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90/014,675	02/16/2021	8032278	CAAMP-001X	7247

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EXAMINER
WASSUM, LUKE S

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12/01/2022	PAPER

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Geotab Exhibit 1009
Geotab v. Omega

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte OMEGA PATENTS, L.L.C.

Appeal 2022-003758
Reexamination Control 90/014,675
Patent 8,032,278 B2
Technology Center 3900

Before JOHN A. JEFFERY, MARC S. HOFF, and ERIC B. CHEN, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant[1] appeals under 35 U.S.C. §§ 134 and 306 the Examiner's decision to reject claims 1–22. We have jurisdiction under 35 U.S.C. §§ 134 and 306, and we heard the appeal on October 28, 2022.

We REVERSE.

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[1] Appellant identifies Omega Patents, L.L.C., as the real party in interest . Appeal Br. 6.

STATEMENT OF THE CASE

This proceeding arose from a request for *ex parte* reexamination filed on February 10, 2021 of United States Patent 8,032,278 ("'278 patent"), issued to Kenneth E. Flick on October 4, 2011.

The '278 patent describes a tracking unit that is compatible with multiple vehicles. To this end, the tracking unit includes a multi-vehicle compatible controller that communicates with a vehicle device using a corresponding vehicle device code from among plural codes. The unit also has a downloading interface that permits downloading enabling data related to the corresponding vehicle device code, where enabling data may be: (1) the vehicle device code; (2) an instruction to select a code from among those already stored; or (3) the data or sequence to allow the controller to generate the vehicle device code. *See* '278 patent, Abstract, col. 23, l. 41–col. 24, l. 4.

Claim 1 is illustrative of the invention and is reproduced below:

1. A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle

device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

RELATED PROCEEDINGS

This appeal is said to be related to various proceedings. First, Appellant informs us of ten related reexamination proceedings involving various patents as follows:

Reexamination Control	**Corresponding U.S. Patent**
90/013,741	6,756,885
90/014,038	6,756,885
90/013,832	7,671,727
90/013,587	8,032,278
90/013,851	8,032,278
90/014,309	8,032,278
90/013,659	6,346,876
90/014,122	6,346,876
90/014,121	7,671,727
90/014,419	8,032,278

See Appeal Br. 8–10; Reply Br. 2–3. We rendered decisions in connection with appeals in reexamination proceedings 90/013,851, 90/014,122, and 90/014,121. *See Ex parte Omega Patents, L.L.C.*, Appeal No. 2018-008119

(PTAB Nov. 13, 2018); *see also Ex parte Omega Patents, L.L.C.*, Appeal No. 2019-006299 (PTAB Dec. 3, 2019); *Ex parte Omega Patents, L.L.C.*, Appeal No. 2020-000387 (PTAB Jan. 28, 2020).

Appellant also informs us of related litigation involving Appellant and various parties, including the CalAmp Corporation ("CalAmp") who, according to Appellant, is the customer of Requester, namely the Innova Electronic Corporation ("Innova"). Appeal Br. 6–8; Reply Br. 2. Appellant adds that CalAmp and Innova requested the last four reexaminations of the '278 patent. Appeal Br. 6.

This litigation includes a case where the U.S. Court of Appeals for the Federal Circuit ("Federal Circuit"), among other things, vacated the judgment of infringement by a Florida District Court and remanded for a new trial to determine whether CalAmp directly infringed the'278 patent's asserted claims. *See Omega Patents, LLC v. CalAmp Corp.*, 920 F.3d 1337, 1349, 1354 (Fed. Cir. 2019).

On remand, the district court conducted a second jury trial, where a jury found that CalAmp directly infringed each asserted claim of the '278 patent. *See Omega Patents, LLC v. CalAmp Corp.*, 13 F.4th 1361, 1367 (Fed. Cir. 2021). On appeal, the Federal Circuit affirmed the court's judgment of infringement of the '278 patent's asserted claims. *See id.* at 1365–66, 1369–70 (concluding that the district court properly denied CalAmp's motion judgment as a matter of law (JMOL) and a new trial in connection with infringement of the '278 patent), 1382. The Federal Circuit, however, vacated and remanded for a new trial on damages. *See id.* at 1365–66, 1382.

Appellant also informs us of an infringement lawsuit involving Enfora, Inc. and Appellant that concluded September 3, 2019.

Lastly, Appellant informs us that the parties settled in connection with infringement litigation involving Firstech, LLC and Appellant. Appeal Br. 8.

THE REJECTION

The Examiner rejected claims 1, 4–11, and 18–22 under 35 U.S.C. §103 as unpatentable over Lowrey (US 6,611,740 B2; issued Aug. 26, 2003) and Lightner (US 6,636,790 Bl; issued Oct. 21, 2003). Final Act. 27–47.[2]

SUBSTANTIAL NEW QUESTION OF PATENTABILITY (SNQ)

Appellant disputes the Examiner's SNQ determination in this proceeding because (1) the present reexamination request over Lowrey is said to be "substantially identical" to the second reexamination request that relied on another prior art reference to Chou,[3] and (2) Requester ostensibly relied on a defective incorporation by reference to Lightner in an attempt to provide the missing multi-compatible controller. Appeal Br. 15–17. Appellant adds that the present reexamination represents a "pattern of harassment" due to serial and duplicative reexamination requests that, according to Appellant, abuse USPTO procedures, waste USPTO resources,

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[2] Throughout this opinion, we refer to: (1) the Final Office Action mailed Oct. 5, 2021 ("Final Act."); (2) the Appeal Brief filed April 1, 2022 ("Appeal Br."); (3) the Examiner's Answer mailed April 21, 2022 ("Ans."); and (4) the Reply Brief filed June 21, 2022 ("Reply Br.").

[3] U.S. Patent 6,330,499 B1; issued Dec. 11, 2011.

contain misleading information, and treat Appellant unfairly. *See* Appeal Br. 17–20; *see also* Reply Br. 2–3.

Appellant's SNQ arguments, however, are untimely and are, therefore, not before us. Notably, Appellant must first request reconsideration of the SNQ before the Examiner before we can review that issue. Manual of Patent Examining Procedure (MPEP) § 2274(VI) (9th ed. rev. 10.2019 June 2020). That was not done here.

To be sure, in a response after final rejection filed December 6, 2021, Appellant included a section entitled "The Request for Reexamination Should Not Have Been Granted" on pages 14 to 16 that includes a subheading entitled "The Original Request Does Not Present An SNQ" on page 14. Although some of the arguments on pages 12 to 16 in Appellant's response after the final rejection are similar to those raised on pages 12 to 14 of a response filed August 23, 2021 to the Examiner's non-final office action, the arguments made *before* the Examiner's final rejection do not squarely address the alleged impropriety of the Examiner's SNQ determination, much less include a section entitled "The Original Request Does Not Present An SNQ" as in the response after the final rejection.

Rather, Appellant's arguments made before the Examiner's final rejection more generally allege that the USPTO should not have granted the reexamination request since it is ostensibly part of a long-standing pattern of "duplicative harassment" that abuses USPTO procedures, wastes USPTO resources, presents misleading information, and treats Appellant unfairly. *See* Response to Non-Final Office Action filed Aug. 23, 2021, at 12–14.

In short, the arguments made *before* the Examiner's final rejection did not specifically request that the Examiner reconsider the SNQ determination, nor did the Appeal Brief identify the communication in which Appellant first requested reconsideration of the SNQ before the Examiner in accordance with MPEP § 2274(VI). But leaving these defects aside, Appellant's SNQ arguments are untimely, for they were first presented *after* final rejection and, consequently, after prosecution closed. *See* MPEP § 2272 ("It is intended that prosecution before the examiner in a reexamination proceeding will be concluded with the final action. Once a final rejection that is not premature has been entered in a reexamination proceeding, the patent owner no longer has any right to unrestricted further prosecution.").

As Section 2272 of the MPEP explains, both the Examiner and Appellant should identify and develop *all* issues *before* the final Office action, including presenting evidence. Therefore, Appellant's arguments regarding the alleged lack of an SNQ is untimely and runs counter to MPEP procedure that, by encouraging identifying and developing *all* issues before final rejection, promotes compact prosecution. This practice is especially important where, as here, the proceeding is treated with special dispatch. *See* 35 U.S.C. § 305; *see also Ethicon, Inc. v. Quigg*, 849 F.3d 1422, 1426 (Fed. Cir. 1988) (noting that "special dispatch" envisions some type of unique, extraordinary, or accelerated movement).

The procedural mandates of MPEP § 2274(VI) underscore this point. As noted previously, MPEP § 2274(VI) requires that Appellant request reconsideration of the SNQ issue before the Examiner before we can review that issue. Although MPEP § 2274(VI) provides two non-limiting examples

of when this reconsideration can be requested, namely in a patent owner's statement or response under 37 C.F.R. §§ 1.530 and 1.111, respectively, this request must nevertheless be made not only before the Appeal Brief, but also during prosecution before the Examiner—not after prosecution closes—particularly when MPEP § 2274(VI) is interpreted in light of the limitations of after-final practice noted in MPEP § 2272. *See* MPEP § 2274(VI) (requiring that a patent owner *first* request consideration before the Examiner, and *then* seek review of the Examiner's SNQ determination before the Board); *see also id.* (requiring a patent owner identify in its Appeal Brief the communication in which the owner first requested reconsideration of the SNQ before the Examiner); MPEP § 2272 (discussing after-final practice). To the extent that Appellant contends that MPEP § 2274(VI) permits requesting reconsideration of the SNQ before the Examiner in the first instance after prosecution closes, as is the case here, such a belated request runs counter to any reasonable interpretation of (1) MPEP § 2274(VI) that requires the request to be made before appeal, and (2) MPEP § 2272 that indicates that prosecution is closed in the reexamination proceeding when the Examiner enters a final rejection.

That is not to say, however, that despite an Appellant not complying with the procedural mandates of MPEP § 2274(VI), the Board cannot review the Examiner's SNQ determination that is so facially improper that no reasonable mind could accept it such that there is no substantial evidence to support the determination. *See In re Gartside*, 203 F.3d 1305, 1312 (Fed. Cir. 2000). One such circumstance would be when it is indisputably clear from the record that a patentability question deemed as an SNQ was already

decided in the original examination, for no procedural rule can enable reexamination under those circumstances. *See In re Recreative Technologies Corp.*, 83 F.3d 1394, 1396–98 (Fed. Cir. 1996).

But that is not the case here. Although the patentability question at issue in *Recreative Technologies* involved the same prior art reference as the question decided in the original examination—not different references as is the case here—cumulative references that repeat the teachings of previously-considered prior art nonetheless preclude an SNQ, for they do not raise a patentability question different from that considered in an earlier examination. *See* MPEP §§ 2242, 2247. These situations, however, are rare as noted in the following guidance from the MPEP:

> For purposes of reexamination, a cumulative reference that is repetitive is one that substantially reiterates verbatim the teachings of a reference that was either previously relied upon or discussed in a prior Office proceeding even though the title or the citation of the reference may be different. However, it is expected that a repetitive reference which cannot be considered by the Office during reexamination will be a rare occurrence since most references teach additional information or present information in a different way than other references, even though the references might address the same general subject matter.

MPEP § 2258.01

Therefore, because Appellant did not preserve the SNQ issue for appeal by first requesting reconsideration of the SNQ before the Examiner, that issue is not before us.

Appellant's other contentions that the present reexamination was allegedly improperly granted due to an alleged abuse of process and,

therefore, the reexamination should be terminated (*see* Appeal Br. 17–20; Reply Br. 2–3) present a petitionable—not appealable—matter that is, therefore, not before us. To the extent Appellant is asking the Board to terminate the reexamination on page 3 of the Reply Brief, we lack the power and jurisdiction to do so. Rather, such termination requests are petitionable matters for the Director—not appealable matters for the Board. *Cf. Ex parte Best Medical Int'l, Inc.*, Appeal No. 2022-002998 at 5–13 (PTAB Aug. 30, 2022) (non-precedential) (citing *In re Vivint*, 14 F.4th 1342 (Fed. Cir. 2021)); *see also Best Medical*, at 11 (noting that the Board's independent review of the Examiner's SNQ determination, "while pertaining to the propriety of the reexamination itself, is nonetheless limited solely to the Examiner's SNQ determination—not other bases, factors, circumstances, or reasons why a reexamination should, or should not, have been ordered.").

Therefore, Appellant's other contentions that the present reexamination was allegedly improperly granted due to an alleged abuse of process and, therefore, the reexamination should be terminated (*see* Appeal Br. 17–20; Reply Br. 2–3) are a petitionable matter that is not before us.

THE OBVIOUSNESS REJECTION

The Examiner finds that Lowrey discloses every element of independent claim 1, but cites Lightner to the extent that Lowrey does not teach additional details regarding how its diagnostic data is vehicle-specific. Final Act. 27–33.

Appellant argues that Lowrey and Lightner fail to disclose every recited feature. Appeal Br. 20–32. According to Appellant, Lowrey's

schema teachings are extremely limited and, therefore, Lowrey lacks the recited downloading interface for permitting downloading enabling data related to at least one corresponding vehicle device code for use by the recited multi-vehicle compatible controller. Appeal Br. 20–25.

Appellant also contends that Lowrey's wireless appliance is not the recited multi-vehicle compatible controller despite the Examiner's findings to the contrary. *See* Appeal Br. 25–27; *see also* Reply Br. 3–9. Although Appellant acknowledges that Lowrey's wireless appliance can be transferred between vehicles, Appellant contends that the transferred wireless appliance would nevertheless be operationally incompatible with a new vehicle as was the case with the device in the Chou reference that was at issue in an earlier appeal involving the '278 patent. Appeal Br. 27–31; *see also* Reply Br. 4–9.

Appellant also argues that the claimed invention is patentable over Lowrey and Lightner because of the submitted evidence of secondary considerations of non-obviousness, namely evidence of licensing, commercial success, copying by others, customer need, and the limited value for products without the invention. Appeal Br. 32–49; *see also* Reply Br. 9–12. Appellant emphasizes that the Examiner failed to give this evidence proper weight, for not only is there a nexus between this evidence and the claimed invention as evidenced by, among other things, a jury verdict in related litigation, the Board found this same evidence persuasive of non-obviousness in an earlier appeal involving the '278 patent. Appeal Br. 32–49; *see also* Reply Br. 9–12.

ISSUE

Under 35 U.S.C. § 103, has the Examiner erred in rejecting claim 1 by finding that Lowrey and Lightner collectively would have taught or suggested: (1) a multi-vehicle compatible controller to be coupled to a vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and (2) a downloading interface for permitting downloading of enabling data related to at least one corresponding vehicle device code for use by said multi-vehicle compatible controller?

This issue turns on whether the Examiner gave the cited evidence of secondary considerations of non-obviousness proper weight.

ANALYSIS

As noted previously, this appeal is related to, among other things, an appeal involving the '278 patent where we held that the Examiner erred in rejecting claim 1 as (1) anticipated by Chou, and (2) obvious over Chou. *See Ex parte Omega Patents, L.L.C.*, Appeal No. 2018-008119 (PTAB Nov. 13, 2018) ("Nov. 2018 Bd. Dec'n").

Chou, however, is no longer at issue: rather, in this appeal, the question is whether the same claim would have been obvious over Lowrey's and Lightner's collective teachings.

But what is common to both appeals is the evidence of secondary considerations of non-obviousness—the very evidence that we found persuasive in reversing the Examiner's obviousness rejection in the earlier

appeal. *See* Nov. 2018 Bd. Dec'n at 14 (finding that Appellant's evidence of secondary considerations of non-obviousness, including licensing, commercial success, copying by others, customer need, and the limited value for accused products without the invention further weighed in Appellant's favor); *accord* Appeal Br. 34–36; Reply Br. 12 (noting this finding).

A key aspect of our finding in this regard is, as it was in a related appeal,[4] (1) the jury's verdict in related litigation that there was a nexus between the evidence of secondary considerations of non-obviousness and the claimed invention, and (2) the Federal Circuit's affirming the district court's upholding the jury's infringement verdict. *See Omega Patents*, 13 F.4th at 1365 (affirming the judgment of infringement of the '278 patent's asserted claims).

Our holding in a related appeal involving similar secondary considerations evidence is instructive in this regard, albeit in connection with a different patent. *Cf.* Dec. 2019 Bd. Dec'n, at 10–18. In that appeal, we found Appellant's evidence of secondary considerations of non-obviousness of the claimed invention, including licensing, commercial success, and copying by others, outweighed the evidence of obviousness and was dispositive of error in the Examiner's rejections. *See id.* at 17–18.

In reaching this conclusion, we emphasized the jury's verdict that there was a nexus for each proffered secondary consideration to the claimed invention. *See id.* at 13 (noting the jury's finding that eight licenses were

[4] *Cf. Ex parte Omega Patents, L.L.C.*, Appeal No. 2019-006299 (PTAB Dec. 3, 2019) ("Dec. 2019 Bd. Dec'n") at 10–18.

key factors in the claimed invention's non-obviousness because the licenses were accepted *due to the merits of the claimed invention*), 14 (noting the jury's finding that the commercial success of products embodying the claimed invention was due to the *claimed invention's merits*—not other factors), and 16 (noting the jury's verdict that others copying the claimed invention was a key factor indicating non-obviousness of that invention).

Notably, as Appellant indicates, the jury made similar findings here. *See* Appeal Br. 38 (reproducing jury verdict form indicating the jury's finding that others accepted licenses under patents *because of the merits of the claimed invention*), 39 (reproducing jury verdict form indicating the jury's finding that accused products covered by the claim were commercially successful *due to the merits of the claimed invention* rather than due to advertising, promotion, salesmanship, or product features other than those claimed), and 42 (reproducing jury verdict form indicating the jury's finding that others copying the claimed invention indicated non-obviousness of the claimed invention).

We found this evidence, along with that pertaining to customer need and the accused products' limited value without the invention, persuasive for showing non-obviousness of claim 1 of the '278 patent—the very claim at issue here. *See* Nov. 2018 Bd. Dec'n at 14 (finding that Appellant's evidence of secondary considerations of non-obviousness, including licensing, commercial success, copying by others, customer need, and the limited value for accused products without the invention further weighed in Appellant's favor).

The Examiner's decision, then, to give this evidence pertaining to licensing, commercial success, and copying "little weight" because the jury's and the court's determinations were based on evidence that is said to be not of record in the present reexamination proceeding (Ans. 16, 19, 21) is problematic. Notably, the Examiner considered our November 2018 decision involving the '278 patent not only in the Final Rejection from which this appeal is taken, but also in granting the request for reexamination. *See* Final Act. 3–4 (discussing the November 2018 Board decision); *see also* Order Granting Request for *Ex Parte* Reexamination mailed Mar. 25, 2021, at 3–4, 15 (discussing the November 2018 Board decision).

By granting the present reexamination proceeding, the Examiner considered our November 2018 decision and, therefore, presumably considered the record evidence supporting that decision—evidence that includes the same evidence of secondary considerations of non-obviousness that we found persuasive and that is also at issue here in this proceeding. *Accord* Reply Br. 11–12 (noting this point).

This secondary considerations evidence cannot be discounted: it plays a critical role in the obviousness analysis and, indeed, weighs in Appellant's favor in that regard. *See Leo Pharm. Products, Ltd. v. Rea*, 726 F.3d 1346, 1358 (Fed. Cir. 2013) ("Objective indicia of nonobviousness play a critical role in the obviousness analysis."). That is, this evidence is not just a cumulative or confirmatory part of the obviousness analysis, but rather is independent evidence of non-obviousness that is the most probative evidence in that regard "in avoiding the trap of hindsight when reviewing, what otherwise seems like, a combination of known elements." *See id.*

We reach this conclusion despite the differences between Lowrey's and Chou's explicit disclosures, namely Lowrey's ability to (1) transfer the controller easily from one vehicle to another in column 4, lines 59 to 63; (2) extract new data-collection schema from an incoming data packet; and (3) collect vehicle data according to that extracted schema in column 7, lines 33 to 36. *See* Lowrey Fig. 2 (steps 36 and 38); *see also* Ans. 12 (noting the differences between Lowrey and Chou).

Given that functionality, Lowrey's wireless appliance is "multi-vehicle compatible" at least in that sense, particularly since each vehicle can include a unique schema. *See* Lowrey col. 7, ll. 55–56. But even when combined with Lightner as the Examiner proposes, we nonetheless find Appellant's evidence of secondary considerations of non-obviousness of the claimed invention, including licensing, commercial success, copying by others, customer need, and the limited value for accused products without the invention, outweighs the evidence of obviousness on this record.

Therefore, we are persuaded that the Examiner erred in rejecting (1) independent claim 1; (2) independent claim 18 that recite commensurate limitations; and (3) dependent claims 4–11 and 19–22 for similar reasons. Because this issue is dispositive regarding our reversing the Examiner's rejection of these claims, we need not address Appellant's other associated arguments.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 4–11, 18–22	103	Lowrey, Lightner		1, 4–11, 18–22

REVERSED

CC:

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RECORD OF ORAL HEARING

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte OMEGA PATENTS, LLC

Appeal 2022-003758
Application 90/014,675
Technology Center 3900

Oral Hearing Held: October 28, 2022

Before JOHN A. JEFFERY, MARC S. HOFF, and ERIC B. CHEN, *Administrative Patent Judges.*

APPEARANCES:

ON BEHALF OF THE APPELLANT:

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The above-entitled matter came on for hearing on Friday, October 28, 2022, commencing at 1:01 p.m. at the U.S. Patent and Trademark Office, 600 Dulany Street, Alexandria, Virginia.

PROCEEDINGS

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1:01 p.m.

JUDGE JEFFERY: Okay, very good. Good afternoon. This is Judge Jeffery here, we have Judges Hoff and Chen joining us at the bench today. And --

JUDGE HOFF: Good afternoon.

JUDGE JEFFERY: Just a couple of housekeeping --

JUDGE CHEN: Good afternoon.

JUDGE JEFFERY: A couple of housekeeping announcements here before we get started. This is for control number re-examination 90/014,675, and for U.S. Patent 8,032,278.

And as you know, this is a video hearing, and sort of a couple of things to keep in mind during the hearing here. The first concern is your right to be heard, so if any time during the proceeding you have technical difficulties, just let the team members know who gave you the connection information and we can get those ironed out.

Second, when you're not speaking, we'd appreciate if you could mute yourself, and that way the ambient noise is minimized to make for a more accurate -- easily to make for a more accurate transcript. And also if you'd identify yourself every time you speak, that way the court reporter can prepare an accurate transcript.

And we also have the entire record in front of us on our electronic system here. We all have the -- all the pages of the briefing and the -- and all the information that was provided in connection with the briefs. And if

you're referring to a particular paper, just let us know what that is, the page number, and we'll -- we can follow along.

And lastly, there may be members of the public attending -- listening to the hearing, so keep that in mind.

So with that, you'll have 20 minutes, and you can begin whenever you like.

MR. ABID: Thank you. Good afternoon. My name is Attorney Jack Abid and I am appearing on behalf of Omega Patent, LLC in Appeal Number 20220-003758. If it pleases the panel, I will begin.

As an initial matter, we note that Claims 2 through 3 and 12 through 17 have been confirmed as patentable by the examiner in this present re-examination. We are here to discuss in particular the rejection of the claims -- the other claims over Lowrey in view of Lightner, and for brevity we will concentrate on Representative Claim 1 for this discussion.

Today marks the culmination of five rounds of re-examination against the 278 Patent. Additionally, the 278 Patent has been involved in multiple litigations, has many licenses to its -- licensees to its technology.

The inventor of the 278 Patent, Mr. Kenneth Flick, is a -- excuse me, Mr. Kenneth Flick is a successful business man and a prolific inventor, and has nearly 150 U.S. patents to his name.

Although this application was filed -- or this patent was filed in 2007, it does have a long chain of priority, going all the way back to 2000.

And in particular, the 278 Patent represents an extension of Mr. Flick's original vehicle tracker patents. It provided a solution that customers were asking for in the automotive vehicle tracker industry. There was a

need to install a single device readily into multiple different vehicles, and for it to be operational in those vehicles.

So with that, I'll turn to Claim 1 of the 278 Patent, the representative claim.

So, Claim 1 of the 278 Patent recites a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle.

The multi-vehicle compatible tracking unit comprises a vehicle position determining device, a wireless communications device, a multi-vehicle tracker controller for control -- cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information. Again, this is the vehicle tracker functionality.

Said multi-vehicle compatible controller to be coupled to release vehicle data, thus for communication there over, with at least one vehicle device, using at least one corresponding vehicle device code from among a plurality thereof for different vehicles.

And it also includes a downloading interface for permitting downloading of enabling data relating the -- to at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

As noted earlier, this is the fifth re-examination of the 278 Patent. And by -- and all by two related requesters, the present requester and the requester's customer, CalAmp. Of course, CalAmp was also party to the first litigation noted in the appeal brief, due to the requester's own product. Excuse me.

Even with 20 years of hindsight bias and five re-examinations, both the requester and its customer could not locate a single reference that provided each and every feature of the 278 Patent's claims, and the requester and its customer have utilized a very simple formula to provide cumulative, repetitive, and harassing improper rejections.

The formula comprises a typical vehicle tracker, plus multi-vehicle compatibility, equals the 278 Patent. In fact, the PTAB has had the opportunity to review and reject one of these earlier rejections in the second re-examination of the 278 Patent, which it was based upon the Chou reference.

Here in this fifth re-examination in 27 -- of the 278 Patent, the primary reference, Lowrey, is similarly deficient to the prior numerous rejections attempted against the 278 Patent. Lowrey discloses yet another vehicle tracker that can report GPS-enabled location to a remote user.

Although Lowery does not -- excuse me, does note it can be installed in different vehicles, as noted in Column 7 of Lowrey, the vehicle trackers configured with a schema component for a specific single vehicle. Indeed, while installed in the same single vehicle a software engineer at the remote station is needed to configure that schema component, to work with that single vehicle.

As supported by the patent owner's --

(Simultaneous speaking.)

JUDGE JEFFERY: Counsel, this is Judge Jeffery here. Counsel, I do have a question about the Lowrey reference there on that point there.

One of the things that the examiner refers to is the passage in Column 4, starting around Line 60 or so, where it basically says that the

wireless appliance can be easily installed in nearly every vehicle with an ODB 2 connecter for a matter of minutes -- in a matter of minutes, and it can also be *easily transferred* from one vehicle to another.

So, *easily transferred* from one vehicle to another. Would that in and of itself be multi-vehicle compatible if I can transfer a wireless appliance from say a Ford to a Chevy?

MR. ABID: Again, this is Jack Abid. Thank you, Judge. So, yes, the examiner did point that section of Column 4 of Lowrey. And what we posit and what our argument is, very similar to the prior Chou reference in the second appeal, is that it too had an ODB connecter and it could physically be plugged into many vehicles.

But it wasn't operational because each vehicle has very different vehicle codes, and because of that it needs further augmentation to have that functionality. The -- as it was interpreted by the PTAB previously, that multi-vehicle compatibility needs to be in the device at the vehicle.

JUDGE JEFFERY: Okay, thank -- this is Judge Jeffery here again. Thank you very much, counsel, for that. I have a question about that particular functionality in Column 4, sort of considered in combination if you will with the functionality in Figure 2, of the Lowrey reference that basically lays out in a flow chart the relevant functionality of the wireless appliance here.

And sort of taking it from the top here in Figure 2, we have at step 22 the wireless appliance with the original data collection schema is employed in a vehicle, and then data's collected from the vehicle and a packet goes out with the data. It's sent to a computer system, a host

computer system, that data set -- it generates a data set that is displayed on a website.

And in Step 30, a technician analyzes the data set to diagnose the vehicle, and then in Step 33, it says based on diagnoses the technician uses the website to select a new schema, and then the -- and you have an incoming data packet comprising a new schema that's sent over the network, and then it is transferred to the vehicle, and then the host vehicle receives the packet, extracts this new data collection schema, and then you collect data according to the new schema.

And the reason I'm sort of going through this flow chart here is my understanding of your position is is that that new schema that basically is selected in Step 33 and is then ultimately extracted and then used to collect more vehicle data, but that updated data collection schema or new data collection schema, that's for the same vehicle. Is that your position?

MR. ABID: Again, this is Attorney Jack Abid. Yes, Judge, that is the position of patent owner.

JUDGE JEFFERY: Okay, this is Judge Jeffery here again. Thank you very much for that.

So, with that, I go back to Column 4 again where it says that the wireless appliance can be *easily* transferred from one vehicle to another, and I'm going to go back now to Figure 2 because I wanted to ask you how that functionality would be realized, if you will, in connection with Figure 2.

Let's say that I start off with Step 22 with a Ford vehicle, let's say a Ford car, wireless appliance with the original data collection schema deployed in the vehicle. So that's deployed in my Ford car, which as I understand your position is pre-installed before it even goes into the car.

Okay, so that's in the Ford, and then the vehicle data's collected, and then the outgoing data packet goes out in Step 24, and then dropping on down we have data generated Step 26, again for the Ford vehicle. And then in Step 28, we display the data set, then the technician analyzes it to diagnose the vehicle, in this case, the Ford.

Now let's say right after Step 30 the technician then moves the wireless appliance to a Chevy at that point, so you have the transfer that's noted in Column 4 that occurs between Step 30 and 33.

So now when we get to Step 33, the wireless appliance is now in a Chevy car, a Chevrolet. And then Step 3 says based on the diagnosis, the technician uses the website to select new schema.

Would that new schema apply still to the Ford even though the wireless appliance is in the Chevy?

MR. ABID: Jack Abid for patent owner again. Your Honor, unfortunately I'm not able to opine on the hypothetical technical aspect that you just asked us about, but I -- what I can tell you is that on the record we do have our technical expert who has stated that the way that the person of ordinary skill in the art would interpret Lowrey is that particular schema is operational for that one vehicle.

And then when it gets updated, the way it's discussed in Column 7 of Lowrey, that it gets updated while it's in that same vehicle, for it is for that same vehicle now. Hypothetically what would happen if you were to do that, since it's not discussed in Lowrey, we're not really able to intelligently opine upon that.

JUDGE JEFFERY: This is Judge Jeffery here. Okay. Thank you for that.

The examiner -- the reason I ask the question is the examiner makes the point that in Column 4, if you could easily transfer the wireless appliance from one vehicle to another, you would have -- it would be operational once you transferred it, seems to be the examiner's position, or the examiner takes the opposite tact to say why would it be -- why would you have such a teaching if it would be inoperative in another vehicle?

Isn't that a fair question?

MR. ABID: Again, Attorney Jack Abid for the patent owner. Your Honor, we're just not certain whether it would actually work, and although it is a fair question for the examiner, a person of ordinary skill in the art would recognize that each of these vehicles has completely different codes.

And so, it is unlikely to be operational, and that was similarly concluded when the PTAB reviewed the Chou reference in the second re-examination that, yes, it was physically compatible because it's ODB and that's a somewhat ubiquitous interface -- physical interface.

But the way -- once you plug in, the way you talk on the data bus is completely different.

JUDGE JEFFERY: Okay, thank you for that, counsel. This is Judge Jeffery here again. One other question I have for you is with respect to the schema itself.

My understanding of your position, and Mr. McAlexander testifies as much with respect to the schema being loaded in the wireless appliance, or essentially before the appliance is installed in the vehicle, essentially that the schema is itself in the appliance, and then the appliance goes into the vehicle.

And the passage which Mr. McAlexander refers to is in Lowrey at Column 6, Line -- starting around Line 62, where it says a schema specific to a given type of vehicle is *typically* loaded onto the micro controller before the wireless appliance is installed in the vehicle, and that refers to Step 22 of Figure 2, which is the first step in that flow chart.

I emphasize the word "typically" there. Does that mean that it is *always* loaded onto the micro controller, or does "typically" mean not necessarily always, but perhaps *usually* loaded onto the micro controller? In other words, is this an absolute or is this just maybe some of the time?

MR. ABID: Again Attorney Jack Abid for the patent owner. Your Honor, again, we're unable to opine exactly how that would work, but given that it doesn't explain in any further detail than this particular column -- and of course, also referenced in Figure 2, saying that Lowery's is an initial schema.

Again, "typically," is kind of a carve out, so it's hard to put ourselves in the feet -- or the shoes of the person who drafted this or a person of ordinary skill in the art, but I can tell you that our technical expert has review -- who was also a technical expert for the related litigation and is extremely familiar with this field, went through it and thought -- and concluded that it would be loaded for that initial single vehicle.

JUDGE JEFFERY: Judge Jeffery here. Thank you, counsel. What in your opinion does the word "typically" mean in that context?

MR. ABID: Again, this is Attorney Jack Abid for the patent owner. Again I'm at a bit of a loss on how to opine about "typically." I mean, I guess the way -- whether and how relevant my interpretation of it would be, but I would conclude that -- I mean, I would just give it a layperson's

interpretation and I would probably rely on the -- also the input of our technical expert for that interpretation, and that it is loaded onto there and must be there.

JUDGE JEFFERY: Judge Jeffery here. Thank you very much, counsel, for that.

I have another question for you that goes to the secondary considerations in evidence that was -- you know, we have several arguments directed to various secondary considerations of non-obviousness, and it's my understanding that the evidence that's relied on in that regard essentially is the same evidence that was used in the -- in connection with the second re-examination of the 278 Patent.

And -- but the examiner in the answer says that he didn't have -- that it's not of record, and therefore he's giving the evidence, at least with respect to the licensing commercial success and copying evidence, that the jury -- in connection with the jury verdict, that that is given little weight by the examiner.

And then in your reply brief, you basically point out that that was improper to do that. The first question is is that evidence of record in the second re-examination but not here?

MR. ABID: Again, Attorney Jack Abid for the patent owner. Your Honor, yes, the -- in the second re-exam, we entered our date of record the entire trial transcript, including all exhibits -- well, not all exhibits. To be more precise, as I recall, the exhibit listing and the final order, the jury verdict, pretty much anything of relevance in that particular litigation, was introduced in the second.

And then of course, when determining SNQ for this fifth re-exam, the examiner did thoroughly review the second re-examination to make sure this was an SNQ, but -- although we disagree, he did review. And so he had an opportunity to do that.

JUDGE JEFFERY: This is Judge Jeffery here. Thank you, counsel, for that. My next question is why wasn't that same evidence provided from the second re-examination provided here, given that the same arguments and same bases were relied upon in this re-examination?

MR. ABID: Well, we didn't think it was absolutely necessary. I believe this was a new -- this statement from the examiner was after we had the right to introduce -- admit new evidence. And we already had the -- both jury verdicts, the final order, the PTAB decision from the second re-exam.

There was a lot of periphery evidence already in the record and we didn't feel it was necessary to burden the record again with, like -- with -- excuse me -- with 1,000 pages of transcript from a litigation where we have the dispositive findings from the judge, from the jury, the PTAB.

I mean, we really had all that on the record, so we didn't think it was necessary if the examiner had come out after the first office action and said I need this in the record here, we would happily have done so, and it, you know, arguably is part of the record because it's in the second re-exam.

JUDGE JEFFERY: Judge Jeffery here. Thank you very much, counsel. So, providing that ref -- all the evidence again in this record would've essentially have been cumulative in a sense because the examiner had already considered that very evidence presumably in finding the substantial new question of patentability here in this proceeding.

And the examiner in other parts of the answer indicates that the examiner considered our decision in the second re-examination, so that also touched on the persuasiveness of the secondary considerations evidence that we had considered.

So presumably then the reason why the evidence wasn't provided here in this re-examination was because it would've been just essentially repetitive or cumulative to that which was already considered. Is that a fair statement?

MR. ABID: Again, Attorney Jack Abid for the patent owner. Yes.

JUDGE JEFFERY: Judge Jeffery here again. Thank you very much, counsel. Those are all the questions that I have. If the panel has any other questions -- and we're basically out of time here, but if there are any further questions, we can entertain them now.

JUDGE CHEN: This is Judge Chen and I have no questions.

JUDGE HOFF: No further questions, thank you.

JUDGE JEFFERY: Okay, Judge Jeffery here again. Well, the hearing -- we're out of time, so we'll go ahead and adjourn the hearing and the case is submitted. Thank you, counsel, for your arguments and time and I appreciate your patience here during the video hearing. So, we are now off the record.

(Whereupon, the above-entitled matter went off the record at 1:25 p.m.)

THIRD PARTY REQUESTER

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,675	02/16/2021	8032278	CAAMP-001X	7247

27975 7590 10/17/2022

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EXAMINER	
WASSUM, LUKE S	

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10/17/2022	PAPER

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The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte OMEGA PATENTS, L.L.C.

Appeal 2022-3758
Application 90/014,675
Technology Center 3900

Before Deputy Clerk, Hearing Operations.

ORDER GRANTING REQUEST FOR VIDEO HEARING

An oral hearing before a merits panel of the Patent Trial and Appeal Board has been scheduled to be included in the session of hearings commencing **Friday, October 28, 2022 at 1:00 PM ET**. A Video Oral Hearing has been granted.

This appeal hearing is set to be heard in a session of oral hearings beginning at **1:00 PM ET**. **PTAB Hearings will provide Appellant with connection information prior to the hearing.** The Board will provide a court reporter and a transcript of the video will be entered into the record. All other expenses involved with the Video Hearing, such as the cost of the call, must be borne by Appellant.

The panel will have access to all papers in Patents E2E. During the oral hearing, Appellant is advised to identify clearly and specifically all papers referenced (e.g., page of Appeal Brief; portions of a patent by column and line numbers) to ensure the clarity and accuracy of the court reporter's transcript. In addition, Appellant is advised to identify themselves each time they speak. Furthermore, the remote nature of the oral hearing may also result in an audio lag, and so Appellant is advised to observe a pause prior to speaking, so as to avoid speaking over others.

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Appeal No:	2022-003758
Appellant:	OMEGA PATENTS, L.L.C. et al.
Reexamination Control No:	90/014,675
Hearing Room:	Alexandria: Room D
Hearing Docket:	Business Methods
Hearing Date:	Friday, October 28, 2022
Hearing Time:	1:00 PM ET
Location:	**Madison Building - East Wing** **600 Dulany Street, 9th Floor** **Alexandria, Virginia 22313-1450**

APPELLANT RESPONSE TO NOTICE OF HEARING

Appellant responds to the NOTICE OF HEARING in the above-identified appeal.

Hearing Attendance Options (please select one)

( ) I elect an IN-PERSON hearing and will appear at a hearing room in the following USPTO office:

( ) ALEXANDRIA, VA - 600 Dulany Street
( ) DALLAS, TX - 207 South Houston Street
( ) SAN JOSE, CA - 26 S. Fourth Street
( ) DETROIT, MI - 300 River Place Drive
( ) DENVER, CO - 1961 Stout Street

(XX) I elect a remote VIDEO hearing and will appear from a non-USPTO location that I secure for myself.

( ) I elect a TELEPHONIC hearing.

( ) I WAIVE the hearing.

( ) I am requesting to RESCHEDULE the hearing. **A separate paper must be filed.**

Conflicts

To aid the judges assigned to the appeal in determining whether any conflicts exist that may require a recusal, please list the names of any additional person(s) who will be participating in the oral hearing and their affiliation with Appellant.

JACK G. ABID, Patent Attorney for Patent Owner

CHRISTOPHER F. REGAN, Patent Attorney for Patent Owner

Special Requests

If Appellant has any special requests related to appearing at an in-person oral hearing, please list those requests. Special requests may include physical needs that limit mobility, or visual or hearing impairments. For any special request, please indicate any ways that the PTAB may accommodate the special request.

For any questions regarding Appellant's response to the NOTICE OF HEARING, Appellant may be reached via the contact information provided below.

JACK G. ABID	58,237
Typed or Printed Name of Attorney/Agent/Appellant	Registration No.
JABID@ALLENDYER.COM	407-841-2330
E-Mail address	Phone number
/JACK ABID/	10-14-22
Signature of Attorney/Agent/Appellant	Date

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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
90/014,675	**10/14/2022 12:33:10 PM ET**	**CAAMP-001X**

Title of Invention

VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS

Application Information

APPLICATION TYPE	Utility / ex parte reexam	PATENT #	8032278
CONFIRMATION #	7247	FILED BY	Sheryl Scheibe
PATENT CENTER #	61067130	FILING DATE	02/16/2021
CUSTOMER #	27975	FIRST NAMED INVENTOR	- 8032278
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Jack Abid

Documents

TOTAL DOCUMENTS: 2

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
SLS 58106CIP1_REX5 RESPONSE.pdf	3	Confirmation of Hearing by Appellant	120 KB
Warning: The attached file contains comments or annotations. Comments are not recommended and may cause processing problems with the document.			
SLS 58106CIP1_REX5 CERTIFICATE.pdf	1	Reexam Certificate of Service	64 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)

SLS 58106CIP1_REX5 RESPONSE.pdf	56F5393A0B5E2F943E9B980ABC85F353648A991689C2428349 52C61A7F2E0E370773B65989F986F0AAE3C5AD19E53406C319 0B993FE1D4F4BE018E7B24C88F9B
SLS 58106CIP1_REX5 CERTIFICATE.pdf	629293E3B26829AA975549DB0F1B0CF48E830ACCC599EB882 2A836061A3988882A354DA4AD9ECF6AE537761774B4407DF6B 253E36F278D97234AAA9076037DAD

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,675	02/16/2021	8032278	CAAMP-001X	7247

27975 7590 09/28/2022

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EXAMINER
WASSUM, LUKE S

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
09/28/2022	PAPER

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The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex Parte Omega Patents LLC,
Patent Owner and Appellant

Appeal 2022-003758
Reexamination Control 90/014,675
Patent 8,032,278
Technology Center 3900

Before RAE LYNN P. GUEST, *Administrative Patent Judge*.

DECISION ON REQUEST TO RESCHEDULE HEARING

This is a decision on Patent Owner's request to reschedule the oral hearing, entitled "REQUEST FOR RESCHEDULING OF ORAL HEARING," filed on September 26, 2022 ("Petition"). The request to reschedule is taken as a petition under 37 C.F.R. § 41.3. The $420 petition fee pursuant to 37 C.F.R. § 41.20(a) has been charged to Patent Owner's deposit account, as authorized on page 2 of the petition.

An oral hearing before a merits panel of the Patent Trial and Appeal Board has been set for Thursday, September 29, 2022, at 1:00 P.M. ET, as a Remote Video Hearing. The notice setting the hearing date was mailed to Patent Owner on July 21, 2022. In this *ex parte* reexamination appeal,

Patent Owner submitted a request that the oral hearing be rescheduled on September 26, 2022.

In the petition to reschedule, it is stated that:

> The undersigned attorney filed a response on August 5, 2022 indicating attendance via remote video hearing. Currently, the undersigned attorney's firm office resides in an area under a hurricane watch due to the forecasted path of Hurricane Ian. Moreover, the National Weather Service has forecasted this same area will be subject to an extreme weather event on Wednesday - Thursday, September 28-29, 2022. Local utility operators in the area are projecting wide spread outages in the aftermath of Hurricane Ian. Because of the likelihood of Internet and power outages, the undersigned attorney requests this hearing be delayed 1 week. The undersigned attorney is willing to submit to any new date in the next 4 weeks at the convenience of the Patent Trial and Appeal Board. The undersigned attorney submits there is no substitute counsel available as our offices reside in the Orlando area, which is within the forecasted path of Hurricane Ian. If any additional extension and/or fee is required, authorization is given to charge Deposit Account No. 01-0484.

Petition 1-2.

Pursuant to 35 U.S.C. § 305, all *ex parte* reexamination proceedings, including any appeals to the Patent Trial and Appeal Board, will be conducted with special dispatch within the Office. Given this statutory mandate, a showing of good cause is required in order to grant a request to reschedule an oral hearing. Patent Owner's attorney requests to reschedule the remote video hearing of September 29, 2022, and proposes that the oral hearing be delayed one week, but is willing to submit to a new date within one month. *Id.* Patent Owner's attorney states that the reason for the request is because of the likelihood of Internet and power outages due to the

attorney's firm office being in an area under a hurricane watch due to the forecasted path of Hurricane Ian; the National Weather Service has forecasted this same area will be subject to an extreme weather event on Wednesday- Thursday, September 28-29, 2022; and local utility operators in the area are projecting wide spread outages in the aftermath of Hurricane Ian. *Id.*, at 1-2.

In view of the specific facts and circumstances in this *ex parte* reexamination appeal, the request to reschedule the oral hearing is GRANTED. The remote video oral argument is rescheduled for Friday, October 28, 2022, at 1:00 PM. ET. Any further details regarding the oral hearing will be provided by the Hearings team, in due course.

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Attorney for Requester:
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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The United States Patent and Trademark Office
PATENT TRIAL AND APPEAL BOARD

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Appeal No:	2022-003758
Appellant:	OMEGA PATENTS, L.L.C. et al.
Reexamination Control No:	90/014,675
Hearing Room:	Alexandria: Room D
Hearing Docket:	Business Methods
Hearing Date:	Friday, October 28, 2022
Hearing Time:	1:00 PM ET
Location:	**Madison Building - East Wing** **600 Dulany Street, 9th Floor** **Alexandria, Virginia 22313-1450**

NOTICE OF HEARING - ALEXANDRIA, VIRGINIA
RESPONSE REQUIRED WITHIN 21 DAYS

The Patent Trial and Appeal Board (PTAB) will hear the above-identified appeal on the date indicated. The hearing will commence at the time set, and as soon as the argument in one appeal concludes, the succeeding appeal will be taken up. The time allowed for argument is 20 minutes, unless additional time is requested and approved before the argument commences. If the application involved in this appeal has been published, the hearing will be open to the public.

Hearing Attendance Confirmation or Waiver

Appellant is required to confirm attendance at the hearing or waive the hearing within 21 days of the mailing date of this notice. Appellant may confirm or waive attendance by completing the "APPELLANT RESPONSE TO NOTICE OF HEARING" and returning it to the PTAB.

Options for Hearing Attendance

If Appellant opts to attend the hearing, Appellant may appear in-person, by video, or by telephone. In Appellant's response to the NOTICE OF HEARING, Appellant should indicate the manner in which Appellant will appear for the hearing.

If Appellant is no longer interested in having a hearing, then Appellant must file a waiver of the hearing with the PTAB. This allows the panel of Administrative Patent Judges assigned to the appeal to act promptly on the appeal without waiting for the hearing date.

If Appellant fails to respond to this NOTICE OF HEARING, the PTAB will issue a decision on the briefs based on the written record.

In-Person Hearing Attendance

The hearing will take place at the location specified in the header, however Appellant may request to appear at a hearing room in the USPTO Alexandria headquarters or a hearing room or conference room in one of the USPTO regional offices located in (1) Detroit, Michigan; (2) Dallas, Texas; (3) Denver, Colorado; and (4) San Jose, California. The PTAB attempts to grant all hearing location requests, subject to space availability.

Usage of a hearing room or a conference room in the USPTO Alexandria headquarters or one of the regional offices is not guaranteed until confirmed by the PTAB. In the event the request cannot be granted, then Appellant is responsible for proposing an alternate option, such as selecting a different USPTO location, by telephone, or by video, which is subject to approval by PTAB.

Appellant's selection and the PTAB's approval to utilize a hearing room or a conference room other than the designated hearing location does not guarantee that an Administrative Patent Judge assigned to the appeal will be physically present at that location, and the hearing itself may be conducted via video.

Remote Video Hearing Attendance

Appellant may participate in a hearing by video at a location other than the USPTO Alexandria headquarters or a regional office. Appellant will receive an Order detailing the video hearing instructions.

Telephonic Hearing Attendance

Appellant may participate in a hearing by telephone. Appellant will receive an Order detailing the telephonic hearing instructions.

Remote Viewing Request

Members of the public may request to remotely view this oral hearing. If resources are available, the Board generally expects to grant such requests.

In addition to remote viewing of an oral hearing, the USPTO Alexandria headquarters and the USPTO regional office locations in (1) Detroit, Michigan; (2) Dallas, Texas; (3) Denver, Colorado; and (4) San Jose, California are generally available for any member of the public to view a hearing, subject to room availability and advance coordination with the PTAB.

If Appellant objects to the Board granting such requests, for example, because confidential information may be discussed, the party must notify the Board by contacting PTABHearings@uspto.gov at least five business days prior to the oral hearing date.

Legal Experience and Advancement Program

The Board has established the "Legal Experience and Advancement Program," or "LEAP," to encourage advocates before the Board to develop their skills and to aid in succession planning for the next generation. The Board defines a LEAP practitioner as a patent agent or attorney having three (3) or fewer substantive oral arguments in any federal tribunal, including PTAB. Whether an argument is "substantive" for purposes of determining whether an advocate qualifies as a LEAP practitioner will be made on a case-by-case basis with considerations to include, for example, the amount of time that the practitioner argued, the circumstances of the argument, and whether the argument concerned the merits or ancillary issues.

Appellants are encouraged to participate in the Board's LEAP program. Appellant may request that a LEAP practitioner participate in the program and conduct at least a portion of the oral argument. In exchange, the Board will grant up to fifteen (15) minutes of additional argument time, depending on the length of the proceeding and the PTAB's hearing schedule. Appellant should submit a request and LEAP verification form no later than at least five (5) business days before the hearing, by email to the Board at PTABHearings@uspto.gov. A combined LEAP Practitioner Request for Oral Hearing Participation and Verification Form is available on the LEAP website, www.uspto.gov/leap.

A LEAP practitioner may conduct the entire oral argument or may share time with other counsel, provided that the LEAP practitioner is offered a meaningful and substantive opportunity to argue before the Board. Appellant has the discretion as to the type and quantity of oral argument that will be conducted by the LEAP practitioner. Moreover, whether the LEAP practitioner conducts the argument in whole or in part, the Board will permit more experienced counsel to provide some assistance to the LEAP practitioner, if necessary, during oral argument, and to clarify any statements on the record before the conclusion of the oral argument. Importantly, the Board does not draw any inference about the importance of a particular issue or issues, or the merits of Appellant's arguments regarding that issue, from the Appellant's decision to have (or not to have) a LEAP practitioner argue.

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As always, all practitioners appearing before the Board shall demonstrate the highest professional standards. All practitioners are expected to have a command of the factual record, the applicable law, and Board procedures, as well as the authority to commit the party they represent. The Board discerns that it is often LEAP practitioners who have the best understanding of the facts of the case and the evidence of record, and the Board encourages their participation. Examples of the issues that a LEAP practitioner may argue include claim construction argument(s), or patentability argument(s) including, e.g., analyses of prior art or objective indicia of non-obviousness.

Special Requests

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Submission of Appellant's Demonstratives

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Submission of Appellant's Response to the Notice of Hearing*

To return a completed APPELLANT RESPONSE TO NOTICE OF HEARING, Appellant may use one of the following transmittal methods:

1. By the USPTO Electronic Filing System (EFS), available at http://www.uspto.gov/patents/process/file/efs/

2. By USPS first class mail to the PTAB mailing address:

Patent Trial and Appeal Board
United States Patent and Trademark Office

P.O. BOX 1450
Alexandria, Virginia 22313-1450

In all communications relating to this appeal, please identify the appeal number along with the underlying application number.

Questions

For further information about hearings, see 37 CFR § 41.47 and the Hearings section of the PTAB webpage:
http://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/hearings. Also, for questions, please contact the PTAB Hearings Clerk at 571-272-9797.

The United States Patent and Trademark Office
PATENT TRIAL AND APPEAL BOARD

ADD+G - 27975 1135 East State Road 434, Suite 3001 Winter Springs, FLORIDA 32708	Appeal No: Appellant: Reexamination Control No: Hearing Room: Hearing Docket: Hearing Date: Hearing Time: Location:	2022-003758 OMEGA PATENTS, L.L.C. et al. 90/014,675 Alexandria: Room D Business Methods Friday, October 28, 2022 1:00 PM ET **Madison Building - East Wing** **600 Dulany Street, 9th Floor** **Alexandria, Virginia 22313-1450**

APPELLANT RESPONSE TO NOTICE OF HEARING

Appellant responds to the NOTICE OF HEARING in the above-identified appeal.

Hearing Attendance Options (please select one)

( ) I elect an IN-PERSON hearing and will appear at a hearing room in the following USPTO office:

( ) ALEXANDRIA, VA - 600 Dulany Street
( ) DALLAS, TX - 207 South Houston Street
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( ) DETROIT, MI - 300 River Place Drive
( ) DENVER, CO - 1961 Stout Street

( ) I elect a remote VIDEO hearing and will appear from a non-USPTO location that I secure for myself.

( ) I elect a TELEPHONIC hearing.

( ) I WAIVE the hearing.

( ) I am requesting to RESCHEDULE the hearing. **A separate paper must be filed.**

Conflicts

To aid the judges assigned to the appeal in determining whether any conflicts exist that may require a recusal, please list the names of any additional person(s) who will be participating in the oral hearing and their affiliation with Appellant.

_____

_____

Special Requests

If Appellant has any special requests related to appearing at an in-person oral hearing, please list those requests. Special requests may include physical needs that limit mobility, or visual or hearing impairments. For any special request, please indicate any ways that the PTAB may accommodate the special request.

_____

_____

For any questions regarding Appellant's response to the NOTICE OF HEARING, Appellant may be reached via the contact information provided below.

_____	_____
Typed or Printed Name of Attorney/Agent/Appellant	Registration No.
_____	_____
E-Mail address	Phone number
_____	_____
Signature of Attorney/Agent/Appellant	Date

cc:

STETINA BRUNDA GARRED & BRUCKER
75 Enterprise
Suite 250
Aliso Viejo, CA 92656

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: **KENNETH E. FLICK** Request for Reexamination of **8,032,278** Control No. **90/014,675** Confirmation No. **7247** Filing Date: **2/16/2021** For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	)	Attorney Docket No.: **(58106CIP1_REX5)** Examiner: **L. WASSUM** Art Unit: **3992**

REQUEST FOR RESCHEDULING OF ORAL HEARING

EFILE

Commissioner for Patents

Commissioner:

Appellant hereby requests that the Oral Hearing for the appeal of the above noted ex *parte* reexamination be rescheduled. The Notice of Hearing mailed July 21, 2022 indicated a hearing date of September 29, 2022.

The undersigned attorney filed a response on August 5, 2022 indicating attendance via remote video hearing. Currently, the undersigned attorney's firm office resides in an area under a hurricane watch due to the forecasted path of Hurricane Ian. Moreover, the National Weather Service has forecasted this same area will be subject to an extreme weather event on Wednesday-Thursday, September 28-29, 2022. Local utility operators in the area are projecting wide spread outages in the aftermath of Hurricane Ian. Because of the likelihood of Internet and power outages, the undersigned attorney requests this hearing be

delayed 1 week. The undersigned attorney is willing to submit to any new date in the next 4 weeks at the convenience of the Patent Trial and Appeal Board. The undersigned attorney submits there is no substitute counsel available as our offices reside in the Orlando area, which is within the forecasted path of Hurricane Ian.

If any additional extension and/or fee is required, authorization is given to charge Deposit Account No. 01-0484.

Respectfully submitted,

/JACK ABID/

_____

JACK GEORGE ABID
Reg. No. 58,237
Allen, Dyer, Doppelt & Gilchrist, P.A.
255 S. Orange Avenue, Suite 1401
Post Office Box 3791
Orlando, Florida 32802
407-841-2330
407-841-2343 fax
Attorney for the Patent Owner

In re Patent Application of:
KENNETH E. FLICK
Reexamination Control No. **90/014,675**
Filed: **2/16/2021**
_____/

CERTIFICATE OF SERVICE

Certificate of Service in compliance with 37 C.F.R. §1.530(c)

Pursuant to 37 C.F.R. §§1.530(c), 1.248, I hereby certify that on September 26, 2022, a complete copy of this Request is being served via First Class U.S. Mail upon Third Party Requester at the correspondence address as shown in PAIR:

Mark B. Garred
STETINA BRUNDA GARRED & BRUCKER
75 Enterprise, Suite 250
Aliso Viejo, California 92656

Respectfully submitted,

/JACK GEORGE ABID/

_____
Jack G. Abid

Electronic Acknowledgement Receipt

EFS ID:	46691359
Application Number:	90014675
International Application Number:	
Confirmation Number:	7247
Title of Invention:	VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS
First Named Inventor/Applicant Name:	8032278
Customer Number:	27975
Filer:	Jack G. Abid/Sheryl Scheibe
Filer Authorized By:	Jack G. Abid
Attorney Docket Number:	CAAMP-001X
Receipt Date:	26-SEP-2022
Filing Date:	16-FEB-2021
Time Stamp:	13:38:16
Application Type:	Reexam (Patent Owner)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Appeal Postponement of Oral Hearing Request	SLS58106CIP1REX5REQUESTFORRESCHEDULING.pdf	95772 74c3336590391b196d023420a4cb26c5f53511e3	no	3

Warnings:

Information:	
Total Files Size (in bytes):	95772

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,675	02/16/2021	8032278	CAAMP-001X	7247

27975 7590 09/26/2022

ADD+G - 27975
1135 East State Road 434, Suite 3001
Winter Springs, FL 32708

EXAMINER
WASSUM, LUKE S

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
09/26/2022	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte OMEGA PATENTS, L.L.C.

Appeal 2022-3758
Application 90/014,675
Technology Center 3900

Before Deputy Clerk, Hearing Operations.

ORDER GRANTING REQUEST FOR VIDEO HEARING

An oral hearing before a merits panel of the Patent Trial and Appeal Board has been scheduled to be included in the session of hearings commencing **Thursday, September 29, 2022 at 1:00 PM ET**. A Video Oral Hearing has been granted.

This appeal hearing is set to be heard in a session of oral hearings beginning at **1:00 PM ET**. **PTAB Hearings will provide Appellant with connection information prior to the hearing.** The Board will provide a court reporter and a transcript of the video will be entered into the record. All other expenses involved with the Video Hearing, such as the cost of the call, must be borne by Appellant.

The panel will have access to all papers in Patents E2E. During the oral hearing, Appellant is advised to identify clearly and specifically all papers referenced (e.g., page of Appeal Brief; portions of a patent by column and line numbers) to ensure the clarity and accuracy of the court reporter's transcript. In addition, Appellant is advised to identify themselves each time they speak. Furthermore, the remote nature of the oral hearing may also result in an audio lag, and so Appellant is advised to observe a pause prior to speaking, so as to avoid speaking over others.

ADD+G - 27975
1135 EAST STATE ROAD 434, SUITE 3001
WINTER SPRINGS FL 32708

The United States Patent and Trademark Office
PATENT TRIAL AND APPEAL BOARD

ADD+G-27975	Appeal No:	2022-003758
1135 East State Road	Appellant:	Omega Patents, L.L.C.
434 Suite 3001	Reexamination Control No:	90/014,675
Winter Springs, FL 32708	Hearing Room;	A
	Hearing Docket:	Business Methods
	Hearing Date:	Thursday, September 29, 2022
	Hearing Time:	1:00 PM ET
	Location:	**Madison Building-East Wing** **600 Dulany Street, 9th Floor** **Alexandria, VA 22313-1450**

APPELLANT RESPONSE TO NOTICE OF HEARING

Appellant responds to the NOTICE OF HEARING in the above-identified appeal.

Hearing Attendance Options (please select one)

( ) I elect an IN-PERSON hearing and will appear at a hearing room in the following USPTO office:

( ) ALEXANDRIA, VA – 600 Dulany Street
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( ) I WAIVE the hearing.

( ) I am requesting to RESCHEDULE the hearing. **A separate paper must be filed.**

Conflicts

To aid the judges assigned to the appeal in determining whether any conflicts exist that may require a recusal, please list the names of any additional person(s) who will be participating in the oral hearing and their affiliation with Appellant.

JACK G. ABID, Patent Attorney for Patent Owner

CHRISTOPHER F. REGAN, Patent Attorney for Patent Owner

Special Requests

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JACK G. ABID	58,237
Typed or Printed Name of Attorney/Agent/Appellant	Registration No.
JABID@ALLENDYER.COM	407-841-2330
E-Mail address	Phone number
/JACK ABID/	8-5-2022
Signature of Attorney/Agent/Appellant	Date

cc: Stetina Brunda Garred & Brucker
75Enterprise
Suite 250
Aliso Viejo, CA 92656

In re Patent Application of:
KENNETH E. FLICK
Reexamination Control No. **90/014,675**
Filed: **2/16/2021**
_____/

CERTIFICATE OF SERVICE

Certificate of Service in compliance with 37 C.F.R. §1.530(c)

Pursuant to 37 C.F.R. §§1.530(c), 1.248, I hereby certify that on August 5, 2022, a complete copy of this filing is being served via First Class U.S. Mail upon Third Party Requester at the correspondence address as shown in PAIR:

Mark B. Garred
STETINA BRUNDA GARRED & BRUCKER
75 Enterprise, Suite 250
Aliso Viejo, California 92656

Respectfully submitted,

/JACK GEORGE ABID/

Jack G. Abid

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
90/014,675	**08/05/2022 12:31:24 PM ET**	**CAAMP-001X**

Title of Invention

VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS

Application Information

APPLICATION TYPE	Utility / ex parte reexam	PATENT #	8032278
CONFIRMATION #	7247	FILED BY	Sheryl Scheibe
PATENT CENTER #	60846960	FILING DATE	02/16/2021
CUSTOMER #	27975	FIRST NAMED INVENTOR	- 8032278
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Jack Abid

Documents

TOTAL DOCUMENTS: 1

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
58106CIP1_REX5 ORAL HEARING.pdf	3	Confirmation of Hearing by Appellant	322 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
58106CIP1_REX5 ORAL HEARING.pdf	0B53B886215236F8FACA71E43AC0C22F231CAF16DA556374E31AA2A70D9BE26824162DD1E0A9EFAB70D7298E89FC850EAEF8C797AAC07C254D301FD0771FBC82

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,675	02/16/2021	8032278	CAAMP-001X	7247

27975 7590 07/21/2022

ADD+G - 27975
1135 East State Road 434, Suite 3001
Winter Springs, FL 32708

EXAMINER
WASSUM, LUKE S

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
07/21/2022	PAPER

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The time period for reply, if any, is set in the attached communication.

The United States Patent and Trademark Office
PATENT TRIAL AND APPEAL BOARD

ADD+G-27975
1135 East State Road
434 Suite 3001
Winter Springs, FL 32708

Appeal No:	2022-003758
Appellant:	Omega Patents, L.L.C. et al.
Reexamination Control No:	90/014,675
Hearing Room:	A
Hearing Docket:	Business Methods
Hearing Date:	Thursday, September 29, 2022
Hearing Time:	1:00 PM ET
Location:	**Madison Building-East Wing 600 Dulany Street, 9**

NOTICE OF HEARING
RESPONSE REQUIRED WITHIN 21 DAYS

The Patent Trial and Appeal Board (PTAB) will hear the above-identified appeal on the date indicated. The hearing will commence at the time set, and as soon as the argument in one appeal concludes, the succeeding appeal will be taken up. The time allowed for argument is 20 minutes, unless additional time is requested and approved before the argument commences. If the application involved in this appeal has been published, the hearing will be open to the public.

Hearing Attendance Confirmation or Waiver

Appellant is required to confirm attendance at the hearing or waive the hearing within 21 days of the mailing date of this notice. Appellant may confirm or waive attendance by completing the "APPELLANT RESPONSE TO NOTICE OF HEARING" and returning it to the PTAB.

Options for Hearing Attendance

If Appellant opts to attend the hearing, Appellant may appear in-person, by video, or by telephone. In Appellant's response to the NOTICE OF HEARING, Appellant should indicate the manner in which Appellant will appear for the hearing.

If Appellant is no longer interested in having a hearing, then Appellant must file a waiver of the hearing with the PTAB. This allows the panel of Administrative Patent Judges assigned to the appeal to act promptly on the appeal without waiting for the hearing date.

If Appellant fails to respond to this NOTICE OF HEARING, the PTAB will issue a decision on the briefs based on the written record.

In-Person Hearing Attendance

The hearing will take place at the location specified in the header, however Appellant may

request to appear at a hearing room in the USPTO Alexandria headquarters or a hearing room or conference room in one of the USPTO regional offices located in (1) Detroit, Michigan; (2) Dallas, Texas; (3) Denver, Colorado; and (4) San Jose, California. The PTAB attempts to grant all hearing location requests, subject to space availability.

Usage of a hearing room or a conference room in the USPTO Alexandria headquarters or one of the regional offices is not guaranteed until confirmed by the PTAB. In the event the request cannot be granted, then Appellant is responsible for proposing an alternate option, such as selecting a different USPTO location, by telephone, or by video, which is subject to approval by PTAB.

Appellant's selection and the PTAB's approval to utilize a hearing room or a conference room other than the designated hearing location does not guarantee that an Administrative Patent Judge assigned to the appeal will be physically present at that location, and the hearing itself may be conducted via video.

Remote Video Hearing Attendance

Appellant may participate in a hearing by video at a location other than the USPTO Alexandria headquarters or a regional office. Appellant will receive an Order detailing the video hearing instructions.

Telephonic Hearing Attendance

Appellant may participate in a hearing by telephone. Appellant will receive an Order detailing the telephonic hearing instructions.

Remote Viewing Request

Members of the public may request to remotely view this oral hearing. If resources are available, the Board generally expects to grant such requests.

In addition to remote viewing of an oral hearing, the USPTO Alexandria headquarters and the USPTO regional office locations in (1) Detroit, Michigan; (2) Dallas, Texas; (3) Denver, Colorado; and (4) San Jose, California are generally available for any member of the public to view a hearing, subject to room availability and advance coordination with the PTAB.

If Appellant objects to the Board granting such requests, for example, because confidential information may be discussed, the party must notify the Board by contacting PTABHearings@uspto.gov at least five business days prior to the oral hearing date.

Legal Experience and Advancement Program

The Board has established the "Legal Experience and Advancement Program," or "LEAP," to encourage advocates before the Board to develop their skills and to aid in succession planning for the next generation. The Board defines a LEAP practitioner as a patent agent or attorney having three (3) or fewer substantive oral arguments in any federal tribunal, including PTAB. Whether an argument is "substantive" for purposes of determining whether an advocate qualifies as a LEAP

practitioner will be made on a case-by-case basis with considerations to include, for example, the amount of time that the practitioner argued, the circumstances of the argument, and whether the argument concerned the merits or ancillary issues.

Appellants are encouraged to participate in the Board's LEAP program. Appellant may request that a LEAP practitioner participate in the program and conduct at least a portion of the oral argument. In exchange, the Board will grant up to fifteen (15) minutes of additional argument time, depending on the length of the proceeding and the PTAB's hearing schedule. Appellant should submit a request and LEAP verification form no later than at least five (5) business days before the hearing, by email to the Board at PTABHearings@uspto.gov. A combined LEAP Practitioner Request for Oral Hearing Participation and Verification Form is available on the LEAP website, www.uspto.gov/leap.

A LEAP practitioner may conduct the entire oral argument or may share time with other counsel, provided that the LEAP practitioner is offered a meaningful and substantive opportunity to argue before the Board. Appellant has the discretion as to the type and quantity of oral argument that will be conducted by the LEAP practitioner. Moreover, whether the LEAP practitioner conducts the argument in whole or in part, the Board will permit more experienced counsel to provide some assistance to the LEAP practitioner, if necessary, during oral argument, and to clarify any statements on the record before the conclusion of the oral argument. Importantly, the Board does not draw any inference about the importance of a particular issue or issues, or the merits of Appellant's arguments regarding that issue, from the Appellant's decision to have (or not to have) a LEAP practitioner argue.

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Submission of Appellant's Demonstratives

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1. By the USPTO Electronic Filing System (EFS), available at http://www.uspto.gov/patents/process/file/efs/

2. By USPS first class mail to the PTAB mailing address:

Patent Trial and Appeal Board
United States Patent and Trademark Office
P.O. BOX 1450
Alexandria, Virginia 22313-1450

In all communications relating to this appeal, please identify the appeal number along with the underlying application number.

Questions

For further information about hearings, see 37 CFR § 41.47 and the Hearings section of the PTAB webpage: http://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/hearings. Also, for questions, please contact the PTAB Hearings Clerk at 571-272-9797.

The United States Patent and Trademark Office
PATENT TRIAL AND APPEAL BOARD

ADD+G-27975 1135 East State Road 434 Suite 3001 Winter Springs, FL 32708	Appeal No: Appellant: Reexamination Control No: Hearing Room; Hearing Docket: Hearing Date: Hearing Time: Location:	2022-003758 Omega Patents, L.L.C. 90/014,675 A Business Methods Thursday, September 29, 2022 1:00 PM ET **Madison Building-East Wing** **600 Dulany Street, 9th Floor** **Alexandria, VA 22313-1450**

APPELLANT RESPONSE TO NOTICE OF HEARING

Appellant responds to the NOTICE OF HEARING in the above-identified appeal.

Hearing Attendance Options (please select one)

( ) I elect an IN-PERSON hearing and will appear at a hearing room in the following USPTO office:

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( ) DALLAS, TX – 207 South Houston Street
( ) SAN JOSE, CA – 26 S. Fourth Street
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_____

_____

For any questions regarding Appellant's response to the NOTICE OF HEARING, Appellant may be reached via the contact information provided below.

Typed or Printed Name of Attorney/Agent/Appellant	Registration No.
E-Mail address	Phone number
Signature of Attorney/Agent/Appellant	Date

cc: Stetina Brunda Garred & Brucker
75Enterprise
Suite 250
Aliso Viejo, CA 92656

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,675	02/16/2021	8032278	CAAMP-001X	7247

27975 7590 06/28/2022

ADD+G - 27975
1135 East State Road 434, Suite 3001
Winter Springs, FL 32708

EXAMINER
WASSUM, LUKE S

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
06/28/2022	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte OMEGA PATENTS, L.L.C.

Appeal 2022-003758
Application 90/014,675
Technology Center 3900

APPEAL DOCKETING NOTICE

The Patent Trial and Appeal Board received the appeal in the above-identified application from the Technology Center on June 28, 2022, and has assigned it the appeal number indicated above.

The recipient of this notice is reminded of its ongoing duty, within 20 days of any change during the proceeding, to update its mandatory notices to identify the real party-in-interest and each judicial or administrative proceeding that could affect, or be affected by, the Board proceeding. 37 C.F.R. § 41.8. For example, another docketed appeal in a related application may have the potential to affect, or be affected by, the Board proceeding.

In all future communications regarding this appeal, please include both the application number and the appeal number. Telephone inquiries can be made by calling 571-272-9797 and referencing the appeal number listed above. The mailing address for the Board is:

PATENT TRIAL and APPEAL BOARD
UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. BOX 1450
ALEXANDRIA, VIRGINIA 22313-1450

cc: Third Party Requester

STETINA BRUNDA GARRED & BRUCKER
75 Enterprise Suite 250
Aliso Viejo, CA 92656

UNITED STATES
PATENT AND TRADEMARK OFFICE

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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
90/014,675	**06/21/2022 03:06:29 PM ET**	**CAAMP-001X**

Title of Invention

VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS

Application Information

APPLICATION TYPE	Utility / ex parte reexam	PATENT #	8032278
CONFIRMATION #	7247	FILED BY	Sheryl Scheibe
PATENT CENTER #	60730710	FILING DATE	02/16/2021
CUSTOMER #	27975	FIRST NAMED INVENTOR	- 8032278
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Jack Abid

Documents

TOTAL DOCUMENTS: 2

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
SLS 58106CIP1-REX5 REPLY.pdf	14	Reply Brief Filed	198 KB
SLS 58106CIP1-REX5 REQUEST.pdf	3	Oral Hearing Request-Owner	206 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
SLS 58106CIP1-REX5 REPLY.pdf	8207D1E43FFF47DD2B21F287563516C1133341D4F2647BD5F3 9E892714B002EA4B53436DAE14C617F587DD6A0E1132F109F BC74D68308916AA5910B5C52811D9

SLS 58106CIP1-REX5 REQUEST.pdf	5F37A4DC269D462CCB6942C8F8EA7B52249850E9F5BC46728FA3DAA59A3B1F5CFB5EA51F2D95D87800CFB8DFDB94EF5B2D40E81F2D1F59098F1FB5258A488990

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

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If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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ELECTRONIC PAYMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
90/014,675	06/21/2022 03:06:29 PM ET	CAAMP-001X

Title of Invention

VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS

Application Information

APPLICATION TYPE	Utility / ex parte reexam	PATENT #	8032278
CONFIRMATION #	7247	FILED BY	Sheryl Scheibe
PATENT CENTER #	60730710	AUTHORIZED BY	Jack Abid
CUSTOMER #	27975	FILING DATE	02/16/2021
CORRESPONDENCE ADDRESS	-	FIRST NAMED INVENTOR	- 8032278

Payment Information

PAYMENT METHOD	PAYMENT TRANSACTION ID	PAYMENT AUTHORIZED BY
CARD / 2004	E20226KF07030571	Sheryl Scheibe
PRE-AUTHORIZED ACCOUNT	**PRE-AUTHORIZED CATEGORY**	
010484	37 CFR 1.21 (Miscellaneous fees and charges)	

FEE CODE	DESCRIPTION	ITEM PRICE($)	QUANTITY	ITEM TOTAL($)
2403	REQUEST FOR ORAL HEARING	680.00	1	680.00
2413	FORWARDING AN APPEAL IN AN APPLICATION OR EX PARTE REEXAMINATION PROCEEDING TO THE BOARD	1180.00	1	1180.00
			TOTAL AMOUNT:	**$1,860.00**

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: **KENNETH E. FLICK** Request for Reexamination of **8,032,278** Control No. **90/014,675** Confirmation No. **7247** Filing Date: **2/16/2021** For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	Attorney Docket No.: **(58106CIP1_REX5)** Examiner: **L. WASSUM** Art Unit: **3992**

REQUEST FOR ORAL HEARING

EFILE
Commissioner for Patents

Commissioner:

Appellant hereby requests an Oral Hearing for the appeal of the above noted ex *parte* reexamination. Appellant submits herewith the required fee under 37 C.F.R. §41.20(b)(3).

If any additional extension and/or fee is required, authorization is given to charge Deposit Account No. 01-0484.

Respectfully submitted,

/JACK ABID/

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407-841-2330

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Attorney for the Patent Owner

In re Patent Application of:
KENNETH E. FLICK
Reexamination Control No. **90/014,675**
Filed: **2/16/2021**
_____/

CERTIFICATE OF SERVICE

Certificate of Service in compliance with 37 C.F.R. §1.530(c)

Pursuant to 37 C.F.R. §§1.530(c), 1.248, I hereby certify that on June 21, 2022, a complete copy of this Request is being served via First Class U.S. Mail upon Third Party Requester at the correspondence address as shown in PAIR:

Mark B. Garred
STETINA BRUNDA GARRED & BRUCKER
75 Enterprise, Suite 250
Aliso Viejo, California 92656

Respectfully submitted,

/JACK GEORGE ABID/

_____
Jack G. Abid

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: **KENNETH E. FLICK** Request for Reexamination of **8,032,278** Control No. **90/014,675** Confirmation No. **7247** Filing Date: **2/16/2021** For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	Attorney Docket No.: **(58106CIP1_REX5)** Examiner: **L. WASSUM** Art Unit: **3992**

REPLY BRIEF AND FILING UNDER 37 C.F.R. §1.565(a)

EFILE
Commissioner for Patents

Dear Commissioner:

Herewith is the Patent Owner's Reply Brief that is submitted in reply to the Examiner's Answer and in furtherance to Patent Owner's Appeal Brief.

If any additional extension and/or fee is required, authorization is given to charge Deposit Account No. 08-0870.

REMARKS

The Examiner is again thanked for the thorough reexamination of the present application, and for the Examiner's Answer mailed April 21, 2022, including the Response to Argument section. The Patent Owner updates the status of the related applications and litigations, and respectfully offers the following arguments for consideration by the Patent Trial and Appeal Board (PTAB).

I. Update for Related Applications and Litigations

Pursuant to 37 C.F.R. §1.565(a), the Patent Owner has continued to inform the USPTO of the status of related and concurrent proceedings, both within the USPTO and judicial proceedings outside the USPTO.

To that end, the CalAmp Litigation between the Patent Owner and Requester's Customer (CalAmp) was settled on June 16, 2022. (*See* Appeal Brief, §(2)(I)).

In the fourth *ex parte* reexamination of the present patent, which was filed by the same Requester as the present fifth *ex parte* reexamination, the request for reexamination was denied, and the Requester filed a petition challenging the determination of no substantial new question of patentability on February 25, 2020. The petition is still awaiting action from the USPTO. The Patent Owner's petition to expedite the prior petition filed July 28, 2020 is also awaiting action.

The Examiner contended that the Patent Owner's only possible remedy for serial harassment would have been via filing a petition upon issuance of the order granting reexamination. (Examiner's Answer, Page 4). Unfortunately, the Patent Owner is

of the position that such petitions are unlikely to be acted upon.

Accordingly, the Patent Owner again respectfully asserts that such sequential/serial requests for *ex parte* reexamination, including the present fifth such request, are a waste of USPTO resources. In addition, the Patent Owner submits that the Requester's Customer continues to abuse USPTO procedures in a fashion that is fundamentally unfair to the Patent Owner, and that this reexamination should be terminated.

II. The Examiner's Interpretation of the Claims Is In Error

The Examiner noted that:

> [a]t col. 4, lines 59-63, Lowrey discloses that "[t]he wireless device ... can be easily installed in nearly every vehicle with an OBD-11 connector in a matter of minutes", and that "[i]t can also be easily transferred from one vehicle to another." This disclosure alone demonstrates that the disclosed wireless device is a "multivehicle compatible controller."
> ...
> Lowrey's wireless device satisfies this definition by virtue of the disclosure that it can be easily transferred from one vehicle to another.
> (Examiner's Answer, Pages 4-5).

Rather, the Patent Owner respectfully submits that this contention is in error. As noted in the Rule 132 Declaration of the Patent Owner's Technical Expert, the person of ordinary skill in the art "would recognize that Lowrey et al. discloses a wireless appliance that is operationally compatible with only one vehicle, namely the given vehicle whose memory

locations correspond to that particular vehicle for which the wireless appliance and associated original schema were designed." (Exhibit 7, Pages 6-7).

Moreover, in agreement with the PTAB's past interpretation of the claimed multi-vehicle compatible controller in the second *ex parte* reexamination of the present patent, the Patent Owner's Technical Expert now states:

> Lowrey et al. fails to disclose the multi-vehicle compatible controller
>
> ...
>
> Lowrey et al. discloses a limited schema feature that is "specific to a given type of vehicle [] typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle (step 22 in FIG. 2)." (Col. 6, lines 62-65)
>
> ...
>
> Lowrey et al. discloses transmitting a new schema while it is installed in a given vehicle being diagnosed rather than "enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller", as recited in independent Claim 1.
> (Exhibit 7, Pages 5-6).

In interpreting the claimed multi-vehicle compatible controller in the second *ex parte* reexamination of the present patent, the PTAB similarly opined that the cited controller (from Chou et al.) was: "compatible with one vehicle, namely the particular vehicle whose fault codes correspond to that particular vehicle

for which the controller was designed." (Exhibit 8, Decision on Appeal, Page 11).

In discussing the claimed enabling data feature, the Examiner contended:

> the term "enabling data" is interpreted as "data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller, and which enables the controller to use a particular vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code." The disclosed data packet containing a new schema (see col. 7, lines 14-43 et seq.) is consistent with the interpretation of the claimed "enabling data" as including "data that otherwise enables the controller to select or generate the [vehicle device] code", since said new schema, which defines which data to collect and its location, enables the wireless appliance to collect that particular data, i.e., to use that particular vehicle device code from among plural such codes for different vehicles corresponding to different schemas.
> (Examiner's Answer, Page 5).

Again, in agreement with the PTAB's past interpretation of the claimed downloading interface, the Patent Owner's Technical Expert now states: "Lowrey et al. discloses transmitting a new schema while it is installed in a given vehicle being diagnosed rather than 'enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller', as recited in independent Claim 1." (Exhibit 7, Page 6). Again, the PTAB

noted that: "this enabling data enables the recited controller to use a particular vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code." (Exhibit 8, Decision on Appeal, Page 12).

Further, the Examiner noted that:

> there would be no point to disclosing the unit's ability to be transferred from one vehicle to another unless the unit had the capability to function in that different vehicle. Such a disclosure would be meaningless without the ability for the unit to actually function for its intended purpose once it has been 'easily transferred' from one vehicle to another. (Examiner's Answer, Page 7).

Again, much like the position taken by the Examiner in the second *ex parte* reexamination of the present patent, the Patent Owner respectfully submits that the Examiner is reading features into Lowrey et al. that are not disclosed therein. Just like the deficient device of Chou et al., the wireless appliance of Lowrey et al. can be transferred between vehicles, but it is not operationally compatible with the new vehicle. Further, this position is supported by the Patent Owner's technical expert, stating: "Lowrey et al. discloses a wireless appliance that is operationally compatible with only one vehicle..." (Exhibit 7, Page 6).

III. Chou et al. and Lowrey et al. Are Similarly Deficient

In reply to the Patent Owner's argument that Lowrey et al. and Chou et al. (second *ex parte* reexamination) were similarly deficient, the Examiner noted that:

> Lowrey discloses that the in-vehicle wireless appliance 13 (i.e., the claimed multi-vehicle compatible controller) interfaces with other vehicle systems via the OBD-II connector, and furthermore that the OBD-II systems of the vehicle exchange data over a shared, standardized electronic buss which effectively functions as an on-board computer network in the vehicle, including many processors each of which transmits and receives data, col. 1, lines 14-22 et seq.
> ...
> Specifically with respect to the Chou reference cited by Appellant, the examiner notes that Chou failed to include any disclosure of the ability to easily transfer the controller from one vehicle to another. Nor did Chou disclose the ability to download vehicle codes for use by the controller.
> (Examiner's Answer, Pages 10 & 12).

Respectfully, the Patent Owner submits that the Examiner has mischaracterized the Chou et al. reference. Rather, just like Lowrey et al., Chou et al. was capable of physically plugging into OBD-II ports, noting the SAE J1850 standard. (Col. 3, lines 33-46). Indeed, as noted by the PTAB, the controller of Chou et al.:

> is compatible with one vehicle, namely the particular vehicle whose fault codes correspond to that particular vehicle for which the controller was designed. Accord App. Br. 32 (noting that Chou's ECU s use

> their own respective trouble codes that are different for different vehicles). Although Chou's remote service center can work with different vehicle device codes using a server 201 and repository 203 in Figure 1 as Appellant acknowledges (App. Br. 37), Chou does not teach or suggest providing such a capability in a vehicle.
> (Exhibit 8, Decision on Appeal, Pages 11-12: Emphasis Added).

Similarly to the staffed remote service center of Chou et al., Lowrey et al. relies on:

> a technician working at a vehicle-service center logs into the web site and analyzes the data set corresponding to a particular vehicle to diagnose a potential mechanical or electrical problem (step 30). ...
>
> Based on the analysis, the technician may decide that additional data are required, or that data need to be collected and transmitted at a higher or lower frequency. In this case **the technician uses the web site to select a new schema** (step 32) and then sends an incoming data packet that includes **a new schema over the wireless network to the wireless appliance included in the vehicle being diagnosed** (step 34).
> ...
>
> **The host vehicle receives the packet** [in which the wireless appliance is already installed] and processes it to extract the new data-collection schema (step 36). The wireless appliance uses the **updated schema to extract a revised set of data from the vehicle's engine computer, or send out data at a revised frequency** (step 38).
> (Col. 7, lines 14-37: Emphasis Added).

In short, both the devices of Chou et al. and Lowrey et al. can potentially be installed in different vehicles, but require support from external support centers. The Patent Owner submits that the Lowrey et al. is similarly deficient to Chou et al. and that the rejection based upon Lowrey et al. should be withdrawn.

IV. The Examiner Has Not Given the Evidence of Secondary Considerations of Non-obviousness Proper Weight

The Examiner has contended that:

> Appellant has submitted evidence of secondary considerations to support their argument that the multi-vehicle compatibility of the claimed controller would not have been obvious to a POSITA. Since this feature is taught by Lowrey alone (i.e., the feature existed in the prior art), there is no nexus between the merits of the claimed invention and the evidence of secondary considerations. (Examiner's Answer, Page 13: Emphasis Added).

The Patent Owner respectfully submits that the Examiner has mischaracterized the nexus requirement for the evidence of secondary considerations of non-obviousness. The term "multi-vehicle compatibility" cannot be treated in isolation. Rather, the proper standard for nexus is that:

> [e]vidence of commercial success is only relevant to the obviousness inquiry "if there is a nexus between the claimed invention and the commercial success." *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1312 (Fed. Cir. 2006). There is no nexus unless the evidence presented is "reasonably commensurate with the scope of the claims."

> *In re Affinity Labs of Tex., LLC*, 856 F.3d 883, 901 (Fed. Cir. 2017) *citing Rambus Inc. v. Rea*, 731 F.3d 1248, 1257 (Fed. Cir. 2013) (Emphasis Added).

The Patent Owner submits that the presented evidence of secondary considerations of non-obviousness is reasonably commensurate to the scope of the claims. This statement is no bare conclusory statement, but rather is a position that has been supported by the district court and the PTAB.

As noted by the Federal Circuit,

> [w]e further reject Kohler's categorical claim that objective evidence must be tied exclusively to claim elements that are not disclosed in a particular prior art reference in order for that evidence to carry substantial weight. Requiring patentees to prove that *objective* evidence is tied to a specific claim element—and only that claim element—runs counter to the statutory instruction that the obviousness analysis involves determining whether "the claimed invention as a whole would have been obvious."
> *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1331-32 (Fed. Cir. 2016) *citing* 35 U.S.C. § 103; and *Rambus Inc. v. Rea*, 731 F.3d 1248, 1257 (Fed. Cir. 2013).

The Examiner's proposed standard is improper. The Patent Owner submits that the substantial evidence of secondary considerations supports non-obviousness.

V. The Examiner's Position on the CalAmp Litigation

The Examiner has properly relied on the claim interpretation from the district court in the CalAmp Litigation throughout the Examiner' Answer. For example, the Examiner stated:

> [t]he examiner notes that the term 'multi-vehicle compatible controller' is interpreted as "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle", consistent with the district court's construction of the term in the related litigation.
> (Examiner's Answer, Pages 4-5; *see e.g.*, Pages 6, 9-10).

Yet, the Examiner dismisses the substantial evidence of secondary considerations of non-obviousness from the CalAmp Litigation, noting such evidence: "is accorded little weight." (Examiner's Answer, Pages 16, 19, 21). Further, the Examiner went on to note that: "[t]he jury/court made their determination based upon evidence, including depositions and witness testimony, but that evidence, depositions, and witness testimony is not of record in the instant reexamination proceeding such that the Office can make its own independent analysis and determination." (Examiner's Answer, Pages 16, 19, 21).

In the second *ex parte* reexamination of the present patent, the Patent Owner made the substantial portion of the record of the trial part of the record, including the trial transcript, lists of defendant and plaintiff trial exhibits, and the jury instructions. Given the Examiner has reviewed the second *ex parte* reexamination to determine whether an SNQ was

present to grant the current fifth *ex parte* reexamination, the Examiner has had the opportunity to review the record of the CalAmp Litigation, and should consider the substantial evidence of secondary considerations of non-obviousness from the very same CalAmp Litigation. If helpful, the Patent Owner is willing to again provide the record of the trial in the present fifth *ex parte* reexamination.

The Patent Owner respectfully submits that the Examiner is improperly dismissing the evidence of secondary considerations of non-obviousness. This same evidence was treated favorably by the PTAB in the second *ex parte* reexamination of the present patent, noting: "we add that Appellant's evidence of secondary considerations of non-obviousness, including licensing, commercial success, copying by others, customer need, and the limited value for accused products without the invention, only further weighs in favor of Appellant." (Exhibit 8, Decision on Appeal, page 14)." In view of the evidence of secondary considerations, the Patent Owner submits that the obviousness type rejection of the pending claims is rebutted.

In view of the arguments presented above, it is submitted that all of the claims are patentable. Accordingly, the PTAB should reverse the rejections, and a Reexamination Certificate confirming all claims as patentable is respectfully requested in due course. Should any minor informalities need to be addressed, the Examiner is encouraged to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized to charge or credit any discrepancies in fee amounts to Deposit Account No. 01-0484.

Respectfully submitted,

/JACK ABID/

JACK GEORGE ABID
Reg. No. 58,237
Allen, Dyer, Doppelt, Milbrath & Gilchrist, P.A.
255 S. Orange Avenue, Suite 1401
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Orlando, Florida 32802
407-841-2330
407-841-2343 fax
Attorney for the Patent Owner

CERTIFICATE OF SERVICE

Certificate of Service in compliance with 37 C.F.R. §1.530(c)

Pursuant to 37 C.F.R. §§1.530(c), 1.248, I hereby certify that on June 21, 2022, a complete copy of this Request is being served via First Class U.S. Mail upon Third Party Requester at the correspondence address as shown in PAIR:

Mark B. Garred
STETINA BRUNDA GARRED & BRUCKER
75 Enterprise, Suite 250
Aliso Viejo, California 92656

Respectfully submitted,

/JACK GEORGE ABID/

_____
Jack G. Abid

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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Alexandria, Virginia 22313-1450
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,675	02/16/2021	8032278	CAAMP-001X	7247

27975 7590 04/21/2022

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1135 East State Road 434, Suite 3001
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EXAMINER
WASSUM, LUKE S

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
04/21/2022	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
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(THIRD PARTY REQUESTER'S CORRESPONDENCE ADDRESS)

STETINA BRUNDA GARRED & BRUCKER
75 ENTERPRISE, SUITE 250
ALISO VIEJO, CA 92656

EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. *90/014,675* .

PATENT UNDER REEXAMINATION *8032278* .

ART UNIT *3992* .

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Application Number: 90/014,675
Filing Date: 16 Feb 2021
Appellant(s): OMEGA PATENTS, L.L.C.

_____
Jack George Abid
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 1 April 2022.

(1) Grounds of Rejection to be Reviewed on Appeal

Every ground of rejection set forth in the Office action dated 5 October 2021 from which the appeal is taken is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(2) Response to Argument

At sections 2-5 of the Appeal Brief ("**Brief**"), pages 6-20, Appellant presents various arguments with respect to past "duplicative" reexamination filings which constitute "serial harassment".

In response, the examiner notes that such issues are addressed through the requirement that any subsequent request for reexamination raise a substantial *new* question of patentability ("SNQ") that is different than those raised in any previous reexamination request. In this case, such an SNQ was raised by the request, by virtue of (at least) the presentation of new, relevant, and non-cumulative prior art that was not previously before the Office with respect to the '278 patent.

Arguments to the contrary are properly addressed through the filing of a petition under 35 U.S.C. § 1.182 as part of the Patent Owner's statement. However, no such statement or petition has been filed in the instant proceeding. See MPEP § 2240.II.

At section 6.I.A (**Brief**, pages 20-24), Appellant argues that the prior art of record fails to disclose or suggest the claimed invention.

Specifically, Appellant argues that in view of the "extremely limited" teachings of the schema, **Lowrey** fails to disclose the claimed downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

The examiner respectfully disagrees.

At col. 4, lines 59-63, **Lowrey** discloses that "[t]he wireless device…can be easily installed in nearly every vehicle with an OBD-II connector in a matter of minutes", and that "[i]t can also be easily transferred from one vehicle to another."

This disclosure alone demonstrates that the disclosed wireless device is a "multi-vehicle compatible controller." The examiner notes that the term 'multi-vehicle compatible controller' is interpreted as "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle", consistent with the

district court's construction of the term in the related litigation[1]. **Lowrey's** wireless device satisfies this definition by virtue of the disclosure that it can be easily transferred from one vehicle to another.

With respect to Appellant's argument that **Lowrey** fails to disclose the claimed 'downloading of enabling data', the examiner notes that the term 'enabling data' is interpreted as "data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller, and which enables the controller to use a *particular* vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code." The disclosed data packet containing a new schema (see col. 7, lines 14-43 et seq.) is consistent with the interpretation of the claimed 'enabling data' as including 'data that otherwise enables the controller to select or generate the [vehicle device] code', since said new schema, which defines which data to collect and its location, enables the wireless appliance to collect that particular data, i.e., to use that particular vehicle device code from among plural such codes for different vehicles corresponding to different schemas.

[1] *Omega Patents, LLC v. CalAmp Corp.*, No. 6:13-cv-1950-Orl-40DAB (M.D. Fla.), Claim Construction Order, 20 February 2015.

Appellant argues that the schema downloaded to **Lowrey's** wireless appliance does not qualify as the claimed 'enabling data' because the schema only includes commands for a single vehicle. However, the district court's construction[2] of the claimed 'enabling data' requires only data relating to *a particular* vehicle device code. **Lowrey's** downloaded schema includes such data corresponding to a particular device code corresponding to the vehicle in which the device is currently connected.

Based particularly on the arguments presented on pages 24-25 of the **Brief**, Appellant's position is that the claim limitation "downloading enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller" requires that the downloaded data includes data related to multiple vehicle device codes for use on multiple vehicles. The examiner respectfully disagrees.

The examiner initially notes that the claim language included in independent claims 1, 13, and 18, requires that the enabling data be related to the at least one vehicle device code for use by said multi-vehicle device controller. That being the case, the scope of the claim language includes the case where data related to a single vehicle

[2] *Id.*

device code is downloaded. This alone gives evidence to the fact that the claims do not require the enabling data to include data related to multiple vehicle device codes for use on multiple vehicles.

Furthermore, as noted above, the Courts have interpreted 'enabling data' as "data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller, and which enables the controller to use a particular vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code." It was known in the art that there were numerous different vehicle device codes for use in different vehicles (thus **Lowrey's** disclosure of a schema that is specific to the type of vehicle[3]). Indeed, *any* vehicle device code was therefore 'one from among a plurality of vehicle device codes for different vehicles'. The claimed 'enabling data', however, does not require the downloading of multiple vehicle device codes that can be used on multiple vehicles. What is required is the downloading of data related to at least one vehicle device code from among a plurality of vehicle device codes for different vehicles.

[3] **Lowrey**, col. 6, lines 62-65.

At section 6.I.B (**Brief**, pages 25-28), Appellant essentially argues that the prior art of record fails to disclose the claimed multi-vehicle compatible controller, because **Lowrey's** disclosure only supports physically and electrically installing the unit in different vehicles, not that the controller would actually work in said different vehicles once installed.

The examiner respectfully disagrees.

As noted above, **Lowrey** discloses a wireless appliance that can be easily installed in nearly every vehicle with an OBD-II connector in a matter of minutes, and can easily be transferred from one vehicle to another. Appellant's position seems to be that this disclosure supports physically installing the unit in a different vehicle, but that once installed in said different vehicle, it could not work.

However, there would be no point to disclosing the unit's ability to be transferred from one vehicle to another unless the unit had the capability to function in that different vehicle. Such a disclosure would be meaningless without the ability for the unit to actually function for its intended purpose once it has been 'easily transferred' from one vehicle to another. This ability is disclosed by virtue of the ability to download a new schema to the unit once installed in the different vehicle.

It is also noted that the multi-vehicle compatible controller is interpreted, consistent with previous District Court litigation[4], as "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle." In particular, the District Court has determined that the claimed controller is 'electronic circuitry', which **Lowrey's** wireless appliance clearly includes. **Lowrey's** wireless appliance performs one or more control functions, and as explicitly disclosed at col. 4, lines 59-63, the wireless appliance can operate with more than one vehicle ("[The wireless appliance] can be easily transferred from one vehicle to another…").

Since **Lowrey's** wireless appliance (i.e., 'electronic circuitry') can be 'easily transferred' from one vehicle to another, and is subsequently capable of performing one or more control functions (after downloading a new schema), it is clearly capable of operating with more than one vehicle. Appellant apparently argues that the controller must include embedded vehicle device codes for multiple vehicles. However, the District Court's interpretation explicitly limits the interpretation of the claimed 'controller' to the hardware itself ("electronic circuitry"), and does not include the stored vehicle codes. Even were the claimed controller to be interpreted as including vehicle device codes, **Lowrey's** wireless device includes such vehicle device codes, and

[4] *Omega Patents, LLC v. CalAmp Corp.*, No. 6:13-cv-1950-Orl-40DAB (M.D. Fla.), Claim Construction Order, 20 February 2015.

as noted above, it was well-known in the art at the time of the invention that there were numerous different vehicle device codes for use in different vehicles, so *any* given vehicle device code would be 'one from among a plurality of vehicle device codes for different vehicles'.

Thus, **Lowrey's** wireless appliance reads on the features of the claimed multi-vehicle compatible controller, as interpreted by the District Court.

At section 6.C (**Brief**, pages 28-32), Appellant argues that the prior art of record is similar to that applied during previous reexaminations, and similarly fails to disclose the claimed invention.

The examiner respectfully disagrees.

At col. 2, lines 2-3, **Lowrey** discloses that the in-vehicle wireless appliance **13** (i.e., the claimed multi-vehicle compatible controller) interfaces with other vehicle systems via the OBD-II connector, and furthermore that the OBD-II systems of the vehicle exchange data over a shared, standardized electronic buss which effectively functions as an on-board computer network in the vehicle, including many processors each of which transmits and receives data, col. 1, lines 14-22 et seq. These disclosures alone

disclose the claimed "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device."

With respect to the claimed 'corresponding vehicle device code', **Lowrey** additionally discloses a data-collection schema which is essentially a map that describes the data that the wireless appliance collects from the vehicle's engine computer and its corresponding location in the computer's memory (col. 6, lines 54-62 et seq.), and that some of the data retrieved comprises diagnostic trouble codes [DTCs] that indicate a specific problem with the vehicle (col. 1, lines 31-36 and col. 1, line 63 through col. 2, line 14 et seq.).

The examiner notes that consistent with the claim construction[5] previously applied by the Courts, the claimed "vehicle device code" is interpreted as "a signal to or from a vehicle device." The diagnostic data collected from the engine computer (i.e., signals from a vehicle device), as well as the queries defined by the data-collection schema that specify which diagnostic data is to be retrieved from the engine computer (i.e., signals to a vehicle device), are both consistent with the interpretation of the claimed 'vehicle device codes' as 'a signal to or from a vehicle device'.

With respect to the claimed limitation that the vehicle device codes are "from among a plurality for different vehicles", **Lowrey** discloses that the schema, which

[5] *Id.*

defines the data to be collected from the vehicle's engine computer, is *specific to a given type of vehicle* and is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle, col. 6, lines 62-65 et seq. As noted above, *any* vehicle device code is necessarily a vehicle device code from among a plurality thereof for different vehicles.

Specifically with respect to the Chou[6] reference cited by Appellant, the examiner notes that Chou failed to include any disclosure of the ability to easily transfer the controller from one vehicle to another. Nor did Chou disclose the ability to download vehicle codes for use by the controller. **Lowrey**, however, explicitly discloses both of these features, features that demonstrate that **Lowrey's** wireless device can operate in different vehicles (i.e., multi-vehicle compatible). Thus, Appellant's argument that the teachings of **Lowrey** are similarly deficient to those of Chou is misplaced.

Secondary Considerations

At section 6.II (**Brief**, pages 32-49), Appellant argues, supported by a § 1.132 Declaration by Joseph C. McAlexander, III, originally filed 23 August 2021, a copy of which was submitted with the Brief ("**McAlexander Declaration**"), that secondary considerations support their allegation of the non-obviousness of the claimed invention,

[6] U.S. Patent 6,330,499.

specifically with respect to the claimed feature of multi-vehicle compatibility. Appellant in fact characterizes the rejections as "combining a vehicle tracker prior art reference with a secondary reference in an attempt to provide the multi-vehicle compatibility." (**Brief**, page 29.)

The examiner notes, however, that **Lowrey** alone explicitly teaches a vehicle tracking unit with multi-vehicle compatibility.

Specifically, **Lowrey** discloses that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can be easily transferred from one vehicle to another (thus constituting the claimed multi-vehicle compatibility) at col. 4, lines 59-63. **Lightner**, meanwhile, is relied upon only to provide additional details regarding the vehicle-specific nature of the diagnostic vehicle data (i.e., vehicle device codes).

Appellant has submitted evidence of secondary considerations to support their argument that the multi-vehicle compatibility of the claimed controller would not have been obvious to a POSITA. Since this feature is taught by **Lowrey** alone (i.e., the feature existed in the prior art), there is no nexus between the merits of the claimed invention and the evidence of secondary considerations (as discussed in further detail below.)

As noted above, **Lightner** is relied upon only for additional details with respect to the vehicle-specific nature of diagnostic vehicle data. Since the submitted evidence of

secondary considerations is silent with respect to the non-obviousness of the vehicle-specific nature of diagnostic vehicle data, it has nothing to offer with respect to an obviousness analysis of the prior art applied in the rejections of record.

Licensing

At section 6.II.C (**Brief**, pages 37-39), Appellant argues, supported by the **McAlexander Declaration** (items 24.a-c and e), that secondary considerations with respect to licensing support their allegation of the non-obviousness of the claimed invention.

The examiner notes that to be given substantial weight in the determination of obviousness or nonobviousness, evidence of secondary considerations must be relevant to the subject matter as claimed, and therefore the examiner must determine whether there is a nexus between the merits of the claimed invention and the evidence of secondary considerations. *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 305 n.42, 227 USPQ 657, 673-674 n. 42 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986). The term "nexus" designates a factually and legally sufficient connection between the objective evidence of nonobviousness and the claimed invention so that the evidence is of probative value in the determination of nonobviousness. *Demaco Corp. v.*

F. Von Langsdorff Licensing Ltd., 851 F.2d 1387, 7 USPQ2d 1222 (Fed. Cir.), cert. denied, 488 U.S. 956 (1988).

In this case, upon consideration of Appellant arguments and the statements set forth in the **McAlexander Declaration**, it has been determined that there is no nexus between the merits of the claimed invention and the submitted evidence.

Specifically, Appellant argues that the claimed multi-vehicle compatibility was important for the overall licensing program. However, the examiner notes that "Where the offered secondary consideration actually results from something other than what is both claimed and novel in the claim, there is no nexus to the merits of the claimed invention." *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011); see also *Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1369 (Fed. Cir. 2011) ("If commercial success is due to an element in the prior art, no nexus exists."); *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1312 (2006) ("[I]f the feature that creates the commercial success was known in the prior art, the success is not pertinent."). In evaluating whether the requisite nexus exists, the identified objective indicia must be directed to what was not known in the prior art, including patents and publications, which may well be the novel combination or arrangement of known individual elements. See *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418–19 (2007); *Veritas Techs. LLC v. Veeam Software Corp.*, 835 F.3d 1406, 1414-15 (Fed. Cir. 2016).

In this case, as noted above, **Lowrey** alone discloses that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can be easily transferred from one vehicle to another (thus constituting the claimed multi-vehicle compatibility) at col. 4, lines 59-63.

It is further noted that the fact that a jury and/or court considered 'secondary considerations' relevant to a finding of non-obviousness during previous litigation involving the '278 patent and two other patents is accorded little weight. The jury/court made their determination based upon evidence, including depositions and witness testimony, but that evidence, depositions, and witness testimony is not of record in the instant reexamination proceeding such that the Office can make its own independent analysis and determination.

Commercial Success

At section 6.II.D (**Brief**, pages 39-42), Appellant argues, supported by the **McAlexander Declaration** (items 24.c-f), that secondary considerations with respect to commercial success support their allegation of the non-obviousness of the claimed invention.

The examiner notes that objective evidence of nonobviousness including commercial success must be commensurate in scope with the claims. *In re Tiffin*, 448

F.2d 791, 171 USPQ 294 (CCPA 1971) (evidence showing commercial success of thermoplastic foam "cups" used in vending machines was not commensurate in scope with claims directed to thermoplastic foam "containers" broadly). In order to be commensurate in scope with the claims, the commercial success must be due to claimed features, and not due to unclaimed features. *Joy Technologies Inc. v. Manbeck,* 751 F. Supp. 225, 229, 17 USPQ2d 1257, 1260 (D.D.C. 1990), aff'd, 959 F.2d 226, 228, 22 USPQ2d 1153, 1156 (Fed. Cir. 1992) (Features responsible for commercial success were recited only in allowed dependent claims, and therefore the evidence of commercial success was not commensurate in scope with the broad claims at issue.).

An affidavit or declaration attributing commercial success to a product or process "constructed according to the disclosure and claims of [the] patent application" or other equivalent language does not establish a nexus between the claimed invention and the commercial success because there is no evidence that the product or process which has been sold corresponds to the claimed invention, or that whatever commercial success may have occurred is attributable to the product or process defined by the claims. *Ex parte Standish*, 10 USPQ2d 1454, 1458 (Bd. Pat. App. & Inter. 1988).

In this case, the **McAlexander Declaration** states that "CalAmp telemetry devices "have enjoyed significant commercial success". Although the commercial success is directed to "the accused products", the examiner notes that a nexus has not

been established. That is, the subjected statements and evidence does not establish a nexus between the claimed invention and the commercial success because there is no evidence that the product which has been sold corresponds to the claimed invention, or that whatever commercial success may have occurred is attributable to the product defined by the claims.

Appellant again argues that the claimed multi-vehicle compatibility was important for the overall licensing program. However, the examiner notes that "Where the offered secondary consideration actually results from something other than what is both claimed and novel in the claim, there is no nexus to the merits of the claimed invention." *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011); see also *Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1369 (Fed. Cir. 2011) ("If commercial success is due to an element in the prior art, no nexus exists."); *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1312 (2006) ("[I]f the feature that creates the commercial success was known in the prior art, the success is not pertinent."). In evaluating whether the requisite nexus exists, the identified objective indicia must be directed to what was not known in the prior art, including patents and publications, which may well be the novel combination or arrangement of known individual elements. See *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418–19 (2007); *Veritas Techs. LLC v. Veeam Software Corp.*, 835 F.3d 1406, 1414-15 (Fed. Cir. 2016).

In this case, as noted above, **Lowrey** alone discloses that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can be easily transferred from one vehicle to another (thus constituting the claimed multi-vehicle compatibility) at col. 4, lines 59-63.

It is further noted that the fact that a jury and/or court considered 'secondary considerations' relevant to a finding of non-obviousness during previous litigation involving the '278 patent and two other patents is accorded little weight. The jury/court made their determination based upon evidence, including depositions and witness testimony, but that evidence, depositions, and witness testimony is not of record in the instant reexamination proceeding such that the Office can make its own independent analysis and determination.

Copying by Others

At section 6.II.E (**Brief**, pages 42-43), Appellant argues, supported by the **McAlexander Declaration** (item 24.g), that secondary considerations with respect to copying by others support their allegation of the non-obviousness of the claimed invention.

The examiner notes that more than the mere fact of copying is necessary to make that action significant because copying may be attributable to other factors such as a

lack of concern for patent property or contempt for the patentee's ability to enforce the patent. *Cable Electric Products, Inc. v. Genmark, Inc.*, 770 F.2d 1015, 226 USPQ 881 (Fed. Cir. 1985). Evidence of copying was persuasive of nonobviousness when an alleged infringer tried for a substantial length of time to design a product or process similar to the claimed invention, but failed and then copied the claimed invention instead. *Dow Chem. Co. v. American Cyanamid Co.*, 816 F.2d 617, 2 USPQ2d 1350 (Fed. Cir. 1987). Alleged copying is not persuasive of nonobviousness when the copy is not identical to the claimed product, and the other manufacturer had not expended great effort to develop its own solution. *Pentec, Inc. v. Graphic Controls Corp.*, 776 F.2d 309, 227 USPQ 766 (Fed. Cir. 1985). See also *Vandenberg v. Dairy Equipment Co.*, 740 F.2d 1560, 1568, 224 USPQ 195, 199 (Fed. Cir. 1984) (evidence of copying not found persuasive of nonobviousness) and *Panduit Corp. v. Dennison Manufacturing Co.*, 774 F.2d 1082, 1098-99, 227 USPQ 337, 348, 349 (Fed. Cir. 1985), vacated on other grounds, 475 U.S. 809, 229 USPQ 478 (1986), on remand, 810 F.2d 1561, 1 USPQ2d 1593 (Fed. Cir. 1987) (evidence of copying found persuasive of nonobviousness where admitted infringer failed to satisfactorily produce a solution after 10 years of effort and expense).

The examiner further notes that the statements by Appellant and **McAlexander Declaration** do not provide sufficient evidence with respect to which products copied the claimed invention as well as providing evidence that the copied invention relates to

the instant patent. The declaration states that during previous litigation involving the '278 patent and two other patents, that the 'claimed invention' was copied, without providing evidence specific to the claimed invention of the '278 patent and a specific infringing product that corresponds to said claimed invention of the '278 patent. These statements are insufficient to show whether the claimed invention was copied.

It is again noted that the fact that a jury and/or court considered 'secondary considerations' relevant to a finding of non-obviousness during previous litigation involving the '278 patent and two other patents is accorded little weight. The jury/court made their determination based upon evidence, including depositions and witness testimony, but that evidence, depositions, and witness testimony is not of record in the instant reexamination proceeding such that the Office can make its own independent analysis and determination.

Customer Need

At section 6.II.F (**Brief**, pages 43-46), Appellant argues, supported by the **McAlexander Declaration** (items 24.h-i), that secondary considerations with respect to customer need support their allegation of the non-obviousness of the claimed invention. It is noted that the Declaration makes reference to depositions that are not of record in the instant reexamination proceeding.

The **McAlexander Declaration** states that the accused products in the CalAmp litigation were developed because of "customer need."

The examiner notes that establishing long-felt need requires objective evidence that an art recognized problem existed in the art for a long period of time without solution. The relevance of long-felt need and the failure of others to the issue of obviousness depends on several factors. First, the need must have been a persistent one that was recognized by those of ordinary skill in the art. *In re Gershon*, 372 F.2d 535, 539, 152 USPQ 602, 605 (CCPA 1967) ("Since the alleged problem in this case was first recognized by appellants, and others apparently have not yet become aware of its existence, it goes without saying that there could not possibly be any evidence of either a long felt need in the . . . art for a solution to a problem of dubious existence or failure of others skilled in the art who unsuccessfully attempted to solve a problem of which they were not aware."); *Orthopedic Equipment Co., Inc. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 217 USPQ 1281 (Fed. Cir. 1983) (Although the claimed invention achieved the desirable result of reducing inventories, there was no evidence of any prior unsuccessful attempts to do so.).

Second, the long-felt need must not have been satisfied by another before the invention by applicant. *Newell Companies v. Kenney Mfg. Co.*, 864 F.2d 757, 768, 9 USPQ2d 1417, 1426 (Fed. Cir. 1988) (Although at one time there was a long-felt need for a "do-it-yourself" window shade material which was adjustable without the use of tools, a prior art product fulfilled the need by using a scored plastic material which could be torn. "[O]nce another supplied the key element, there was no long-felt need or, indeed, a problem to be solved".)

In this case, Appellant argues that the long-felt need involved a product having a simple installation that did not require the splicing of wires. However, **Lowrey** alone provided just such a product, years prior to the 2007 priority date of the '278 patent, by virtue of the product's interface to the vehicle via the OBD-II connector.

Limited Value

At section 6.II.G (**Brief**, pages 47-49), Appellant argues, supported by the **McAlexander Declaration** (item 24.j), that secondary considerations with respect to limited value support their allegation of the non-obviousness of the claimed invention.

The **McAlexander Declaration** states that the Accused Products would have "limited value" if it were not for multi-vehicle compatibility.

The examiner notes that the statements by Appellant and **McAlexander Declaration** do not provide sufficient evidence that the "accused products" would have limited value without the claimed multi-vehicle compatibility. The declaration merely provided a statement without showing evidence as to whether the products would have limited value with respect to claimed limitations.

It is again noted by the examiner that **Lowrey** alone explicitly teaches a vehicle tracking unit with multi-vehicle compatibility.

Specifically, **Lowrey** discloses that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can be easily transferred from one vehicle to another (thus constituting the claimed multi-vehicle compatibility) at col. 4, lines 59-63.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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Requirement to pay appeal forwarding fee. In order to avoid dismissal of the instant appeal in any application or ex parte reexamination proceeding, 37 CFR 41.45 requires payment of an appeal forwarding fee within the time permitted by 37 CFR 41.45(a), unless appellant had timely paid the fee for filing a brief required by 37 CFR 41.20(b) in effect on March 18, 2013.

/lsw/
8 April 2022

Reexamination	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90/014,675	8032278
	Certificate Date	Certificate Number

Requester Correspondence Address: ☐ Patent Owner ☑ Third Party
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LITIGATION REVIEW ☑	lsw (examiner initials)	18 February 2021 (date)
Case Name		Director Initials
Omega Patents, LLC v. Enfora, Inc, 1:17cv2769 (closed)		
Omega Patents, LLC v. CalAmp Corp., 6:13cv1950 (closed)		

COPENDING OFFICE PROCEEDINGS	
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Ex Parte Reexamination	90/014,419

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To:	WASSUM, Luke	**From:**	GRAVES, Monica A.
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Search Notes

US PATENT NO: 8,032,278 - Litigation Found

1. Performed a KeyCite Search in Westlaw, which retrieves all history on the patent including any litigation.
2. Performed a search on the patent in Lexis CourtLink for any open dockets or closed cases.
3. Performed a search in Lexis in the Federal Courts and Administrative Materials databases for any cases found.
4. Performed a search in Lexis in the IP Journal and Periodicals database for any articles on the patent.
5. Performed a search in Lexis in the news databases for any articles about the patent or any articles about litigation on this patent.

Paper No. 20220419

Citing References (109)

Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**1.** Omega Patents, LLC v. Calamp Corp. 2015 WL 12830497, *1+ , M.D.Fla. , (NO. 613CV1950ORL40DAB) This cause comes before the Court without oral argument on the following: 1. Plaintiff's Motion and Memorandum for Summary Judgment as to Validity, Infringement, Enforceability and... ... the '876 Patent")U.S. Patent No. 6,737,989 ("the '989 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") (collectively, the "patents-in-suit"). (Doc. 1). The patents-in-suit relate to control systems for vehicles with a ...	Dec. 23, 2015	Case		—
Examined by	**2.** Patent Owner's Appeal Brief Ex Parte OMEGA PATENTS, L.L.C. 2019 WL 8888301, *1+ , Bd.Pat.App. & Interf. (Administrative Filing) , (NO. APP90/014,121) ... CONTENTS I. Real Party in Interest 4 II. Related Appeals, Interferences, and Trials 4 A. Related Appeals 4 1. Appeal in Reexamination 90/013,851 for U.S. Patent No. 8,032,278 resulting in favorable PTAB decision and Reexamination Certificate issued February 6, 2019; 4 2. Appeal in Reexamination 90/014,122 for U.S. Patent ...	July 12, 2019	Administrative Filing		—
Examined by	**3.** Patent Owner's Appeal Brief EX PARTE OMEGA PATENTS, LLC et al. 2019 WL 8587347, *1+ , Bd.Pat.App. & Interf. (Administrative Filing) , (NO. APP90/014,122) ... CONTENTS(1) Real Party In Interest 8(2) Related Appeals, Interferences, And Trials 8 I. Related Appeals 8 A. First Related Appeal (Second Reexamination Of U.S. Patent No. 8,032,278 8 B. Second Related Appeal (Second Reexamination Of U.S. Patent No. 6, 756,885 10 II. Related Trials 11 A. First Trial 11 ...	May 15, 2019	Administrative Filing		—
Examined by	**4.** Patent Owner's Supplemental Appeal Brief Ex Parte Omega Patents, L.L.C. 2018 WL 6257407, *1+ , Patent Tr. & App. Bd. (Administrative Filing) , (NO. APPLICATION90/013851) ... Interferences, and Trials At present there are no related appeals, or interferences. There are two related trials.I. First Trial In the first trial, the ' 278 patent was subject to a litigation between the Requester and the Patent Owner. The Patent Owner filed its complaint alleging patent infringement against the Requester ...	Feb. 27, 2018	Administrative Filing		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**5. Patent Owner's Appeal Brief** Ex Parte Omega Patents, L.L.C. 2018 WL 6257406, *1+ , Patent Tr. & App. Bd. (Administrative Filing) , (NO. APPLICATION90/013851) ... Interferences, and Trials At present there are no related appeals, or interferences. There are two related trials.I. First Trial In the first trial, the ' 278 patent was subject to a litigation between the Requester and the Patent Owner. The Patent Owner filed its complaint alleging patent infringement against the Requester ...	Jan. 17, 2018	Administrative Filing		—
Examined by	**6. Appellants' Appeal Brief** Ex Parte Kenneth E. Flick. 2015 WL 13545129, *1+ , Patent Tr. & App. Bd. (Administrative Filing) , (NO. APPLICATION13/826752) ... al.The Examiner rejected independent Claims 1, 21, 39, 50, 70, and 88 over a four-way combination of U.S. Patent No. 8,362,886 to Flick, U.S. Patent No. 8,032,278 to Flick, Reinold et al., and Fein et al., with two of the four references having common inventorship with the present application ...	Sep. 17, 2015	Administrative Filing		—
Examined by	**7. Cross-Appellant/Appellee Omega Patents, LLC's Principal and Response Brief** OMEGA PATENTS, LLC, Plaintiff/Cross-Appellant, v. CALAMP CORP., Defendant/Appellant. 2020 WL 4933794, *1+ , Fed.Cir. (Appellate Brief) , (NO. 2020-1793 , 2020-1794) ... Appx14-22) Omega appeals the order awarding post-verdict royalties. CalAmp's appeal involves two of the asserted patents, U.S. Patent Nos. 6,756,885 ("'885 patent") and 8,032,278 ("'278 patent ")There are no current cases in which either of the two patents are being asserted. The '885 patent expired on August 22, 2016 ...	Aug. 21, 2020	Brief		—
Examined by	**8. Opening Brief of Defendant-Appellant Calamp Corp.** OMEGA PATENTS, LLC, Plaintiff-Cross-Appellant, v. CALAMP CORP., Defendant-Appellant. 2020 WL 4048275, *1+ , Fed.Cir. (Appellate Brief) , (NO. 2020-1793 , 2020-1794) ... that CalAmp's Customers Infringed the '885 Patent Should Be Vacated 32 II. CALAMP IS ENTITLED TO JMOL THAT THE ACCUSED LMUs DO NOT INFRINGE THE ' 278 PATENT OR, AT LEAST, A NEW TRIAL 36 A. Omega's Improper Claim Construction Arguments Tainted the Jury's Consideration of the ' 278 Patent 's "Corresponding Vehicle ...	July 13, 2020	Brief		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**9. Corrected Opening Brief of Defendant-Appellant CalAmp Corp.** OMEGA PATENTS, LLC, Plaintiff-Appellee, v. CALAMP CORP., Defendant-Appellant. 2018 WL 2045178, *1+ , Fed.Cir. (Appellate Brief) , (NO. 18-1309) ... Device." 20 II. THE ACCUSED PRODUCTS DO NOT INFRINGE OMEGA'S PATENTS. 21 A. The Accused Products Do Not Satisfy The "Device Codes" Limitations Of The ' 278 '885, And '876 Patents 22 1. The accused products do not use a vehicle device code as required by the ' 278 patent 22 2. The ...	Apr. 25, 2018	Brief		—
Examined by	**10. Declaration of Eric Andrews in Support of Defendant Calamp Corp.'s Motion for Summary Judgment of Noninfringement** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 12856650, *1+ , M.D.Fla. (Expert Report and Affidavit) , (NO. 613-CV-1950-PGB-DAB) ... asserted patents in this matter, U.S. Patent Nos. 6,346,876 (the '876 patent)6,737,989 (the '989 patent)6,756,885 (the '885 patent)7,671,727 (the '727 patent), and 8,032,278 (the '278 patent) along with the file histories for the asserted patents. I am informed that copies of the asserted patents were attached as Exhibits ...	July 01, 2015	Expert Materials		—
Examined by	**11. Expert Report of Eric Andrews Regarding Invalidity** OMEGA PATENTS, LLC., v. CALAMP CORP. 2015 WL 12856648, *1+ , M.D.Fla. (Expert Report and Affidavit) , (NO. 613-CV-01950-PGB-DAB) ... over '074 Spaur and SAE J1979 78 6.7 Invalidity of '727 over NeoTech Mobile-Trak II and SAE J1979 90 6.8 Invalidity of ' 278 over '392 Bambini and SAE J1978 100 6.9 Invalidity of ' 278 over '074 Spaur 154 1. Introduction I have been advised that there is ...	Apr. 15, 2015	Expert Materials		—
Examined by	**12. Plaintiff's Motion and Memorandum for Judgment of Infringement of Vpod Units under Rule 59** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2019 WL 8331710, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL40DCI) ... material respects to the Infringing LMUs. On September 30, 2019, the jury returned a verdict in favor of Omega finding the LMU products directly infringe U.S. Patent No. 8,032,278 ("the '278 Patent") However, contrary to the undisputed evidence, the jury found the identically-functioning VPODs somehow did not infringe the ' 278 ...	Dec. 23, 2019	Motion		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**13. Calamp Corp.'s Combined Motion for Judgment as a Matter of Law, for a New Trial, and for a Remittitur of Damages** OMEGA PATENTS, LLC, Plaintiff, v. CALAMP CORP., Defendant. 2019 WL 8331711, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 6:13-CV-1950-PGB-DCI) ... CalAmp's accused LMU-3000, LMU-3030, and LMU-3050 products ("the Accused LMUs") do not directly infringe U.S. Patent Nos. 6,756,885 ("the '885 patent") and 8,032,278 ("the '278 patent ")[FN1] The jury's contrary findings of direct infringement for the '885 patent (by CalAmp's customers) and the ' 278 patent (by CalAmp) not ...	Dec. 23, 2019	Motion		—
Examined by	**14. Plaintiff's Motion and Memorandum for an Award of Attorneys Fees** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2019 WL 8331712, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL40DCI) ... the claims of U.S. Patent No. 6,346,876 ("the '876 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") The totality of CalAmp's actions render this case an exceptional case under 35 U.S.C. § 285 and support an ...	Dec. 23, 2019	Motion		—
Examined by	**15. Plaintiff's Reply in Support of Its Motion for Summary Judgment as to Validity, Infringement, Enforceability, and Unfair Competition** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 10478030, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL40DAB) ... signals" and "device code." (Doc. 76, p. 7.) In response to Omega's motion for validity, Calamp first argues (contrary to its own expert) that the ' 278 patent is anticipated. Calamp then argues (without evidence) that one of skill in the art would combine the disparate references[FN2] using the patent claims ...	Aug. 03, 2015	Motion		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**16. Plaintiff's Motion and Memorandum for Summary Judgment As to Validity, Infringement, Enforceability and Unfair Competition** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 7687819, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL31DAB) ... of infringement of five patents: U.S. Patent Nos. 6,346,876 ("the '876 patent")6,737,989 ("the '989 Patent")6,756,885 ("the '885 patent")7,671,727 ("the '727 Patent"); and 8,032,278 ("the '278 patent ") (collectively referred to herein as the "patents-in-suit" and attached as Exhibits 1-5 in the Appendix). [FN1] In this motion ...	July 01, 2015	Motion		—
Examined by	**17. Defendant CalAmp Corp.'s Opening Claim Construction Brief** OMEGA PATENTS, LLC, a Georgia Limited Liability Company, Plaintiff, v. CALAMP CORP., a Delaware Corporation, Defendant. 2014 WL 7691270, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV01950PGBDAB) ... in this case: U.S. Pat. Nos. 6,346,876 ("the #876 patent"); 6,737,989 ("the #989 patent"); 6,756,885 ("the #885 patent"); 7,671,727 ("the #727 patent"); and 8,032,278 ("The # 278 patent. The following tree shows the inter-relation between the patents-in-suit (shown in bold):TABLE The patents-in-suit are all based on ...	Sep. 05, 2014	Motion		—
Examined by	**18. Defendant Enfora, Inc.'s Memorandum of Law in Support of its Motion for a Stay Pending Reexamination** OMEGA PATENTS, LLC, a Georgia Limited Liability Company, Plaintiff, v. ENFORA, INC., a Delaware Corporation, Defendant. 2017 WL 7048395, *1+ , N.D.Ga. (Trial Motion, Memorandum and Affidavit) , (NO. 1:17-CV-02769-TWT) ... any scheduling orders or set a Markman hearing or trial date.B. The Asserted Patents In its FAC, Plaintiff asserts infringement of three patents: (1) U.S. Patent No. 8,032,278 (the "#278 Patent "), (2) U.S. Patent No. 6,756,885 (the "#885 Patent"), and (3) U.S. Patent No. 6,346,876 (the "#876 Patent") Dkt. No ...	Nov. 13, 2017	Motion		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Discussed by	**19. Omega Patents, LLC v. Calamp Corp.** 2016 WL 7240311, *1+ , M.D.Fla. , (NO. 613CV1950ORL40DAB) This cause comes before the Court on the following: 1. Defendant CalAmp Corp.'s Motion That U.S. Patent Nos. '876, '885, '727, and '278 Are Not Entitled To Any Priority Date... ... STATES DISTRICT JUDGE This cause comes before the Court on the following:1. Defendant CalAmp Corp.'s Motion That U.S. Patent Nos. '876'885'727, and ' 278 Are Not Entitled To Any Priority Date Earlier Than Their Actual Filing Dates (Doc. 95), filed September 29, 2015; and 2. Plaintiff Omega Patents, LLC's ...	Jan. 13, 2016	Case		—
Discussed by	**20. EX PARTE OMEGA PATENTS, L.L.C. PATENT OWNER AND APPELLANT** 2019 WL 7184387, *2+ , Patent Tr. & App. Bd. , (NO. APPEAL 2019-006299 , PATENT 6,346,876 B1 , REEXAMINATION CONTRO , TECHNOLOGY CENTER 39) Appellant appeals under 35 U.S.C. §§ 134 and 306 the Examiner's decision to reject claims 1-11, 13-26, 29-32, and 42-50. We have jurisdiction under 35 U.S.C. §§ 134 and 306, and... ... PROCEEDINGS This appeal is said to be related to various proceedings. First, Appellant informs us of two related appeals in connection with reexamination proceedings involving U.S. Patents 8,032,278 ("the '278 patent ") and 6,756,885 ("the '885 patent") Appeal Br. 8-11. [FN2] In the appeal involving the 278 patent in connection with ...	Dec. 04, 2019	Administrative Decision		—
Discussed by	**21. Appellant's Reply Brief** Ex Parte OMEGA PATENTS, L.L.C. 2019 WL 8888302, *1+ , Bd.Pat.App. & Interf. (Administrative Filing) , (NO. APP90/014,121) ... has filed follow-on reexamination requests against three other patents of the Patent Owner. And, not content with the PTAB's favorable decision in the second ' 278 patent reexam, Requester has now filed yet a third request for reexamination of the ' 278 patent The following is the list of the reexaminations and ...	Oct. 15, 2019	Administrative Filing		—
Discussed by	**22. Calamp Corp.'s First Amended Counterclaim** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff/Counterdefendant, v. CALAMP CORP., a Delaware corporation, Defendant/ Counterplainti... 2014 WL 11209166, *1+ , M.D.Fla. (Trial Pleading) , (NO. 6:13-CV-1950-GAP-DAB) ... real, and justiciable controversy exists between Counterclaimant CalAmp and Counterdefendant Omega pertaining to U.S. Patent Nos. 6,346,876 B1 6,737,989 B2 6,756,885 B1 7,671,727 B2; and 8,032,278 B2 ("Patents-in-Suit "), which have been asserted by Omega.FACTS The Patents-in-Suit 7. On December 20, 2013, Plaintiff/Counterdefendant Omega filed a ...	Feb. 24, 2014	Petition		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Discussed by	**23. Plaintiff's Motion and Memorandum for a New Trial on Willfulness under Rule 59** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2019 WL 8331709, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL40DCI) ... the claims of U.S. Patent No. 6,346,876 ("the '876 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") The first trial of this matter began on February 16, 2016, and concluded on February 24, 2016, (Dkt. 178 ...	Dec. 23, 2019	Motion		—
Discussed by	**24. Defendant Calamp Corp.'s Motion for Summary Judgment of Noninfringement** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 10477983, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 6:13-CV-1950-PGB-DAB) ... 876 and '885) directed toward the vehicle bus claim priority back to an alarm system patent, while the other two vehicle bus patents ('727 and ' 278) and the vehicle tracking patent ('989) claim priority back to a plethora of provisional patents generally regarding vehicle tracking. Because of their common lineage, the ...	July 01, 2015	Motion		—
Discussed by	**25. Defendant Enfora, Inc.'s Reply Memorandum in Support of its Motion for a Stay Pending Reexamination** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. ENFORA, INC., a Delaware Corporation, Defendant. 2017 WL 7735654, *1+ , N.D.Ga. (Trial Motion, Memorandum and Affidavit) , (NO. 1:17-CV-02769-TWT) ... await the final determinations of the USPTO and the issuance of the reexamination certificates.FN1. Omega asserts infringement of three patents in its FAC: (1) U.S. Patent No. 8,032,278 (the "'278 Patent "), (2) U.S. Patent No. 6,756,885 (the "'885 Patent"), and (3) U.S. Patent No. 6,346,876 (the "'876 Patent")As noted ...	Dec. 11, 2017	Motion		—
Cited by	**26. Vehicle tracker including input/output features and related methods** LitAlert P2020-38-05 ... 2:20CV01344 Filing Date: 09/10/2020 Subsequent Action: 09/10/2020 Action Taken: CAUSE - 35 USC 271 - COMPLAINT FOR PATENT INFRINGEMENT Notes: none Other Patents: US 8032278 US RE47225 US RE47354 Other Trademarks: none See LitAlert No: none ...	Sep. 10, 2020	Lit Alert		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Cited by	**27. Vehicle tracking unit for controlling operable vehicle devices using a vehicle data bus and related methods** LitAlert P2020-17-61 ... 6:20CV00693 Filing Date: 04/21/2020 Subsequent Action: 04/21/2020 Action Taken: CAUSE - 35 USC 271 - COMPLAINT FOR PATENT INFRINGEMENT Notes: none Other Patents: US 8032278 US RE47354 US 8362886 US 9981615 US 7305293 US 8410929 US 8258946 Other Trademarks: none See LitAlert No: none ...	Apr. 21, 2020	Lit Alert		—
Cited by	**28. Omega Patents, LLC v. CalAmp Corp.** 2017 WL 4990654, *1+ , M.D.Fla. , (NO. 613CV1950ORL40DCI) This cause is before the Court on Defendant CalAmp's Motion to Vacate the Judgment and Dismiss for Lack of Venue, (Doc. 222), and Plaintiff Omega's Response in Opposition. (Doc.... ... Patent No. 6,346,876 ("the '876 Patent")U.S. Patent No. 6,737,989 U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") (collectively, the "patents-in-suit"). (Doc. 1). Omega attached to its Complaint a Settlement Agreement entered into between Omega ...	Sep. 22, 2017	Case		—
Cited by	**29. Omega Patents, LLC v. Calamp Corp.** 2016 WL 7177550, *1 , M.D.Fla. , (NO. 613CV1950ORL40DAB) This cause comes before the Court on the following: 1. Plaintiff Omega Patents, LLC's Motion In Limine (Doc. 94), filed September 29, 2015; and 2. Defendant CalAmp Corp.'s Response... ... the '876 Patent")U.S. Patent No. 6,737,989 ("the '989 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") (collectively, the "patents-in-suit"). (Doc. 1). The patents-in-suit relate to control systems for vehicles with a ...	Jan. 19, 2016	Case		—
Cited by	**30. Omega Patents, LLC v. Calamp Corp.** 2016 WL 7229888, *1 , M.D.Fla. , (NO. 613CV1950ORL40DAB) This cause comes before the Court on the following: 1. Plaintiff's Motion to Bifurcate Issues of Inequitable Conduct and Prosecution Laches (Doc. 93), filed September 29, 2015; and... ... the '876 Patent")U.S. Patent No. 6,737,989 ("the '989 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") (collectively, the "patents-in-suit"). (Doc. 1). The patents-in-suit relate to control systems for vehicles with a ...	Jan. 05, 2016	Case		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Cited by	**31. Omega Patents, LLC v. Calamp Corp.** 2015 WL 12830496, *1+ , M.D.Fla. , (NO. 613CV1950ORL40DAB) This cause comes before the Court on the following: 1. Plaintiff's Motion and Memorandum of Law to Exclude the Testimony of Defendant's Expert Eric Andrews (Doc. 55), filed July 1,... ... the '876 Patent")U.S. Patent No. 6,737,989 ("the '989 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") (collectively the "patents-in-suit"). (Doc. 1). The patents-in-suit relate to control systems for vehicles with a ...	Dec. 23, 2015	Case		—
Cited by	**32. Defendant Calamp Corp.'s Answer to Plaintiff's Complaint, Counterclaim, and Jury Demand** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2014 WL 11621847, *1+ , M.D.Fla. (Trial Pleading) , (NO. 6:13-CV-1950-GAP-DAB) ... real, and justiciable controversy exists between Counterclaimant CalAmp and Counterdefendant Omega pertaining to U.S. Patent Nos. 6,346,876 B1 6,737,989 B2 6,756,885 B1 7,671,727 B2; and 8,032,278 B2 ("Patents-in-Suit "), which have been asserted by Omega.Facts 7. On December 20, 2013, Plaintiff/Counter-Defendant Omega filed a Complaint in this ...	Jan. 15, 2014	Petition		—
Cited by	**33. Declaration of Eric Andrews in Support of Defendant Calamp Corp.'s Motion for Summary Judgment of Invalidity** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 12856649, *1+ , M.D.Fla. (Expert Report and Affidavit) , (NO. 613-CV-1950-PGB-DAB) ... asserted patents in this matter, U.S. Patent Nos. 6,346,876 (the '876 patent)6,737,989 (the '989 patent)6,756,885 (the '885 patent)7,671,727 (the '727 patent), and 8,032,278 (the '278 patent) I am informed that copies of the asserted patents were attached as Exhibits B-F to the Complaint (ECF 1) in this ...	July 01, 2015	Expert Materials		—
Cited by	**34. Defendant Calamp Corp.'s Motion for Summary Judgment of Invalidity** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 10478022, *1 , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 6:13-CV-1950-PGB-DAB)	July 01, 2015	Motion		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Cited by	**35. Joint Pretrial Statement** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 10477832, *1+ , M.D.Fla. (Trial Filing) , (NO. 613CV1950ORL40DAB) ... Nos. 6,346,876 B1 ("the '876 Patent"); 6,737,989 B2 ("the '989 Patent); 6,756,885 B1 ("the '885 Patent"); 7,671,727 B2 ("the '727 Patent"); and 8,032,278 B2 ("the ' 278 Patent CalAmp filed counterclaims seeking declaratory judgment of noninfringement, invalidity and unenforceability, as well as asserting a claim for unfair competition.III. BRIEF GENERAL STATEMENT ...	Sep. 22, 2015	Filing		—
Cited by	**36. Verdict Form** OMEGA PATENTS, LLC, Plaintiff, v. CALAMP CORP., Defendant. 2016 WL 1287121, *1+ , M.D.Fla. (Verdict, Agreement and Settlement) , (NO. 613CV1950ORL40DAB) ... Claim 10[] No[] No[] No[] No[] No[X] Yes[X] Yes[X] Yes[X] Yes[X] Yes[X] Yes Claim 11[] No[] No[] No[] No[] No 2.D. U.S. Patent No. 8,032,278 B2 ("the '278 patent "Has Omega proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any ...	Feb. 24, 2016	Jury Verdict		—
Mentioned by	**37. Multi-vehicle compatible control system generating command signals on a data bus and associated methods** LitAlert P2017-30-36 ... Date: 07/21/2017 Subsequent Action: 07/21/2017 Action Taken: CAUSE - 28 USC 1338 - COMPLAINT FOR PATENT INFRINGEMENT Notes: none Other Patents: US 6756885 US 8032278 Other Trademarks: none See LitAlert No: none ...	July 21, 2017	Lit Alert		—
Mentioned by	**38. Multi-vehicle compatible control system generating command signals on a data bus and associated methods** LitAlert P2013-52-29 ... Subsequent Action: 12/20/2013 Action Taken: CAUSE - 35 USC 271 - COMPLAINT FOR PATENT INFRINGEMENT Notes: none Other Patents: US 6737989 US 6756885 US 7671727 US 8032278 Other Trademarks: none See LitAlert No: none ...	Dec. 20, 2013	Lit Alert		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Mentioned by	**39. Omega Patents, Llc's Motion and Memorandum to Dismiss Counterclaims** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2014 WL 11209189, *1 , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL31DAB) ... Court as follows:On December 20, 2013, Omega filed its Complaint, which alleges infringement of five patents (U.S. Patent Nos. 6,346,876 6,737,989 6,756,885 7,671,727 and 8,032,278). (Doc. 1 .) Calamp filed a counterclaim, including claims for patent unenforceability due to alleged inequitable conduct and another for unfair competition derived from the same ...	Feb. 05, 2014	Motion		—
Mentioned by	**40. Omega Patents, LLC's Motion and Memorandum to Dismiss Counterclaims** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2014 WL 11621911, *1 , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL31DAB) ... Court as follows:On December 20, 2013, Omega filed its Complaint, which alleges infringement of five patents (U.S. Patent Nos. 6,346,876 6,737,989 6,756,885 7,671,727 and 8,032,278). (Doc. 1 .) Calamp filed a counterclaim, including claims for patent unenforceability due to alleged inequitable conduct and another for unfair competition derived from the same ...	Feb. 05, 2014	Motion		—
Mentioned by	**41. Plaintiff's Memorandum in Opposition to Enfora, Inc.'s Motion to Stay (Doc. No. 34)** OMEGA PATENTS, LLC, a Georgia Limited Liability Company, Plaintiff, v. ENFORA, INC., a Delaware Corporation, Defendant. 2017 WL 7037864, *1 , N.D.Ga. (Trial Motion, Memorandum and Affidavit) , (NO. 1:17-CV-02769-TWT) ... information gleaned from the first action, Omega filed a second action in Georgia against Enfora, based on the infringement of U.S. Patent Nos. 6,346,876 7,671,727 8,032,278 , and 8,362,886 by the MT-3000 and MT-3050 products. The parties litigated both cases for several more months before Omega dismissed the Florida action ...	Nov. 27, 2017	Motion		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Mentioned by	**42. Plaintiff's Memorandum in Opposition to Enfora, Inc.'s Motion to Dismiss (Doc. No. 28)** OMEGA PATENTS, LLC, a Georgia Limited Liability Company, Plaintiff, v. ENFORA, INC., a Delaware Corporation, Defendant. 2017 WL 7037862, *1 , N.D.Ga. (Trial Motion, Memorandum and Affidavit) , (NO. 1:17-CV-02769-TWT) ... what to do with its accused products. The parties agreed that Omega's infringement claims against Enfora's accused products based on U.S. Patent Nos. 6,346,876 7,671,727 8,032,278 , and 8,362,886 (referred to as the "Georgia Patents-in-Suit") could be restarted and damages that accrued during the period could be claimed by Omega ...	Nov. 13, 2017	Motion		—
—	**43. MULTI VEHICLE COMPATIBLE TRACKING UNIT FOR VEHICLES HAS DOWNLOADING INTERFACE, WHICH ENABLES DOWNLOADING OF ENABLING DATA RELATED TO AT LEAST ONE CORRESPONDING VEHICLE DEVICE CODE TO BE USED BY MULTI-VEHICLE COMPATIBLE CONTROLLER** Out Of Plan DWPI 2008-A15683+ ... to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.First Derwent Appearance:2008.01 Publication No. (Derwent): US 8032278 B2 Original Title (English):VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS Publication Date:2011-10-04 Application No.:US 773272 Application Date ...	May 17, 2000	DWPI	—	—
—	**44. RF 019515/0350** Out Of Plan ... 32801 Number of Pages 3 Last Modified 2011-10-04 PATENTS AFFECTED Title VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS Granted Patent Number US Pat. 8032278 Granted Patent Date 2011-10-04 Published Application Number US Pat. App. 20070279283 Published Application Date 2007-12-06 Application Number 11/773272 ...	July 03, 2007	Assignments	—	—
—	**45. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXA Description: Request for Re-Examination Reissue Number:OG Date: 04/27/2021 ...	Apr. 27, 2021	Patent Status Files	—	—
—	**46. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXA Description: Request for Re-Examination Reissue Number:OG Date: 02/18/2020 ...	Feb. 18, 2020	Patent Status Files	—	—
—	**47. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXC Description: Re-Examination Certificate Reissue Number:OG Date: 01/14/2020 ...	Jan. 14, 2020	Patent Status Files	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**48. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXA Description: Request for Re-Examination Reissue Number:OG Date: 08/13/2019 ...	Aug. 13, 2019	Patent Status Files	—	—
—	**49. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXC Description: Re-Examination Certificate Reissue Number:OG Date: 02/12/2019 ...	Feb. 12, 2019	Patent Status Files	—	—
—	**50. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXA Description: Request for Re-Examination Reissue Number:OG Date: 01/17/2017 ...	Jan. 17, 2017	Patent Status Files	—	—
—	**51. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXC Description: Re-Examination Certificate Reissue Number:OG Date: 01/03/2017 ...	Jan. 03, 2017	Patent Status Files	—	—
—	**52. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXA Description: Request for Re-Examination Reissue Number:OG Date: 11/10/2015 ...	Nov. 10, 2015	Patent Status Files	—	—
—	**53. Omega Patents, LLC v. Firstech, LLC**	Sep. 10, 2020	Docket Summaries	—	—
—	**54. Title Available on Document Page**	—	Docket Summaries	—	—
—	**55. Omega Patents, LLC v. Enfora, Inc.**	July 21, 2017	Docket Summaries	—	—
—	**56. OMEGA PATENTS, LLC v. CALAMP CORP**	Dec. 20, 2013	Docket Summaries	—	—
—	**57. OMEGA PATENTS, LLC v. ENFORA, INC**	Feb. 28, 2013	Docket Summaries	—	—
—	**58. SYSTEMS AND METHODS FOR TRACKING MULTIPLE COLLOCATED ASSETS** Cl. of Pat. US PAT 11022671 , U.S. PTO Utility Systems and methods for locating collocated assets in accordance with embodiments of the invention are disclosed. In one embodiment of the invention, an asset tracking device... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8065342 B1 2011/11 Borg et al.cited by applicant US United States ...	June 01, 2021	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**59.** REMOTE VEHICLE SYSTEM CONFIGURATION, CONTROL, AND TELEMATICS Out Of Plan US PAT 10720045 , U.S. PTO Utility A vehicle control system (VCS) includes external communication interfaces, such as a Bluetooth interface, for communicating with a user communication and control device, such as a... ... States US 7898404 B2 2011/03 Flick cited by applicant US United States US 7899592 B2 2011/03 Yaqub cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8061626 B2 2011/11 Flick cited by applicant US United States US 8090499 ...	July 21, 2020	Patents	—	—
—	**60.** SYSTEMS AND METHODS FOR RADIO ACCESS INTERFACES Out Of Plan US PAT 10645551 , U.S. PTO Utility Systems and methods for radio access interfaces in accordance with embodiments of the invention are disclosed. In one embodiments, a vehicle telematics device includes a processor,... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8065342 B1 2011/11 Borg et al.cited by applicant US United States ...	May 05, 2020	Patents	—	—
—	**61.** SYSTEMS AND METHODS FOR FAILSAFE FIRMWARE UPGRADES Out Of Plan US PAT 10599421 , U.S. PTO Utility Systems and methods for failsafe firmware upgrades in accordance with embodiments of the invention are disclosed. One embodiment includes a vehicle telematics device, including: a... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8155841 B2 2012/04 Erb cited by applicant US United States US 8330626 ...	Mar. 24, 2020	Patents	—	—
—	**62.** SYSTEMS AND METHODS FOR TRACKING MULTIPLE COLLOCATED ASSETS Out Of Plan US PAT 10473750 , U.S. PTO Utility Systems and methods for locating collocated assets in accordance with embodiments of the invention are disclosed. In one embodiment of the invention, an asset tracking device... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8065342 B1 2011/11 Borg et al.cited by applicant US United States ...	Nov. 12, 2019	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**63.** SYSTEMS AND METHODS FOR LOW LATENCY 3-AXIS ACCELEROMETER CALIBRATION Out Of Plan US PAT 10466269 , U.S. PTO Utility Systems and methods for low-latency calibration of the alignment of 3-axis accelerometers in accordance embodiments of the invention are disclosed. In one embodiment of the... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8155841 B2 2012/04 Erb cited by applicant US United States US 8489271 ...	Nov. 05, 2019	Patents	—	—
—	**64.** SYSTEMS AND METHODS FOR CRASH DETERMINATION WITH NOISE FILTERING Out Of Plan US PAT 10395438 , U.S. PTO Utility Embodiments of the invention include a vehicle telematics system including a telematics device and a remote server system, wherein the telematics device obtains sensor data from at... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8155841 B2 2012/04 Erb cited by applicant US United States US 8489271 ...	Aug. 27, 2019	Patents	—	—
—	**65.** TELEMATICS ROAD READY SYSTEM WITH USER INTERFACE Out Of Plan US PAT 10388161 , U.S. PTO Utility A system for monitoring a trailer includes a plurality of wireless sensors mounted to a trailer for monitoring conditions of the trailer; a master control unit attached to an... ... 8000843 B2 2011/08 Kim cited by applicant US United States US 8010127 B2 2011/08 Burtner et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8223009 B2 2012/07 Anderson et al.cited by applicant US United States ...	Aug. 20, 2019	Patents	—	—
—	**66.** SYSTEMS AND METHODS FOR DETERMINING VEHICLE OPERATIONAL STATUS Out Of Plan US PAT 10304264 , U.S. PTO Utility Systems and methods for determining vehicle operational status in accordance with embodiments of the invention are disclosed. In one embodiment, a vehicle status determination... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8489271 B2 2013/07 Hergesheimer et al.cited by applicant US United States ...	May 28, 2019	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**67. SYSTEMS AND METHODS FOR IMPACT DETECTION WITH NOISE ATTENUATION OF A SENSOR SIGNAL** Out Of Plan US PAT 10214166 , U.S. PTO Utility Systems and methods for impact detection in accordance with embodiments of the invention are disclosed. In one embodiment, a vehicle impact detection system includes an... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8155841 B2 2012/04 Erb cited by applicant US United States US 8489271 ...	Feb. 26, 2019	Patents	—	—
—	**68. SYSTEMS AND METHODS FOR RADIO ACCESS INTERFACES** Out Of Plan US PAT 10219117 , U.S. PTO Utility Systems and methods for radio access interfaces in accordance with embodiments of the invention are disclosed. In one embodiments, a vehicle telematics device includes a processor,... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8330626 B1 2012/12 Adelson cited by applicant US United States US 8489271 ...	Feb. 26, 2019	Patents	—	—
—	**69. VEHICLE SYSTEM INCLUDING SECURITY UNIT PROVIDING DEGRADATION COMMANDS VIA A VEHICLE DATA BUS AND RELATED METHODS** Out Of Plan US PAT 10180689+ , U.S. PTO Utility A vehicle security unit is for a vehicle including at least one data communications bus, an On-Board Diagnostic (OBD) port coupled to the at least one data communications bus, and... ... 5252966 A 1993/10 Lambropoulos et al.cited by applicant US United States US 6011460 A 2000/01 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 9656631 B1 2017/05 Flick cited by applicant US United States US 2009 ...	Jan. 15, 2019	Patents	—	—
—	**70. MOBILE HYBRID TRANSMIT/RECEIVE NODE FOR NEAR-FIELD WIRELESS POWER DELIVERY** Out Of Plan US PAT 10181729 , U.S. PTO Utility A system and method for a mobile hybrid transmitter/receiver (TX/RX) node for wireless resonant power delivery is disclosed. A hybrid TX/RX can be configured to travel to remote,... ... 6087806 A 2000/07 Fujioka cited by applicant US United States US 6980000 B2 2005/12 Wong et al.cited by applicant US United States US 8032278 B2 2011/10 Flick 362/104 B60R 25/04 cited by examiner US United States US 8143746 B2 2012/03 Marzetta et al.cited ...	Jan. 15, 2019	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**71.** SYSTEMS AND METHODS FOR EFFICIENT CHARACTERIZATION OF ACCELERATION EVENTS Out Of Plan US PAT 10107831 , U.S. PTO Utility Systems and methods for the efficient characterization of acceleration events in accordance embodiments of the invention are disclosed. In one embodiment of the invention, an... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8489271 B2 2013/07 Hergesheimer et al.cited by applicant US United States ...	Oct. 23, 2018	Patents	—	—
—	**72.** SYSTEMS AND METHODS FOR LOCATION REPORTING OF DETECTED EVENTS IN VEHICLE OPERATION Out Of Plan US PAT 10102689 , U.S. PTO Utility Systems and methods for location reporting of detected events during vehicle operation in accordance embodiments of the invention are disclosed. In one embodiment of the invention,... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8489271 B2 2013/07 Hergesheimer et al.cited by applicant US United States ...	Oct. 16, 2018	Patents	—	—
—	**73.** TELEMATICS ROAD READY SYSTEM Out Of Plan US PAT 10093232 , U.S. PTO Utility A system for monitoring a trailer having a plurality of light emitting diode devices includes a master control unit attached to an outside surface of the trailer. The master... ... 8000843 B2 2011/08 Kim cited by applicant US United States US 8010127 B2 2011/08 Burtner et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8223009 B2 2012/07 Anderson et al.cited by applicant US United States ...	Oct. 09, 2018	Patents	—	—
—	**74.** SYSTEMS AND METHODS FOR CRASH DETERMINATION Out Of Plan US PAT 10055909 , U.S. PTO Utility Systems and methods for crash determination in accordance with embodiments of the invention are disclosed. In one embodiment, a vehicle telematics device includes a processor and a... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8155841 B2 2012/04 Erb cited by applicant US United States US 8489271 ...	Aug. 21, 2018	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**75.** REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan US PAT 9981615+ , U.S. PTO Utility A remote function control system for a vehicle including a data communications bus extending throughout the vehicle and coupled to vehicle devices may include a wireless data bus... ... Flick 701/002 cited by examiner US United States US 7818097 B2 2010/10 Fein et al 701/001 cited by examiner US United States US 8032278 B2 2011/10 Flick 701/036 cited by examiner US United States US 8269601 B2 2012/09 Burzio 340/005.6 cited by examiner ...	May 29, 2018	Patents	—	—
—	**76.** REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan US PAT 9981616+ , U.S. PTO Utility A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... States US 7818097 B2 2010/10 Fein cited by applicant US United States US 7734382 B2 2010/11 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick 382/104 B60R 25/04 cited by examiner US United States US 8269601 B2 2012/09 Burzio cited by applicant ...	May 29, 2018	Patents	—	—
—	**77.** REMOTE FUNCTION CONTROL SYSTEM WITH REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan US PAT 9925956+ , U.S. PTO Utility A remote function control system is for a vehicle including a data bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired vehicle... ... Flick 340/426.1 B60R 25/1004 cited by examiner US United States US 7010402 B2 2006/03 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8362886 B2 2013/01 Flick cited by applicant US United States US 9656631 ...	Mar. 27, 2018	Patents	—	—

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—	**78.** REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan US PAT 9919682+ , U.S. PTO Utility A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... Flick 340/426.1 B60R 25/1004 cited by examiner US United States US 7010402 B2 2006/03 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8362886 B2 2013/01 Flick cited by applicant US United States US 9656631 ...	Mar. 20, 2018	Patents	—	—
—	**79.** MULTI-CONTROLLER DATA BUS ADAPTOR OPERABLE BASED UPON DATA BUS ADAPTOR COMMUNICATION DETERMINED ADAPTOR CODES AND RELATED METHODS Out Of Plan US PAT 9797183 , U.S. PTO Utility A remote control system may be for a vehicle including a data communications bus and connecting vehicle devices. The vehicle devices may be operable with a set of vehicle device... ... 16/03 cited by examiner US United States US 6756885 B1 2004/06 Flick 180/287 B60R 25/04 cited by examiner US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8362886 B2 2013/01 Flick cited by applicant US United States US 2001 ...	Oct. 24, 2017	Patents	—	—
—	**80.** REMOTE FUNCTION CONTROL SYSTEM WITH WIRELESS DATABUS DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan US PAT 9656631+ , U.S. PTO Utility A remote function control system is for a vehicle including a data communications bus and coupled to a plurality of vehicle devices, and a wired electrical power system. A wireless... ... Flick cited by applicant US United States US 7463132 B2 2008/12 Deng 340/005.2 G07C 9/00563 cited by examiner US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8362886 B2 2013/01 Flick cited by applicant US United States US 2005 ...	May 23, 2017	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**81.** SYSTEMS AND METHODS FOR DETERMINING VEHICLE OPERATIONAL STATUS Out Of Plan US PAT 9644977 , U.S. PTO Utility Systems and methods for determining vehicle operational status in accordance with embodiments of the invention are disclosed. In one embodiment, a vehicle status determination... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8489271 B2 2013/07 Hergesheimer et al.cited by applicant US United States ...	May 09, 2017	Patents	—	—
—	**82.** MULTI-CONTROLLER DATA BUS ADAPTOR OPERABLE BASED UPON CONTROLLER DOWNLOADED ADAPTOR CODES AND RELATED METHODS Out Of Plan US PAT 9582991 , U.S. PTO Utility A remote control system may be for a vehicle including a data communications bus extending throughout the vehicle and connecting vehicle devices. The vehicle devices may be... ... States US 6346876 B1 2002/02 Flick cited by applicant US United States US 6756885 B1 2004/06 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8362886 B2 2013/01 Flick cited by applicant US United States US 2007 ...	Feb. 28, 2017	Patents	—	—
—	**83.** REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan US PAT 9527478+ , U.S. PTO Utility A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... States US 7734382 B2 2010/06 Flick cited by applicant US United States US 7818097 B2 2010/10 Fein cited by applicant US United States US 8032278 B2 2011/10 Flick 382/104 B60R 25/04 cited by examiner US United States US 8269601 B2 2012/09 Burzio cited by applicant ...	Dec. 27, 2016	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**84.** SYSTEMS AND METHODS FOR COLLECTING INFORMATION FROM VEHICLE DEVICES VIA A VEHICLE DATA BUS Out Of Plan US PAT 9171460 , U.S. PTO Utility Systems and methods in accordance with embodiments of the invention continuously collecting information via a vehicle data bus, store the information in a database, and retrieve... ... 7250850 B2 2007/07 Mizutani 340/435 cited by examiner US United States US 7671727 B2 2010/03 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 2012/0158211 A1 2012/06 Chen et al.cited by applicant Other Publications ...	Oct. 27, 2015	Patents	—	—
—	**85.** SYSTEM INCLUDING VEHICLE LOCATION ALERT BASED COMMUNICATION WITH A VEHICLE AUDIO ENTERTAINMENT SYSTEM AND RELATED METHODS Out Of Plan US PAT 9159233+ , U.S. PTO Utility A system for a vehicle having a data communications bus extending throughout the vehicle, and an audio entertainment system coupled to the data communications bus may include a... ... 2007/12 Schofield et al.701/001 cited by examiner US United States US 7898404 B2 2011/03 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 2002/0130769 A1 2002/09 Yamagishi 340/426 cited by examiner US United ...	Oct. 13, 2015	Patents	—	—
—	**86.** VEHICLE WITH AT LEAST ONE ENVIRONMENT DETECTION SYSTEM Out Of Plan US PAT 9111452 , U.S. PTO Utility A vehicle is equipped with at least one environment detection system, a communication system which transmits information by remote transmission to receivers external to the... ... Sakata et al.382/159 cited by examiner US United States US 7983802 B2 2011/07 Breed 701/001 cited by examiner US United States US 8032278 B2 2011/10 Flick 701/036 cited by examiner US United States US 8229663 B2 2012/07 Zeng et al.701/301 cited by ...	Aug. 18, 2015	Patents	—	—
—	**87.** COMMUNICATION DEVICE AND CAR FINDER SYSTEM Out Of Plan US PAT 9037081 , U.S. PTO Utility A car finder system has a portable terminal that receives a preset operation performed thereon for wirelessly transmitting a preset car finder instruction. A communication device... ... et al.340/988 cited by examiner US United States US 7865603 B2 2011/02 Santavicca 455/041.2 cited by examiner US United States US 8032278 B2 2011/10 Flick 701/036 cited by examiner US United States US 8232897 B2 2012/07 Tieman et al.340/990 cited by ...	May 19, 2015	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**88.** SYSTEM INCLUDING VEHICLE SPEED ALERT BASED COMMUNICATION WITH A VEHICLE AUDIO ENTERTAINMENT SYSTEM AND RELATED METHODS Out Of Pat. US PAT 9031546+ , U.S. PTO Utility A system for a vehicle having a data communications bus extending throughout the vehicle, and an audio entertainment system coupled to the data communications bus may include a... ... 2011/03 Flick cited by applicant US United States US 7952512 B1 2011/05 Delker et al 342/042 cited by examiner US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8212691 B2 2012/07 Pudar 340/988 cited by examiner US United States ...	May 12, 2015	Patents	—	—
—	**89.** SYSTEMS AND METHODS FOR COLLECTING INFORMATION FROM VEHICLE DEVICES VIA A VEHICLE DATA BUS Out Of Pat. US PAT 8812173 , U.S. PTO Utility Systems and methods in accordance with embodiments of the invention continuously collect information from vehicle devices via a vehicle data bus, store information in a database,... ... 7250850 B2 2007/07 Mizutani 340/435 cited by examiner US United States US 7671727 B2 2010/03 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant Other Publications:Road vehicles---Diagnostic System---Part 2: Carb requirements for interchange of digital information, ISO 9141 ...	Aug. 19, 2014	Patents	—	—
—	**90.** VEHICLE SYSTEM INCLUDING REMOTE START DATA BUS COMMAND SENDING BASED UPON A SHORT-RANGE LINK AND RELATED METHODS Out Of Pat. US PAT APP 20190143935 , U.S. PTO Application A vehicle system for a vehicle may include a vehicle tracking unit that includes a first bus interface to be coupled to a first data communications bus of the vehicle, a vehicle... ... 59#, and have multi-vehicle capability so that the remote start unit can interface with different vehicles, as disclosed in U.S. Patent Nos. 6,011,460 and 8,032,278 , for example, the entire contents of which are hereby incorporated herein by reference. Of course, remote start capability could also be included within the vehicle ...	May 16, 2019	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**91.** VEHICLE SYSTEM INCLUDING SECURITY UNIT PROVIDING DEGRADATION COMMANDS VIA A VEHICLE DATA BUS AND RELATED METHODS Out Of Plan US PAT APP 20180050660 , U.S. PTO Application A vehicle security unit is for a vehicle including at least one data communications bus, an On-Board Diagnostic (OBD) port coupled to the at least one data communications bus, and... ... 59#, and have multi-vehicle capability so that the remote start unit can interface with different vehicles, as disclosed in U.S. Pat. Nos. 6,011,460 and 8,032,278 , for example, the entire contents of which are hereby incorporated herein by reference. Of course, remote start capability could also be included within the vehicle ...	Feb. 22, 2018	Patents	—	—
—	**92.** REMOTE FUNCTION CONTROL SYSTEM WITH REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan US PAT APP 20170197587 , U.S. PTO Application A remote function control system is for a vehicle including a data bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired vehicle... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 23 may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	July 13, 2017	Patents	—	—
—	**93.** REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan US PAT APP 20170197588 , U.S. PTO Application A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 23 may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	July 13, 2017	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**94.** REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan US PAT APP 20150291109 , U.S. PTO Application A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 23# may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	Oct. 15, 2015	Patents	—	—
—	**95.** REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan US PAT APP 20150246658 , U.S. PTO Application A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 23# may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	Sep. 03, 2015	Patents	—	—
—	**96.** SYSTEM INCLUDING VEHICLE LOCATION ALERT BASED COMMUNICATION WITH A VEHICLE AUDIO ENTERTAINMENT SYSTEM AND RELATED METHODS Out Of Plan US PAT APP 20140266811 , U.S. PTO Application A system for a vehicle having a data communications bus extending throughout the vehicle, and an audio entertainment system coupled to the data communications bus may include a... ... vehicle 211 or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 217 may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	Sep. 18, 2014	Patents	—	—

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—	**97.** SYSTEM INCLUDING VEHICLE SPEED ALERT BASED COMMUNICATION WITH A VEHICLE AUDIO ENTERTAINMENT SYSTEM AND RELATED METHODS Ord. Of Pan. US PAT APP 20140274012 , U.S. PTO Application A system for a vehicle having a data communications bus extending throughout the vehicle, and an audio entertainment system coupled to the data communications bus may include a... ... vehicle 211 or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 217 may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	Sep. 18, 2014	Patents	—	—
—	**98.** REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Ord. Of Pan. US PAT APP 20140277838 , U.S. PTO Application A remote function control system for a vehicle including a data communications bus extending throughout the vehicle and coupled to vehicle devices may include a wireless data bus... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 23# may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	Sep. 18, 2014	Patents	—	—
—	**99.** REMOTE FUNCTION CONTROL SYSTEM WITH REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Ord. Of Pan. CA PAT 2951679 C A remote function control system is for a vehicle including a data bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired vehicle... ... vehicle or may be removed from the vehicle for 9 programming. Further details of programming a multi-vehicle compatible controller 23 may be found in U.S. Patent No. 8,032,278 to Flick, assigned to the present assignee, 11 and the entire contents of which are herein incorporated by reference. Other or 12 ...	Feb. 09, 2021	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**100.** VEHICLE SYSTEM INCLUDING SECURITY UNIT PROVIDING DEGRADATION COMMANDS VIA A VEHICLE DATA BUS AND RELATED METHODS Out Of Plan CA PAT 2974521 C A vehicle security unit is for a vehicle including at least one data communications bus, an On-Board Diagnostic (OBD) port coupled to the at least one data communications bus, and... ... and have multi-vehicle capability so that the remote start unit can interface with different 3 vehicles, as disclosed in U.S. Patent Nos. 6,011,460 and 8,032,278 , for example. Of course, 4 remote start capability could also be included within the vehicle security unit 45' as well. [0034] In accordance with another ...	June 04, 2019	Patents	—	—
—	**101.** REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan CA PAT 2925135 C A remote function control system is provided for a vehicle including a data communications bus and coupled to a plurality of vehicle devices, and a wired vehicle electrical ... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi- vehicle compatible controller 23' may be found in U.S. Patent No. 8,032,278 to Flick, assigned to the present assignee. Other or additional programming or configuration techniques may be used, as will be appreciated by ...	Jan. 15, 2019	Patents	—	—
—	**102.** VEHICLE SYSTEM INCLUDING REMOTE START DATA BUS COMMAND SENDING BASED UPON A SHORT-RANGE LINK AND RELATED METHODS Out Of Plan CA PAT APP 3062636 A1 A vehicle system for a vehicle may include a vehicle tracking unit that includes a first bus interface to be coupled to a first data communications bus of the vehicle, a vehicle... ... and have multi-vehicle capability so that the remote start unit can interface with different 13 vehicles, as disclosed in U.S. Patent Nos. 6,011,460 and 8,032,278 , for example. Of course, 14 remote start capability could also be included within the vehicle security unit 45' as well. [0039] In accordance with another ...	July 08, 2020	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**103.** VEHICLE SYSTEM INCLUDING SECURITY UNIT PROVIDING DEGRADATION COMMANDS VIA A VEHICLE DATA BUS AND RELATED METHODS Out Of Plan CA PAT APP 2974521 A1 A vehicle security unit is for a vehicle including at least one data communications bus, an On-Board Diagnostic (OBD) port coupled to the at least one data communications bus,... ... and have multi-vehicle capability so that the remote start unit can interface with different 3 vehicles, as disclosed in U.S. Patent Nos. 6,011,460 and 8,032,278 , for example. Of course, 4 remote start capability could also be included within the vehicle security unit 45' as well. [0034] In accordance with another ...	Feb. 19, 2018	Patents	—	—
—	**104.** REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan CA PAT APP 2951747 A1 A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... or may be removed from the vehicle for 28 programming. Further details of programming a multi-vehicle compatible controller 23 29 may be found in U.S. Patent No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or 11 23040620 ...	July 12, 2017	Patents	—	—
—	**105.** REMOTE FUNCTION CONTROL SYSTEM WITH WIRELESS DATABUS DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan CA PAT APP 2951778 A1 A remote function control system is for a vehicle including a data communications bus and coupled to a plurality of vehicle devices, and a wired electrical power system. A... ... or may be removed from the vehicle for 28 programming. Further details of programming a multi-vehicle compatible controller 23 29 may be found in U.S. Patent No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or 11 23040561 ...	July 12, 2017	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**106.** REMOTE FUNCTION CONTROL SYSTEM WITH REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan CA PAT APP 2951679 A1 A remote function control system is for a vehicle including a data bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired vehicle... ... vehicle or may be removed from the vehicle for 9 programming. Further details of programming a multi-vehicle compatible controller 23 may be found in U.S. Patent No. 8,032,278 to Flick, assigned to the present assignee, 11 and the entire contents of which are herein incorporated by reference. Other or 12 ...	July 12, 2017	Patents	—	—
—	**107.** REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan CA PAT APP 2925135 A1 A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... or 22 may be removed from the vehicle for programming. Further details of programming a multi- 23 vehicle compatible controller 23' may be found in U.S. Patent No. 8,032,278 to Flick, assigned 24 to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional ...	Oct. 28, 2016	Patents	—	—
—	**108.** TOP STORY-FED. CIR.: OWNER OF "LOJACK' TECHNOLOGY TOLD TO HIT THE ROAD IN APPEAL OF INFRINGEMENT CLAIM	2021	Other Secondary Source	—	—
—	**109.** TOP STORY-FED. CIR.: NEW TRIAL REQUIRED AND DAMAGES VACATED IN REMOTE VEHICLE CONTROL PATENT DISPUTE Although a federal district court's no-invalidity findings were affirmed, reversal of several findings of infringement required vacatur of the over-$15 million damages award and a... ... suit brought by Omega Patents against CalAmp Corp. alleging infringement of Omega's U.S. Patent Nos. 6,346,876 ('876 patent)6,756,885 ('885 patent)7,671,727 ('727 patent), and 8,032,278 ('278 patent) , the...Although a federal district court's no-invalidity findings were affirmed, reversal of several findings of infringement required vacatur of the over-$15 ...	2019	Other Secondary Source	—	—

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Results for: US PAT 8032278

Cases (5) Sort by: Relevance

1.

Omega Patents, LLC v. CalAmp Corp.

11th Circuit - US District Court Cases | United States District Court for the Middle District of Florida, Orlando Division | Jan 05, 2016 | 2016 U.S. Dist. LEXIS 174577

... U.S. Patent No. 7,671,727 ("the '727 Patent") , and **U.S. Patent No. 8,032,278** ("the '278 Patent") (collectively, the "patents-in-suit"). (Doc. 1). The patents-in-suit relate ...

2.

Omega Patents, LLC v. CalAmp Corp.

Federal Circuit - US Court of Appeals Cases | United States Court of Appeals for the Federal Circuit | Sep 14, 2021 | 13 F.4th 1361

Overview: In a patent infringement action, a new trial on damages for infringement of the '278 patent was warranted because the district court abused its discretion in precluding appellant's damages expert from offering his fully disclosed rebuttal testimony in the retrial, and in denying appellant's motion for a new trial on that basis.

... from a judgment of infringement and award of damages as to **U.S. Patent No. 8,032,278** ("the '278 patent") . Omega Patents, LLC (" Omega ") cross-appeals ...

3.

Omega Patents, LLC v. Calamp Corp.

11th Circuit - US District Court Cases | United States District Court for the Middle District of Florida, Orlando Division | Sep 22, 2017 | 2017 U.S. Dist. LEXIS 186645

... U.S. Patent No. 7,671,727 ("the '727 Patent") , and **U.S. Patent No. 8,032,278** ("the '278 Patent") (collectively, the "patents-in-suit"). (Doc. 1). Omega attached to ...

4.

Omega Patents, LLC v. CalAmp Corp.

11th Circuit - US District Court Cases | United States District Court for the Middle District of Florida, Orlando Division | Apr 06, 2017 | 2017 U.S. Dist. LEXIS 55846

... 1, 10, and 11. (Id. at p. 4). , and **U.S. Patent No. 8,032,278** ("the '278 Patent") 4 The jury found infringement

of claims 1-6, ...

5.

Omega Patents, LLC v. CalAmp Corp.

11th Circuit - US District Court Cases | United States District Court for the Middle District of Florida, Orlando Division | Jan 13, 2016 | 2016 U.S. Dist. LEXIS 174576

... U.S. Patent No. 7,671,727 ("the '727 Patent") , and **U.S. Patent No. 8,032,278** ("the '278 Patent") (collectively, the "patents-in-suit"). (Doc. 1). The patents-in-suit relate ...

Content type: Cases

Terms: US PAT 8032278

Search Type: Boolean - Fewer Results

Narrow By: None

Date and Time: Apr 19, 2022 09:30:34 p.m. EDT

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Results for: patent-number(8032278)

Dockets (5) Sort by: Relevance

1.

Omega Patents, Llc V. Calamp Corp.

United States District Court, Florida Middle | Dec 20, 2013 | 6:13cv1950 | Open
... vehicle having a data bus and associated methods 2010-03-02 340 466 **8,032,278** Vehicle tracking unit with downloadable codes and associated methods 2011-10-04 701 ...

2.

Omega Patents, Llc V. Dei Holdings, Inc.

United States District Court, Florida Middle | Apr 21, 2020 | 6:20cv693 | Closed
... US District Court for the Middle District of Florida 2020-04-21 5YK5-H0V1-J9YR-S43C-00000-00 **8,032,278** Vehicle tracking unit with downloadable codes and associated methods 2011-10-04 701 ...

3.

Omega Patents, Llc V. Enfora, Inc.

United States District Court, Georgia Northern | Jul 21, 2017 | 1:17cv2769 | Closed
... reading from a data bus and associated methods 2004-06-29 340 426.1 **8,032,278** Vehicle tracking unit with downloadable codes and associated methods 2011-10-04 701 ...

4.

Omega Patents, Llc V. Enfora, Inc.

US District Court for the Northern District of Georgia | Feb 28, 2013 | 1:13cv646 | Closed
... vehicle having a data bus and associated methods 2010-03-02 340 466 **8,032,278** Vehicle tracking unit with downloadable codes and associated methods 2011-10-04 701 ...

5.

Omega Patents Llc V. Firstech Llc

United States District Court, Washington Western | Sep 10, 2020 | 2:20cv1344 | Closed
... Vehicle tracker including input/output features and related methods 2007-12-04 701 45 **8,032,278** Vehicle tracking unit with downloadable codes and associated methods 2011-10-04 701 ...

Content type: Dockets

Terms: patent-number(8032278)

Search Type: Boolean - Fewer Results

Narrow By: Case Status: Open or Unknown or Closed, Court: United States U.S. District Courts (Civil) or Alaska State or Arizona State or Arkansas State or California State or Connecticut State or Delaware State or District of Columbia State or Florida State or Georgia State or Hawaii State or Idaho State or Illinois State or Iowa State or Kansas State or Maryland State or Massachusetts State or Michigan State or Minnesota State or Mississippi State or Nevada State or New Hampshire State or New Jersey State or New York State or Ohio State or Oklahoma State or Oregon State or Pennsylvania State or Tennessee State or Texas State or Utah State or Vermont State or Virginia State or West Virginia State or Wisconsin State, Case Type: Appeals or Circuit Civil or Civil or Civil Unlimited or County Civil or District Civil or Petition for Review or Writ Appeals, Case Classification: Civil, noscategory: Intellectual Property or Judicial Review or Other Civil or Intellectual Property or Judicial Review or Other Civil or Intellectual Property or Judicial Review or Other Civil or Intellectual Property or Judicial Review or Other Civil or Intellectual Property or Judicial Review or Other Civil or Intellectual Property or Judicial Review or Other Civil or Intellectual Property or Judicial Review or Other Civil or Intellectual Property or Judicial Review or Other Civil or Intellectual Property or Judicial Review or Other Civil or

Intellectual Property or Judicial Review or Other Civil or Intellectual Property or Judicial Review or Other Civil

Date and Time: Apr 19, 2022 09:35:59 p.m. EDT

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EXHIBIT 1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: **KENNETH E. FLICK**	
Request for Reexamination of **8,032,278**	
Control No. **90/014,675**	Attorney Docket No.: **(58106CIP1_REX5)**
Confirmation No. **7247**	
Filing Date: **2/16/2021**	Examiner: **L. WASSUM**
For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	Art Unit: **3992**

DECLARATION BY JOSEPH C. McALEXANDER, III UNDER 37 C.F.R. §1.132

I, the undersigned, hereby declare that:

I. Background

1. In formulating my opinions, I have relied upon my training, knowledge, and experience in the relevant art.

2. I am the Founder and President of McAlexander Sound, Inc., a professional engineering company, formerly the IP Director of CCI, a leader in the field of underwater wireless dive computers, Vice President of EPI Technologies, Inc., a systems and integrated circuit testing and reliability certification company, and a design and product manager at Texas Instruments. I have 49 years of experience in microcircuit and semiconductor technologies, including: device design, fabrication, assembly, testing, and marketing; control system

design and analysis; and quality, reliability, and defect/failure analysis.

3. I am a technical expert in the subject matter areas relevant to this *ex parte* reexamination, including design and testing of circuits and systems related to control systems employing wireless communication protocols and operation, information storage and transfer, user interfaces, information signal processing, applications and operating systems, and electronic device hardware and firmware design and control. From 2000-2003, I represented Toyoto as its 30(b)(6) witness and technical expert focused on vehicle alarm systems.

4. I am a Registered Professional Engineer (#79454) in the State of Texas and hold a Bachelor of Science degree in Electrical Engineering from North Carolina State University.

5. I am an inventor on 31 U.S. patents and a number of foreign patents, and I am familiar with the patent process. Five of the 31 patents (3 U.S. and 2 EP) are directed to MEMs technology for vehicle air bag sensor deployment. Three of the 31 patents (2 U.S. and 1 EP) are directed to mobile device tracking, such as is used to track vehicles.

6. I have been an expert witness and technical consultant for the past 32 years in IP matters related to product/process analysis and investigation.

7. I prepared expert reports and provided trial testimony in the case of Omega Patents, LLC (the '278 Patent Owner) v. CalAmp Corp. (the Requester supplies the defendant with the infringing product) that recently concluded in the Middle District of Florida (hereinafter referred to as the "CalAmp litigation"). In that CalAmp litigation, the '278 patent was asserted and determined by the jury to be not invalid, and to be infringed by CalAmp. (First Jury Verdict, Exhibit 2). In the Court's Final Order of April 5, 2017 (Exhibit 6), the Court confirmed that the asserted claims were not invalid (including the claims of the '278 patent).

8. I have been retained by the Patent Owner to provide technical consultation in the present reexamination of the '278 patent, particularly with respect to addressing rejections based upon Lowrey et al. and Lightener et al.

II. The '278 Patent and Current Office Action

9. I have extensively reviewed the '278 patent, along with its file history, and arguments advanced by CalAmp's trial expert, Mr. Andrews, as part of my work on behalf of the Patent Owner during the course of the CalAmp litigation. I have also reviewed the related litigation trial transcript and exhibits, and have reviewed the Court's Final Order of April 5, 2017, and Final Judgment of April 24, 2017.

10. I have reviewed the current Office Action dated June 21, 2021 for the fifth reexamination of the '278 patent. In that Office Action, the claims were rejected as follows:

Claims 1, 4-11 and 18-22 were rejected over Lowrey et al. in view of Lightener et al.

11. Representative Claim 1 of the '278 patent is directed to a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit comprises a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The multi-vehicle compatible tracking unit comprises a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller. Independent Claim 13 (patentability already confirmed) recites that the downloading interface includes a connector for temporary connection to a downloading device. Independent Claim 18 recites that the downloading interface includes a wireless receiver for temporary connection to a downloading device.

III. The Prior Art Analysis

12. I understand that Lowrey et al. discloses an internet-based vehicle-diagnostic system with a wireless appliance in electrical contact with an in-vehicle computer that

can report position date from a GPS device. The wireless appliance operates based upon a schema to select packets from the in-vehicle computer. These packets are transmitted to a host computer system for processing.

13. I understand that Lightener et al. discloses a wireless diagnostic system in communication with a plurality of vehicles. The wireless diagnostic system also comprises a host computer system, and data collectors in each of the vehicles. The data collector queries data from the ODB bus in the vehicle and sends the data over a wireless network. Data is retrieved from the vehicle periodically. Lightener et al. also notes: "[d]epending on the make and model of the vehicle, the data packet can contain hundreds of datum that describe, e.g.: i) basic properties of the power train (e.g., emission levels, fuel-System Status, engine temperature, Speed and odometer readings, anti-lock brake Status, RPMs, fuel and intake manifold pressure); and ii) manufacturer-specific information..." (Col. 6, lines 26-33).

14. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. fails to disclose the multi-vehicle compatible controller and downloading interface of the claimed vehicle tracking unit, as these claim recitations are interpreted by the Examiner.

15. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. fails to disclose

"said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles", as recited in independent Claim 1, for example.

16. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. discloses uploading schema to the wireless appliance to collect data packets from the vehicle.

17. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. discloses that the wireless appliance requires the technician to review processed results and upload new schema.

18. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. fails to disclose the multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles since it requires outside configuration to work with a vehicle.

19. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. fails to disclose the "downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device

code for use by said multi-vehicle compatible controller," as recited in independent Claim 1, for example.

20. It is my opinion that one of ordinary skill in the art would recognize that the claimed enabling data may comprise the vehicle device code or codes, an instruction to select a code or codes from among those already stored, or the data or sequence to allow the controller to generate the vehicle device code or codes.

21. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. fails to disclose the claimed enabling data. Rather, the schema of Lowrey et al. fails to meet the bounds of this claimed feature.

22. It is my opinion that Lightener et al. fails to make up for the deficiencies of Lowrey et al.

IV. Evidence of Secondary Considerations

23. I submit that the person of ordinary skill in the art would not find it obvious to selectively modify Lowrey et al. Instead, it is my opinion that such a selective modification or combination would only be motivated by improper hindsight reconstruction – here about twenty years of hindsight.

24. I submit that merits of the claimed invention extend to providing multi-vehicle compatibility, as described above. Accordingly, there exists evidence of secondary considerations of non-obviousness including:

a. The First Jury Verdict, page 9, provides that others accepted licenses under the patents "because of the merits of the claimed invention."

b. I also understand that Omega has received in excess of $70 million in licensing revenue, much of it from the '278 patent and the other asserted patents in the CalAmp litigation. The Second Jury Verdict adds another $4.5M to this amount.

c. The '278 patent is one of three patents asserted in the related litigation providing features for multi-vehicle compatibility as is important for the overall licensing program of the Patent Owner.

d. The First Jury Verdict, page 9, includes the Jury's determination that the accused products were "commercially successful due to the merits of the claimed invention rather than due to advertising, promotion, salesmanship, or features of the product other than those found in the claim." And the Jury determined that the asserted claims of the '278 patent were infringed by the accused CalAmp devices. (Exhibits 2-3, First Jury Verdict, Pages 5-6, Second Jury Verdict, Pages 4-5).

e. CalAmp's employees testified in the related litigation that the multi-vehicle compatibility provides for simplified installation in a vehicle and avoids the need for separated stock keeping units (SKUs). Hall

deposition, 40:25 – 41:2; and Hergesheimer deposition, 43:3-16).

f. CalAmp telemetry devices have enjoyed significant commercial success having sold over 917,223 units of the accused products.

g. The First Jury Verdict, on page 9, includes a finding that others copied the claimed invention.

h. The Court determined that "CalAmp was well aware of Omega's patents since at least 2010. Rather than take a license, and choosing not to design around Omega's patents, CalAmp elected to sell infringing products and continues to do so to this day. CalAmp's motivation to engage in this behavior is obvious: their customers wanted this technology, and CalAmp wanted to provide it." (Exhibit 6, Final Order, pg. 19).

i. The Accused Products in the CalAmp litigation were developed because of "customer need." (Hall deposition, 40:20-41:12; Hergesheimer deposition, 40:23-41:3.).

j. Further, the infringing CalAmp Products would have "limited value" if it were not for the multi-vehicle compatibility. (Hergesheimer deposition, 46:25-47:169.).

25. I hereby declare further that all statements made herein are of my own knowledge and are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful and false statements may jeopardize the validity of the application or any patent issued thereon.

Joseph C. McAlexander, III

August 21, 2021
Date

EXHIBIT 2

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
ORLANDO DIVISION

OMEGA PATENTS, LLC,

Plaintiff,

v. Case No: 6:13-cv-1950-Orl-40DAB

CALAMP CORP.,

Defendant.
_____/

VERDICT FORM

1. Do you find Omega has proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any of the asserted claims of Omega's asserted Patents?

✓ Yes (for Omega) _____No (for CalAmp)

If your answer to Question 1 is "No," proceed to Question 3. If your answer to Question 1 is "Yes," for any claim(s) Omega has proven by a preponderance of the evidence that any of the accused CalAmp devices infringed, indicate a finding of infringement by marking "Yes" in the corresponding space provided in Questions 2.A through 2.D. below; for any claim(s) Omega has failed to prove by a preponderance of the evidence that any of the accused CalAmp devices infringed, indicate a finding of non-infringement by marking "No" in the corresponding space provided in Questions 2.A through 2.D. below.

2.A. U.S. Patent No. 6,346,876 B1 ("the '876 patent")

Has Omega proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any of the following claims of the '876 patent?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☑ Yes ☐ No	☑ Yes ~~☑ No~~	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 3	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 4	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 5	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 12	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 14	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 16	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No

2.B. U.S. Patent No. 6,756,885 B1 ("the '885 patent")

Has Omega proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any of the following claims of the '885 patent?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 2	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 3	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 12	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 14	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No

2.C. U.S. Patent No. 7,671,727 B2 ("the '727 patent")

Has Omega proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any of the following claims of the '727 patent?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 10	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 11	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No

2.D. U.S. Patent No. 8,032,278 B2 ("the '278 patent")

Has Omega proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any of the following claims of the '278 patent?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 2	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 3	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 4	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 5	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 6	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 8	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 11	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No

U.S. Patent No. 8,032,278 B2 ("the '278 patent") continued from previous page

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 12	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No		
Claim 13	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 14	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 16	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 18	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 19	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 21	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No

After answering Questions 2.A. through 2.D., proceed to Question 3.

3. Has CalAmp proven by clear and convincing evidence that any claim of the asserted Patents is invalid?

_____ Yes (for CalAmp) ____✓____ No (for Omega)

4. If your answer to Question 3 is "No," proceed to Question 5. If your answer to Question 3 is "Yes," answer Question 4 below by indicating with an X any claim(s) you find invalid by clear and convincing evidence and indicate the reasons for invalidity, namely, identify which prior art references disclose the elements of the claim.

PATENT CLAIM	YES, INVALID	REFERENCES DISCLOSING THE ELEMENTS OF THE CLAIM
U.S. Patent No. 6,346,876		
Claim 1		
Claim 3		
Claim 4		
Claim 5		
Claim 12		
Claim 14		
Claim 16		
U.S. Patent No. 6,756,885		
Claim 1		
Claim 2		
Claim 3		
Claim 12		

PATENT CLAIM	YES, INVALID	REFERENCES DISCLOSING THE ELEMENTS OF THE CLAIM
U.S. Patent No. 6,756,885 (continued from previous page)		
Claim 14		
U.S. Patent No. 7,671,727		
Claim 1		
Claim 10		
Claim 11		
U.S. Patent No. 8,032,278		
Claim 1		
Claim 2		
Claim 3		
Claim 4		
Claim 5		
Claim 6		
Claim 8		
Claim 11		
Claim 12		
Claim 13		
Claim 14		
Claim 16		
Claim 18		
Claim 19		
Claim 21		

After answering Question 4, answer Question 5.

5. Which of the following factors that tend to indicate nonobviousness, if any, has been established by the evidence with respect to the claimed invention (write the word "yes" in the blank below to any question that you answer "yes" to):

YES	Were accused products covered by the claim commercially successful due to the merits of the claimed invention rather than due to advertising, promotion, salesmanship, or features of the product other than those found in the claim?
X	Was there long felt need for a solution to the problem facing the inventors, which was satisfied by the claimed invention?
X	Did others try, but fail, to solve the problem solved by the claimed invention?
YES	Did others copy the claimed invention?
X	Did the claimed invention achieve unexpectedly superior results over the closest prior art?
X	Did others in the field praise the claimed invention or express surprise at the making of the claimed invention?
YES	Did others accept licenses under patents because of the merits of the claimed invention?

If your answer to Question 1 is "Yes," answer Question 6.A. If your answer to Question 1 is "No," skip all remaining questions and proceed to sign and date this Verdict Form.

6.A. Has Omega proven by clear and convincing evidence that CalAmp acted despite an objectively high likelihood that its actions infringed a valid patent?

✓ Yes _____ No

If your answer to Question 6.A. is "Yes," proceed to Question 6.B. If your answer to Question 6.A. is "No," proceed to Question 7.

6.B. Has Omega proven by clear and convincing evidence that this objectively high likelihood of infringement was either known or so obvious that it should have been known to CalAmp?

✓ Yes _____ No

Proceed to Question 7.

7. What amount of damages, if any, do you find is adequate to compensate Omega for CalAmp's infringement of any claim found to be valid and not licensed?

$ 2,975,200

After answering Question 7, sign and date this Verdict Form.

SO SAY WE ALL THIS 24th DAY OF FEBRUARY, 2016.

JURY FOREPERSON

EXHIBIT 3

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
ORLANDO DIVISION

OMEGA PATENTS, LLC,

Plaintiff,

v. Case No: 6:13-cv-1950-0rl-40DCI

CALAMP CORP.,

Defendant.
_____/

VERDICT FORM

1. U.S. Patent No. 6,346,876 B1 ("the '876 patent")

1.A. It has been previously determined that CalAmp's customers infringe claims 1, 3, 4, 5, 14 and 16 of the '876 patent. Has Omega proven by a preponderance of the evidence that CalAmp induced its customers to infringe?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 3	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 4	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 5	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 14	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 16	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No

1.B. If you answered "Yes" to any part of Question 1.A. above, has Omega proven by a preponderance of the evidence that CalAmp's infringement was willful?

_____Yes _____ No

2. <u>U.S. Patent No. 6,756,885 B1 ("the '885 patent")</u>

2.A. Has Omega proven by a preponderance of the evidence that CalAmp's customers directly infringe any of the claims of the '885 patent by using any of the following accused products?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 2	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 3	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 12	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 14	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No

2.B. If your answer to any claim is "Yes," has Omega proven by a preponderance of the evidence that CalAmp induced its customers to infringe?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 2	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 3	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 12	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 14	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No

2.C. If you answered "Yes" to any part of Question 2.B. above, has Omega proven by a preponderance of the evidence that CalAmp's infringement was willful?

_____Yes _____ No

3. **U.S. Patent No. 7,671,727 B2 ("the '727 patent")**

3.A. It has previously been determined that CalAmp infringed Claim 1 of the '727 patent. Has Omega proven by a preponderance of the evidence that CalAmp's infringement was willful?

_____Yes ✓ No

4. **U.S. Patent No. 8,032,278 B2 ("the '278 patent")**

4.A. Has Omega proven by a preponderance of the evidence that CalAmp infringes any of the following claims of the '278 patent by making, using, selling, offering for sale, or importing into the United States any of the following accused products?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 2	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 3	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 4	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 5	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 6	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 8	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 11	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 12	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No		
Claim 13	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 14	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 16	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 18	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 19	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 21	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No

4.B. If you answered "Yes" to any part of Question 4.B. above, has Omega proven by a preponderance of the evidence that CalAmp's infringement was willful?

_____ Yes ✓ No

5. Infringement Damages

5.A. What sum of money has Omega proven by a preponderance of the evidence that it is entitled to recover as a reasonable royalty for CalAmp's infringement of the '727 patent, and any infringement by CalAmp of the '278, '885, and '876 patents that you found above? **Please write down both the total damages awarded (in dollars) you find is adequate to compensate Omega for any infringement of the asserted patents you have found by CalAmp, and the number of CalAmp's accused products that you have included in your damages calculation in the spaces provided below.**

Total damages awarded: $ 4,584,111

Number of accused products included in damages award: 917,223

5.B. Of the total number of accused products found to infringe and therefore included in the damage award (see question 5.A. above), how many accused products have been found to infringe each patent (for any patents found not infringed, please leave that line blank):

'876 patent: Ø

'885 patent: Ø

'727 patent: 1 unit

'278 patent: 917,222 unit

5.C. Please identify the per product royalty that would apply to each patent you found to infringe:

i. '876 patent $ Ø

ii. '885 patent $ Ø

iii. '727 patent $ 1.00

iv. '278 patent $ 5.00

After answering Question 5, sign and date this Verdict Form.

SO SAY WE ALL THIS 30 DAY OF September, 2019.

JURY FOREPERSON

EXHIBIT 4

Allen, Dyer, Doppelt + Gilchrist, PA
INTELLECTUAL PROPERTY LAW

Herbert L. Allen
Ava K. Doppelt
Brian R. Gilchrist
Christopher F. Regan
David L. Sigalow
Richard K. Warther
Michael W. Taylor
John F. Woodson II
Ryan T. Santurri
Robert H. Thornburg
Jack G. Abid
David S. Carus
Justin R. Sauer
Allison R. Imber
Matthew G. McKinney
Jaafar Choufani
Stephanie Vazquez
David Roncayolo

jabid@allendyer.com

March 5, 2021

VIA EMAIL ONLY MGARRED@STETINALAW.COM

Stetina, Brunda, Garred, & Brucker, PC
75 Enterprise
Suite 250
Aliso Viejo, California 92656

Re: ***Ex Parte Reexamination of U.S. Patent No. 8,032,278***
Application Serial Number 90/014,675

Dear Mr. Garred:

As you are aware, we represent the owner of the above noted '278 patent, Omega Patents, LLC. We reviewed your above noted second request for ex parte reexamination of the '278 patent based upon U.S. Patent No. 6,611,740 to Lowrey et al. We respectfully suggest that you update the Patent Office with further information regarding the "recently identified" nature of the prior art. In particular, we request that you correct the record regarding your long-standing knowledge of this reference.

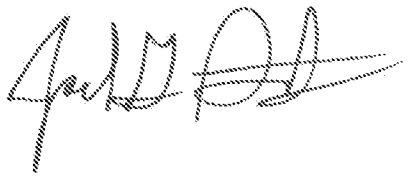
This is your second request for ex parte reexamination, with your first having been filed on December 16, 2019. And, of course, Innova's customer, CalAmp, directly filed three of its own serial reexamination requests on: (1) September 14, 2015; (2) October 28, 2016; and (3) May 24, 2019. The litigation sparking this series of reexamination requests was filed against CalAmp on December 20, 2013. All of the serially harassing reexamination activity has failed.

On pages 1-2 of your second request (fifth in the series), you state: "**[r]ecently**, additional prior art that was not previously considered by the United States Patent and Trademark Office ("USPTO") **has been identified** that is believed to raise a substantial new question of patentability."

This language is misleading. Indeed, seventeen Innova Electronics Corporation patents cite this same reference, and predate the present reexamination request and your first reexamination request. The "recently identified" Lowrey et al. patent **was cited in cases you personally prosecuted**, see, e.g., U.S. Patent Nos. 10,643,403 (filed September 30, 2015 and issued May 5, 2020); 10,640,060 (filed March 8, 2017

and issued May 5, 2020); 10,462,225 (filed August 25, 2017 and issued October 29, 2019); and 10,163,281 (filed January 12, 2017 and issued December 25, 2018).

Regards,



Jack G. Abid

EXHIBIT 5

LAW OFFICES
Stetina Brunda Garred & Brucker
A PROFESSIONAL CORPORATION
PATENT, TRADEMARK, COPYRIGHT AND UNFAIR COMPETITION CAUSES

75 ENTERPRISE, SUITE 250
ALISO VIEJO, CALIFORNIA 92656

KIT M. STETINA
BRUCE B. BRUNDA (ret.)
WILLIAM J. BRUCKER *
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March 11, 2021

Via Email Only
jabid@allendyer.com

Jack Abid, Esq.
Allen, Dyer, Doppelt, & Gilchrist PA
255 South Orange Avenue, Suite 1401
Orlando, FL 32801

RE: Ex Parte Reexamination of U.S. Patent No. 8,032,278
Application Serial Number 90/014,675

Dear Mr. Abid:

I am in receipt of your letter of March 5, 2021. I reviewed the part of the reexamination request you referred to and I do not understand why you find it misleading, nor do I think it is unclear in any way.

As you are aware, it is necessary to establish a substantial new question of patentability when filing an *ex parte* reexamination request. To this end, it is useful (and typical) to point out that the reference being relied upon is not of record at the Patent Office. This is because the question of whether the reference was already considered by the Patent Office in relation to patentability is central to the substantial new question inquiry. On the other hand, it is not necessary to provide an explanation of how or when the reference became known to the third-party requester.

In this instance, I volunteered, correctly, that additional prior art believed to raise a substantial new question of patentability had been identified *recently* in the form of the highly relevant Lowrey reference (U.S. Patent No. 6,611,740). The fact that the same Lowrey reference may have crossed my desk in a completely unrelated context at an earlier date does not change this fact. As best understood, your concern is that I was aware of the Lowrey reference at another time in another context. However, the reexamination request does not discuss my prior knowledge of the Lowrey reference in general, only the timing of identifying additional prior art believed to raise a substantial new question of patentability.

For the foregoing reasons, I do not find your accusation of misleading language to be well taken, and thus see no need to "correct the record" at the Patent Office.

Very truly yours,

STETINA BRUNDA GARRED & BRUCKER



Mark B. Garred

MBG/akl

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EXHIBIT 6

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
ORLANDO DIVISION

OMEGA PATENTS, LLC,

Plaintiff,

v. Case No: 6:13-cv-1950-Orl-40DCI

CALAMP CORP.,

Defendant.
_____/

ORDER

This cause is before the Court on the following:

1. Plaintiff's Motion for Entry of Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction (Doc. 148), filed March 9, 2016;
2. Plaintiff's Renewed Motion to Award Prejudgment Interest (Doc. 154) filed March 18, 2016;
3. Defendant's Response in Opposition to Plaintiff's Renewed Motion to Award Prejudgment Interest (Doc. 166), filed April 4, 2016;
4. Defendant's Opposition to Plaintiff's Motion for Entry of Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction (Docs. 169, 170), filed April 11, 2016;
5. Plaintiff's Notice of Filing Declarations (Doc. 187), filed April 28, 2016;
6. Defendant's Notice of Filing Responsive Declarations (Doc. 188), filed April 29, 2016;

7. Defendant's Notice of Supplemental Authority regarding Response in Opposition to Plaintiff's Motion for Entry of Final Judgment (Doc. 192), filed May 17, 2016;
8. Defendant's Notice of Grant of Reexamination of '885 Patent (Doc. 193), filed June 6, 2016;
9. Plaintiff's Notice of Supplemental Authority (Doc. 194), filed June 13, 2016;
10. Defendant's Response to Plaintiff's Notice of Supplemental Authority (Doc. 195), filed June 14, 2016;
11. Plaintiff's Response to Defendant's Notice of Supplemental Authority at Docket Number 192 (Doc. 198), filed July 19, 2016;
12. Defendant's Reply to Plaintiff's Response to Notice of Supplemental Authority (Doc. 199), filed July 22, 2016;
13. Defendant's Notice of Grant of Supplemental Authority (Patent Office Action) (Docs. 200, 201), filed August 30, 2016; and
14. Defendant's Notice of Supplemental Authority (Patent Office Action) (Doc. 202), filed September 19, 2016.

Upon due consideration, and after reviewing the pleadings and the transcript of the trial (Doc. 178–184) and the transcript of the post-trial motion's hearing (Doc. 196), Plaintiff's Motions for Entry of Final Judgement, Enhanced Damages, and Reasonable Attorneys' Fees are granted, and Plaintiff's motions for Permanent Injunction is denied.

I. BACKGROUND

Omega Patents, LLC ("Omega") brought the instant action against CalAmp Corp. ("CalAmp") and contends that CalAmp infringed the claims of U.S. Patent No. 6,346,876

("the '876 Patent")[1], U.S. Patent No. 6,756,885 ("the '885 Patent")[2], U.S. Patent No. 7,671,727 ("the '727 Patent")[3], and U.S. Patent No. 8,032,278 ("the '278 Patent")[4] (collectively, the "patents-in-suit").[5] (Doc. 1). The trial of this matter commenced on February 16, 2016, and concluding on February 24, 2016, (Doc. 178–184), with the jury returning a verdict in favor of Omega in which they found that all of Omega's asserted claims were valid and had been infringed upon by CalAmp's accused devices: the LMU 3000, LMU 3030, LMU 3050, the V-Pod and the V-Pod 2. (Doc. 144, p. 1–6). The jury rejected the Defendant's invalidity contentions and made three findings for Plaintiff on secondary considerations indicating nonobviousness. (*Id.* at pp. 7–9). Finally, the jury found Plaintiff had proven by clear and convincing evidence that CalAmp acted despite an objectively high likelihood that its actions infringed a valid patent and that this high likelihood of infringement was either known or so obvious that it should have been known to CalAmp. (*Id.* at pp. 9–10). The jury awarded damages in the amount of $2,975.200. (*Id.* at p. 10).

Omega contends the Court should award reasonable attorneys' fees pursuant to 35 U.S.C. § 285, enhanced damages pursuant to § 284, and a permanent injunction pursuant to § 283. (Doc. 148). CalAmp opposes the relief requested by Omega. (Doc. 169). The Court held oral argument on the post-trial motions on May 2, 2016. (Doc. 196).

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[1] The jury found infringement of claims 1, 3, 4, 5, 12, 14, and 16. (Doc. 144, p. 2).
[2] The jury found infringement of claims 1, 2, 3, 12, and 14. (*Id.* at p. 3).
[3] The jury found infringement of claims 1, 10, and 11. (*Id.* at p. 4).
[4] The jury found infringement of claims 1–6, 8, 11–16, 18–19, and 21. (*Id.* at pp. 5–6).
[5] The patents-in-suite relate to control systems for vehicles with a "data communication bus." The term "data communication bus" has been previously construed by the Court to mean "wired connection for communication of digital messages among vehicle devises, with each message including one or more device addresses." (Doc. 50, p. 25).

The parties subsequently submitted numerous pleadings consisting of supplemental authority and notices of *ex parte* reexamination by The Patent Office of the '278 patent, the '885 patent, and the '876 patent. (Docs. 198–202).

II. STANDARD

A. Enhanced Damages

When this litigation proceeded to trial, the issue of enhanced damages was governed by the two-step inquiry announced by the Federal Circuit in *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (*en banc*). Following oral argument on Omega's motion for enhanced damages, the United States Supreme Court decided *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923 (2016). The Court in *Halo* rejects the *Seagate* two-part test for determining when a district court my increase damages pursuant to 35 U.S.C. § 284 as being inconsistent with the plain language of the statute. *Halo*, 136 S. Ct. at 1928. Following a historical exegesis of enhanced damages under the Patent Act, the Court concluded that "although there is 'no precise rule or formula' for awarding damages under § 284, a district court's 'discretion should be exercised in light of the considerations' underlying the grant of that discretion." *Halo,* 136 S. Ct. at 1932 (quoting *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1756 (2014)).

The Court in *Halo* remarked that enhanced damages under patent law "should generally be reserved for egregious cases typified by willful misconduct." *Halo*, 136 S. Ct. at 1934. The Court observed that "[t]he sort of conduct warranting enhanced damages has been variously described in our cases as willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or—indeed—characteristic of a pirate." *Halo,*

136 S. Ct. at 1932. The Court rejected the heightened standard of proof provided for by the Federal Circuit in *Seagate* in favor of a preponderance of the evidence standard. *Halo,* 136 S. Ct. at 1934. The type of culpability that supports an award of enhanced damages is "measured against the knowledge of the actor at the time of the challenged conduct." *Halo,* 136 S. Ct. at 1933.[6] Once a jury determines that an infringer "is guilty of conduct upon which increased damages may be based [,] … the court then determines, exercising its sound discretion, whether, and to what extent, to increase the damages award given the totality of the circumstances." *Jurgens v. CBK, Ltd.*, 80 F.3d 1566, 1570 (Fed. Cir. 1996). While a finding of willful infringement does not mandate the imposition of enhanced damages, once the finding is made "the court must explain its reasons for declining to award enhanced damages." *Carnegie Mellon Univ. v. Marvell Tech. Group, Ltd.*, No. CIV.A. 09-290, 2014 WL 1320154, at *9 (W.D. Pa. Mar. 31, 2014), *rev'd in part on other grounds*, 807 F.3d 1283 (Fed. Cir. 2015).

B. Attorney's Fees

The Supreme Court in *Octane Fitness* rejected the "more rigid and mechanical formulation" for determining when the district court may award reasonable attorney fees to the prevailing party in favor of the plain statutory text of § 285, which provides "[t]he court in exceptional cases may award reasonable attorney fees to the prevailing party." 35 U.S.C. § 285; *Octane Fitness*, 134 S. Ct. at 1755. An exceptional case is "simply one that stands out from others with respect to the substantive strength of a party's litigating

[6] The Court in *Halo* criticized, in pertinent part, the second prong of the *Seagate* test which allowed an infringer to escape enhanced damages by mustering a defense of invalidity or noninfringement at trial "even if [the infringer] did not act on the basis of the defense or was even aware of it." *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1933 (2016).

position (considering both the governing law and the facts of the case) or the unreasonable manner in which the case was litigated." *Octane Fitness*, 134 S. Ct. at 1756. The district court applies the preponderance of the evidence standard and considers the totality of the circumstances. The district court may consider a number of factors in determining whether to award fees, including: (1) whether the infringer deliberately copied the invention; (2) whether the infringer had a good faith basis for believing it did not infringe or that the patent was invalid; (3) the closeness of the case; (4) conduct of the part in litigation; (5) defendant's relative size and financial condition; (6) the duration of the infringement; (7) remedial action by the defendant; (8) defendant's motivation for harm, and (9) whether defendant attempted to conceal its misconduct. *Read Corp. v. Portec, Inc.,* 970 F.2d 816, 827 (Fed. Cir. 1992).[7]

C. Permanent Injunction

The Supreme Court in *eBay Inc. v. MercExchange, L.L.C.*, 126 S. Ct. 1837, 1839 (2006), held that to obtain an injunction a party "must demonstrate: (1) that is has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest wound not be disserved by a permanent injunction." The Federal Circuit subsequently held that *eBay* eliminates a presumption of irreparable injury to the patent holder after a judgment of infringement and of no invalidity is returned. *Robert Bosch LLC v. Pylon Mfg. Corp.,* 659 F.3d 1142, 1149 (Fed. Cir. 2011). Moreover, there must be a

[7] The *Read* factors are equally applicable to the assessment of enhanced damages.

causal nexus between the irreparable injury and the patent infringement. *Apple Inc. v. Samsung Elecs. Co.*, 735 F.3d 1352, 1360 (Fed. Cir. 2013).

III. DISCUSSION

Mr. Flick, the inventor of the four patents at issue, met with representatives of CalAmp, including Mr. Gallin Chen, in 2009 at a trade show to discuss Omega's belief that CalAmp was infringing certain patents. (Doc. 179, 76:10-18). During this initial meeting, Mr. Chen expressed his view that the Omega patents were invalid, but he nonetheless requested a draft license agreement. (*Id.* at 78:1-11). Omega complied and sent CalAmp a license agreement that CalAmp rejected shortly thereafter, resulting in Omega filing suit against CalAmp on December 15, 2009.[8] (*Id.*). Once litigation had commenced, Mr. Chen agreed to meet with Mr. Flick again at a trade show scheduled for January 2010. (*Id.* at 81:14-18). During the ensuing conversation, Mr. Chen represented to Omega that CalAmp did not program their products and any alleged infringement was caused by the end-user who programs the CalAmp devices. (*Id.* at 81:24– 82:13). Based upon this representation Mr. Flick stayed the litigation against CalAmp and sued two end users: Numerex and Sky Patrol. (*Id.*). Numerex quickly settled with Omega and entered into a licensing agreement. (*Id.* at 82:14-23). Sky Patrol, however, revealed that, contrary to Mr. Chen's representation, CalAmp was responsible for programing their offending devices.[9] (*Id.* at 83:11–84:12). CalAmp subsequently settled with Omega and agreed to pay a royalty. (*Id.* at 84:13-21; Pl.'s Ex. 45).

---

[8] The lawsuit filed by Omega in 2009 pertained to patents other than those at issue in the instant litigation.

[9] The deposition of CalAmp engineer, Peter Hergesheimer, was played at trial, and Mr. Hergesheimer acknowledged that CalAmp programs LMUs for approximately 75% of their customers, contradicting Mr. Chen's claim that CalAmp sold a black box. Mr.

Against this backdrop, CalAmp introduced the accused devices in late 2011 or early 2012. (Doc. 182, 53:2-5). Prior to introducing the accused products, CalAmp's counsel, Mr. David Bailey, reviewed a number of patents held by the Plaintiff, including the '885 and '727 patents at issue in this litigation. (Pl.'s Ex. 39). At the same time counsel for Omega and for CalAmp engaged in discussions concerning Omega's "extensive patent portfolio" in the area of databus applications.[10] (Pl.'s Ex. 34). It is, therefore, beyond dispute that CalAmp was fully aware of the Omega patents prior to introducing the accused products into the market.

Mr. Chen admitted on cross-examination that the LMUs and V-Pod and V-Pod2 were introduced as a direct result of consumer demand. (Doc. 182, 142:11-24). Mr. Chen explained that the LMUs connect to the vehicle data bus and read data from the bus. (*Id.* at 54:8-14). According to Mr. Chen, the LMU has a transmitter and a receiver, can read data from the vehicle data bus, can query a vehicle device for data, and can store the data received in response to the query. (*Id.* at 129:1-21). The '727 patent held by Omega, for example, claims a speed exceeded notification device for a vehicle comprising a "vehicle data communications bus" and "at least one vehicle device generating data related to vehicle speed on the" bus which determines when a vehicle's speed has exceeded a set threshold. (Joint Ex. 4, column 7, lines 4-17).

In an attempt to distinguish the LMU devices from the '727 patent, Mr. Chen testified that the LMU speed data is derived from the GPS module and not from the vehicle

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Hergesheimer also testified that software is loaded on the LMU online, because that is more cost effective than loading it at the time of manufacture.

[10] CalAmp engineer, Peter Hergesheimer, testified at trial via deposition that he did not design around the Omega patents.

bus.[11] (Doc. 182, 133:13-21). He added that the LMU has the capacity to read speed from the bus, but CalAmp does not allow this because speed data generated from GPS is more accurate. (*Id.*). However, Mr. Jerrery Eidberger, a CalAmp field application engineer, testified via deposition that a substantial percentage of customers do in fact have the LMU programmed by CalAmp to read the speed from the bus. Additionally, CalAmp responded to Omega's Frist Set of Interrogatories, wherein Omega asks CalAmp to "identify all customers for whom CalAmp has loaded scripts for geofencing or speed alerts into an Accused Product" by providing a long list of customers for whom CalAmp has loaded scripts related to speed alerts, noting that "some scripts do not cause a speed exceeded notification." (Pl.'s Ex. 16). CalAmp's acknowledgement that some scripts do not cause a speed exceeded notification means that other scripts do provide the speed exceeded notification from the vehicle bus as opposed to the GPS. Mr. Chen's testimony wherein he flatly denies the LMU reads vehicle speed from the bus is clearly contradicted by CalAmp's interrogatory answers.

Mr. Andrews, CalAmp's retained expert, echoed this misrepresentation when he testified that the CalAmp devices obtain speed data from the internal GPS sensor as opposed to obtaining speed from the bus. (Doc. 182, 248:3-5; 249:1-5). On cross-examination, Mr. Andrews admitted that if the LMU is programmed to read speed from the data bus and make the threshold determination that the speed has been exceeded, the accused device infringes the '727 patent. (Doc. 183, 172:19-22). Either Mr. Andrews ignored CalAmp's answers to Omega's interrogatories in reaching his opinion that the

[11] The '727 patent indicates that it is an object of the invention "to provide a speed exceeded notification device which may be readily used in a vehicle including a data communications bus and related methods." (Joint Ex. 4, column 2, lines 38-40).

accused products do not infringe the '727 patent because speed is derived via GPS, or CalAmp withheld this information from its expert in order to obtain a non-infringement opinion. Either way, the testimony of Mr. Chen and Mr. Andrews provide substantial support for the jury's finding of willful infringement of the '727 patent, and this Court concurs in the jury's finding of willful infringement.

Further indicia of willful infringement by CalAmp is found in an e-mail sent by Mr. Chen to outside patent counsel, Mr. David Bailey[12], and senior vice president for corporate development, Mr. Garo Sarkissian. (Doc. 182, 112:13-19). On July 30, 2013, eight months after Omega instituted this lawsuit, Mr. Chen wrote to Messrs, Bailey, and Sarkissian and asked them to look at the '278 patent. (Pl.'s Ex. 48). Referring to claim 13 of the '278 patent, Mr. Chen wrote: "13 may relate to how we program a unit at the factory so it may be harder to avoid." (*Id.*). The '278 patent has as an object of the invention to "provide a multi-vehicle compatible tracking unit which may be used to control operable vehicle devices, and/or read information therefrom via the vehicle data communications bus." (Joint Ex. 5, column 2, lines 46-49). Clearly, Mr. Chen was concerned as late as July 30, 2013, that the accused devices infringe claim 13 of the '278 patent, as the jury ultimately found. His admission in this e-mail that the units are programed at the CalAmp factory is further evidence that his trial testimony describing the LMU as a black box, programmed by the end-user, was false.

In the same e-mail, Mr. Chen predicts what will ultimately become a defense theory advanced at trial, when he writes: the '727 patent "can be avoided by using GPS speed,

[12] Mr. Bailey is an attorney practicing in the same firm as trial defense counsel. (Doc. 182, 144:20-25).

not vehicle bus received speed, for speeding alerts." (Joint Ex. 5). It is difficult to ascribe a good faith basis for persisting at trial on the theory that the LMU determines speed from the GPS, as opposed to obtaining the data from the bus, when CalAmp's supplemental response to Omega's interrogatory, in which CalAmp admits to loading scripts for speed exceeded notification, was filed March 6, 2015—more two years after Mr. Chen suggested to his counsel and his colleague that using GPS speed will allow CalAmp to avoid the '727 patent. This email is consistent with an attempt to create a plausible defense at trial, perhaps in anticipation of the then-available *Seagate* enhanced damages analysis.[13] That Mr. Chen continued to advance the GPS theory at trial and in view of CalAmp's interrogatory answer demonstrates willful copying of Omega's invention.

In an attempt to satisfy the *Seagate* two-part test at trial, Mr. Chen testified that prior to launching the accused devices, CalAmp investigated the vehicle data bus market. (Doc. 182, 55:21-24). Mr. Sarkissian directed Mr. Chen to search for prior art, resulting in Mr. Chen reviewing over 300 patents. (*Id.* at 57:12–58:2). Mr. Chen also stated that in late 2010, Mr. Sarkissian, Mr. Steven Moran (CalAmp's general counsel), and he had received verbal opinions from Mr. Bailey that the accused products did not infringe existing patents. (*Id.* at 114:7-25; 117:7-12). Mr. Chen stated that he did not request Mr. Bailey to memorialize these oral opinions in writing until after the lawsuit was commenced by Omega. (*Id.* at 145:1-3). The defense marked for identification exhibits 71–74, which are opinion letters written by Mr. Baily as to each patent-in-suit, and each opinion letter is

[13] The Supreme Court in *Halo* disapproved of the *Seagate* test in part because it allowed an infringer to "escape any comeuppance under § 284 solely on the strength of his attorney's ingenuity." *Halo*, 136 S. Ct. at 1933. Hence, opinion letters issued after-the-fact shed little light upon the infringer's culpability which must be "measured against the knowledge of the actor *at the time* of the challenged conduct." *Id.* [emphasis added].

dated June 27, 2014.[14] (Def.'s Exs. 71–74). However, it is curious—assuming Mr. Bailey had vetted the accused products against existing patents back in 2010—that in July 2013 Mr. Chen highlighted the difficulty of avoiding claim 13 of the '278 patent and suggested that the '727 patent can be avoided by focusing upon GPS speed determination. If, in fact, counsel had vetted the accused devices and the Omega patents three years earlier, there is no reason for Mr. Chen to suggest a noninfringement theory to his counsel, nor is there any reason for Mr. Chen to be concerned over claim 13 of the '278 patent. The Court does not find the testimony of Mr. Chen or of Mr. Bailey credible on the issue of whether counsel had rendered legal opinions prior to the launch of the accused products in which he opined the accused products do not offend any patent held by Omega. Mr. Chen's credibility is undermined by other evidence presented at trial[15], and it is incomprehensible that counsel would refrain from issuing a written opinion of noninfringement or invalidity to his client at or near the time that CalAmp launched the accused products. No reasonable explanation for this highly unusual practice was offered by CalAmp or Mr. Bailey.

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[14] The Court sustained Omega's objection to the admissibility of Mr. Bailey's opinion letters on the grounds that the letters—offered during Mr. Chen's testimony—constitute hearsay, and the letters confer expert testimony which was not properly disclosed by the Defense. However, the Court has considered the four opinion letters for purposes of the enhanced damages analysis. The Court is unaware of the substance of the verbal opinions allegedly offered by Mr. Bailey in 2010 prior to the launch of the accused products.

[15] Mr. Chen testified via deposition that he removed information from the CalAmp website regarding the LMU devices to make it more difficult for Omega to identify infringement. (Pl.'s Ex. 48) ("We don't want to make it easy for Omega to build their infringement case by just looking at the datasheets on our website. . . . the bigger hole is LMU 3000; it's launched, mature and broadly integrated by multiple partners. We can bury (i.e. omit) the LMU3030 for now on open website.").

The Court next considers whether this was a "close case" and whether CalAmp held a good faith belief the patents were not infringed or were invalid. CalAmp and their expert, Mr. Andrews, note that the Omega patents require the performance of a control function. (Doc. 182, p. 177:7-15; Doc. 195, p. 3). At trial Mr. Andrews defined "control function" as "a message on the bus that is going to control a device exhibiting a physical change in the device or the system." (Doc. 182, 177:7-15). The notion that control function envisions a physical change is critical to the Defendant's noninfringement arguments. Based upon the Court's review of Mr. Andrew's initial expert report, (Def.'s Ex. 38), this definition of control function does not appear in his original expert report. Mr. Andrews acknowledged on cross-examination that he did not apply the physical change qualifier to control function in his deposition. (Doc. 183, 103:10-14). Mr. Andrews explained that he had misspoken in his deposition when he failed to describe control function as requiring a physical change in the device or the system. (*Id.*). Mr. Andrews did, however, include in his rebuttal report the definition of control function as having the ability to enable a physical change in a device of the system; for example, locking a door, starting the engine, or turning on a light." (Def.'s Ex. 47, pp. 11–12). The crux of the non-infringement defense is that the LMU merely sends a "query for data" and does not control a vehicle device. (Doc. 182, p. 177:20-22). Because the LMU does not control a vehicle device, Mr. Andrews argues the accused products cannot satisfy the multi-vehicle compatible controller claim in the patents. (*Id.* at 238:9-12; 238:25–239:6; 239:14–240:6). Accordingly, Mr. Andrews' definition of control function as mandating a physical change precludes one from finding for Plaintiff Omega.

In order for Mr. Andrews' non-infringement argument to prevail, one must accept his opinion that the LMU is a passive device that uses the bus to request and receive data, but which does not "perform one or more control functions" with respect to the vehicle device. (Def.'s Ex. 47, p. 12; Doc. 182, 240:9-11). The difficulty lies in finding a basis for Mr. Andrews' interpretation of "control function." The Court construed the claim term "controller" to mean "electronic circuitry that performs one or more control functions." (Doc. 50, p. 24). The claim term "multi-vehicle compatible controller" was construed by the Court to mean "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle." (*Id.*). The Court did not construe the term control function. CalAmp urged the Court to construe "function" as "[a]n operation of a vehicle device, such as remote starting the engine, remotely unlocking the vehicle doors, or changing the mode of a security system between armed and disarmed." (*Id.* at 18). But the Court observed: "The patent states the invention may be embodied in many different forms and should not be construed as limited to the illustrated embodiments set forth herein." (*Id.* at 18) (internal quotation marks and citations omitted). Accordingly, Mr. Andrews' interpretation of "control function" is not based upon the Court's claim construction. Similarly, nothing in any specification of the four patents-in-suit support Mr. Andrews' definition of "control function." (Joint Ex. 1-4; Doc. 183, 117:8-11; 118:1-6).

Mr. Andrews acknowledged that the microprocessor in the LMUs and the V-Pods sends a signal along the bus to the ECU and requests a response. (Doc. 183, 114:17–115:6). Omega's counsel engaged Mr. Andrews in the following colloquy:

> Q: Let's say the ECU responds with the device code signal—that would be controlling the ECU, wouldn't it?
>
> A: You're asking it for information. It's providing it back, yes.

Q: So that's a yes?

A: Okay.

(*Id.* at 118:9-24)

Q: And would you also agree with me … that sending a signal and getting a response could be a control function?

A: Yes.

(*Id.* at 120:5-20)

Mr. Andrews admits that when the LMU seeks information from the ECU, the ECU must respond via the bus; however, he contends this is not a control function. (*Id.* at 143:1-6). Mr. Andrews argues that "one with ordinary skill in the art, in the automotive industry in telematics, would understand the difference between a command and a query." (*Id.* at 116:7-10). It is Mr. Andrews' contention that a command—or as he would call it a query—by the LMU that produces a mandatory response by the ECU does not meet the definition of controller and control function. The Defendant's attempt to cast a mandatory response to a query as a passive act that falls short of a control function is unsupported by the record and was conspicuously absent from Mr. Andrews' initial expert report. The emergence of this opinion late in the litigation is highly suspect, particularly when one considers that Mr. Andrews' also opined that the LMU cannot infringe the '727 patent because the LMU only generates speed data from the GPS—which is clearly contradicted by CalAmp's response to Omega's interrogatories.

Mr. Andrews and counsel for CalAmp presented other non-infringement arguments at trial. However, the Court finds that these additional grounds—all of which were rejected by the jury—do not, giving the totality of the circumstances, mitigate against an award of enhanced damages and reasonable attorneys' fees. For example, Mr.

Andrews took issue with whether signals were stored on the accused devices as required by the '885 patent. (Doc. 183, 122:6-9). However, on cross-examination, Mr. Andrews agreed that the LMU sends out signals and the ECU sends a response, "[a]nd those signals are stored on the controller." (*Id.* at 123:7–124:9). Mr. Andrews admits the signals are stored on the LMU until the device is unplugged and re-plugged at which time it starts over. (*Id.* at 125:5-9). In fact, Mr. Andrews agrees the LMU is intended to be used in a manner that would store the CAN data and can be used in multiple vehicles. (*Id.* at 162:6-13).

CalAmp also presented invalidity defenses by identifying prior art that, when considered with SAE standards, rendered the patents obvious. In supplemental filings by the parties, the Court has been made aware that CalAmp sought *ex parte* reexamination of three of the patents-in-issue. The United States Patent and Trademark Office ("USPTO") has reexamined the '278 patent[16], (Doc. 192); the '885 patent[17], (Doc. 193), and the '876 patent[18], (Doc. 201). The USPTO rejected the pertinent claims of these three patents. While the USPTO issued Office Actions in *Ex Parte* Reexamination of the '278, '885, and '876 patents and rejected the relevant claims of these patents, the finding by the USPTO does not have preclusive effect as to the verdict rendered by the jury in the instant litigation unless the final USPTO decision is affirmed by the Federal Circuit before the jury's verdict become final. *Fresenius USA, Inc. v. Baxter Inter., Inc.*, 721 F.3d 1330,

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[16] Omega's response, including declarations from Mr. Suman, (Doc. 198-2), whose patent is being considered by the examiner as prior art, and Mr. McAlexander, (Doc. 198-3), demonstrates that the examination of '278 remains in a state of flux. (Doc. 198).

[17] The USPTO rejected every claim of the '885 patent on anticipation and obviousness grounds. (Doc. 202, p. 1).

[18] The USPTO rejected every claim of the '876 patent on anticipation and obviousness grounds. (Doc. 201, p. 2).

1346 (Fed. Cri. 2017). Accordingly, the Court is not bound by the examiner's non-final conclusions when determining whether the jury's verdict is supported by substantial evidence.

The Court recognizes that CalAmp does not suggest in their notices of supplemental authority that the non-final action of the PTO is outcome determinative. Rather, CalAmp cites to the examiner's findings to support the reasonableness of their reliance upon invalidity as a defense. The Court rejects CalAmp's position for a number of reasons. CalAmp's expert, Mr. Andrews, combined certain prior art, such as the Braitberg '497 patent, (Def. Ex. 10), with the Society of Automotive Engineers ("SAE") standard J1978, to predict the Omega '876 patent. (Doc. 182, 173:14–175:23; 178:8-15; 180:22–181:19). Mr. Andrews testified that "one of ordinary skill in the art [would] look to J1978 to determine how to connect the bus." (*Id.* at 184:13–18). However, Mr. Andrews, despite numerous questions posed on cross-examination, failed to articulate the motive for one of ordinary skill in the art to combine these references.[19] The best Mr. Andrews could do in suggesting a motive to combine J1978 with Braitberg is that scan tools were being used at the relevant time; hence, one would know to combine SAE J1978 with Braitberg to make a device multi-vehicle compatible.[20] (Doc. 183, 149:21–150:3). Mr. Andrews applied the Braitberg reference to the '876 and '885 patents, (Doc. 182, p. 198:1-

[19] "A party seeking to invalidate a patent on the basis of obviousness must demonstrate by clear and convincing evidence that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so." *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1360 (Fed. Cir. 2012) (internal quotation marks omitted).

[20] Mr. Andrews admits that Braitberg does not provide multiple vehicle compatibility, a claim that is necessary to invalidate the Omega patents, so he adds SAE J1978. (Doc. 183, p. 130:6-10). Interestingly, Mr. Chen testified he was unware of J1978.

20), and he applied J1978 to all four patents-in-suit. (*Id.* 250:1–270:19). The motive to combine prior art is critical to CalAmp's invalidity defense, because Mr. Andrews could not find prior art that had all of the claims that Mr. Flick has in his patents. (*Id.* at 132:17–133:7). Mr. Andrews failed to provide more than a conclusory opinion that one of ordinary skill in the art at the relevant time would have known to look to SAE J1978 in combination with the various prior art references. In this regard, Mr. Andrews' fails to assist the Defendant in carrying its burden of proof on invalidity.

In addition, the Court in *Halo* has eliminated the ability of an accused infringer to posit reasonable invalidity defenses which were not relied upon at the time the accused products were introduced into the market. *Halo*, 136 S. Ct. at 1933. Under *Seagate*, "the ability of the infringer to muster a reasonable (even though unsuccessful) defense at the infringement trial" was dispositive of the issue of enhanced damages. *Id.* Post-*Halo*, however, "culpability is generally measured against the knowledge of the actor at the time of the challenged conduct." *Id.* There is no indication in the record that Mr. Andrews provided CalAmp his opinion on invalidity before the accused products went into production in 2011. While the opinion letters issued by Mr. Bailey as to the '885 patent refer to SAE J1978, J1979, (Def.'s Ex. 73), this letter was written in June 2014 long after infringement had begun. Thus, there is no record evidence that CalAmp had knowledge of the invalidity defense derived from the combination of prior art and SAE standards at the time of the challenged conduct.[21] Since culpability is measured against the infringer's

[21] In fact, Mr. Chen filed for patent US 2010/0158211on December 21, 2011, claiming "[s]ystems and methods in accordance with embodiments of the invention continuously collect information from vehicle devices via a vehicle data bus, store information in a database, and retrieve information from the database in response to requests from

knowledge at the time of the challenged conduct, the after-the-fact invalidity defense is of little merit in assessing enhanced damages.[22]

The next *Read* factor directs the Court to consider the Defendant's size and financial condition. According to Omega's expert, Mr. Christian Tregillis, "CalAmp has sold over 245,000 units of the Accused Products, for over $21.5 million from April 2011 through November 2014," (Pl.'s Ex. 65, p. 37), "earning over $4.1 million in gross profits." (Pl.'s Ex. 65, p. 47). CalAmp is a publicly-traded corporation with over $75 million dollars in earnings last year. (Pl.'s Ex. 65). While CalAmp argues that the accused products are low-margin products sold in an extremely competitive market, this misses the point. The overall financial health of the infringer is evaluated—not the net profit generated by the offending conduct—to "ensure that enhanced damages would not prejudice defendant's non-infringing business." *Powell v. Home Depot U.S.A., Inc.*, 715 F. Supp. 2d 1285, 1298 (S.D. Fla. May 28, 2010). The Defendant has the financial wherewithal to endure the sanction of enhanced damages and an award of reasonable attorneys' fees.

A closely related factor for the Court to consider is the duration of CalAmp's conduct. As previously discussed, CalAmp was well aware of Omega's patents since at least 2010. Rather than take a license, and choosing not to design around Omega's patents, CalAmp elected to sell infringing products and continues to do so to this day. CalAmp's motivation to engage in this behavior is obvious: their customers wanted this technology, and CalAmp wanted to provide it. Moreover, as previously discussed,

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remote devices." (Pl.'s Ex. 14, Abstract). The patent issued June 21, 2012, and Mr. Chen did not disclose the prior art relied upon to invalidate Omega's similar patents.

[22] Assuming CalAmp had knowledge of the invalidity defense at the relevant time, the Court would not reach a different conclusion, since the motive to combine the prior art with the SAE standards is deficient.

CalAmp attempted to conceal its infringement by misrepresenting to Omega that it only sold black boxes which were programmed by customers and by removing information from the CalAmp website to make discovery of infringement more difficult. These additional factors all weigh in favor of an award of enhanced damages and reasonable attorneys' fees.

Based upon the foregoing, the Court finds CalAmp willfully infringed the Omega patents-in-suit, further finding that the jury's finding of willful infringement is supported by substantial evidence. The Court independently reviewed the record evidence and finds an award of enhanced damages of threefold the actual damages and an award of reasonable attorneys' fees is supported by the evidence.[23]

The Court turns now to Omega's request for a permanent injunction. Omega quotes Chief Justice Robert's concurring opinion in *eBay* wherein he remarks that from "at least the early 19th century, courts have granted injunctive relief upon a finding of infringement in the vast majority of patent cases." *eBay*, 126 S. Ct. at 1841. However, Justice Thomas speaking for the majority clarified that "the decision whether to grant or deny injunctive relief rests within the equitable discretion of the district courts, and that such discretion must be exercised consistent with traditional principles of equity, in patent disputes no less than in other cases governed by such standards." *Id.* As Justice Kennedy elaborates in his concurrence, "trial courts should bear in mind that in many instances the nature of the patent being enforced and the economic function of the patent holder

[23] The Court notes that even if the PTO's non-final action rejecting the relevant claims of the '885 and '876 patents are affirmed by the Federal Circuit, enhanced damages and reasonable attorneys' fees are appropriate for the willful infringement of the '727 and '278 patents—assuming the '278 patent survives reexamination.

present considerations quite unlike earlier cases." *Id.* at 1842. Justice Kennedy cautions trial courts to use care in issuing permanent injunctions in the context of patent holders who primarily employ their patent to obtain licensing fees. *Id.* "When a patented invention is but a small component of the product the companies seek to produce and the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for infringement and an injunction many not serve the public interest." *Id.*

Mr. Flick is a patent holder who presently generates revenue by licensing his patents; he no longer manufactures products. While Omega argues that it has maintained a restrictive licensing program of the patents-in-suit and has selectively licensed only a limited number of entities in the marketplace, (Doc. 148, p. 17), it is equally true that Omega was willing to license its patents to CalAmp. While Mr. Flick testified that Omega requires most licensees to transfer rights of improvements to Omega in order to strengthen its patents, it is clear that Omega does not require every licensee to agree to this term. In fact, the License Agreement entered into between Omega and CalAmp in relation to the products sold to SKYPATROL does not provide for assignment of improvements to Omega. (Pl.'s Ex. 88).

While cognizant of Omega's contention that a compulsory licensing agreement does not make Omega whole, and recognizing the Court need not balance the hardships in cases of willful infringement[24], the Court finds that monetary damages are adequate to compensate Omega for the injury sustained by CalAmp's infringement. Moreover, as

[24] *United States v. Marine Shale Processors*, 81 F.3d 1329, 1358 (5th Cir. 1996); *see also Windsurfing Int'l v. AMF, Inc.*, 782 F.2d 995, 1003 (Fed. Cir. 1986).

indicated by the declaration of Mr. Michael Zachan, CalAmp's Senior Vice President, a number of public safety, local government, and utility providers would be placed at a considerable disadvantage in the execution of their important duties if a permanent injunction issues. The Court agrees with Omega that the logistic and financial turmoil that befalls CalAmp should an injunction be ordered is of their own design. However, the collateral impact upon important public safety functions weighs against a permanent injunction.

For the foregoing reasons, the Court denies Omega's request for a permanent injunction, finding that the payment of customary licensing fees to Omega is adequate to protect the interests of Omega.

IV. CONCLUSION

For the aforementioned reasons, it is **ORDERED AND ADJUDGED** as follows:

1. Plaintiff Omega Patents, LLC's Motion for Entry of Final Judgement (Doc. 148) is **GRANTED**.
2. Plaintiff Omega Patents, LLC's Renewed Motion to Award Prejudgment Interest (Doc. 154) is **GRANTED**.
3. Plaintiff Omega Patents, LLC's Motion for Enhanced Damages (Doc. 148) is **GRANTED** and Plaintiff is awarded treble damages in the amount of eight million, nine hundred and twenty-five thousand and six hundred dollars ($8,925,600).
4. Plaintiff Omega Patents, LLC's Motion for Entitlement to Reasonable Attorneys' Fees (Doc. 148) is **GRANTED**.

5. Plaintiff Omega Patents, LLC's Motion for Entry of a Permanent Injunction (Doc. 148) is **DENIED**.

DONE AND ORDERED in Orlando, Florida, on April 6, 2017.

PAUL G. BYRON
UNITED STATES DISTRICT JUDGE

Copies furnished to:

Counsel of Record
Unrepresented Parties

EXHIBIT 7

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: **KENNETH E. FLICK**	
Request for Reexamination of **8,032,278**	
Control No. **90/014,675**	Attorney Docket No.: **(58106CIP1_REX5)**
Confirmation No. **7247**	
Filing Date: **2/16/2021**	Examiner: **L. WASSUM**
For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	Art Unit: **3992**

SECOND DECLARATION BY JOSEPH C. McALEXANDER, III UNDER 37 C.F.R. §1.132

I, the undersigned, hereby declare that:

I. Background

1. In formulating my opinions, I have relied upon my training, knowledge, and experience in the relevant art.

2. I am the Founder and President of McAlexander Sound, a professional engineering company, formerly the IP Director of CCI, a leader in the field of underwater wireless dive computers, Vice President of EPI Technologies, Inc., a systems and integrated circuit testing and reliability certification company, and a design and product manager at Texas Instruments. I have 49 years of experience in microcircuit and semiconductor technologies, including: device design, fabrication, assembly, testing, and marketing; control system

design and analysis; and quality, reliability, and defect/failure analysis.

3. I am a technical expert in the subject matter areas relevant to this *ex parte* reexamination, including design and testing of circuits and systems related to control systems employing wireless communication protocols and operation, information storage and transfer, user interfaces, information signal processing, applications and operating systems, and electronic device hardware and firmware design and control. From 2000-2003, I represented Toyota as its 30(b)(6) witness and technical expert focused on vehicle alarm systems.

4. I am a Registered Professional Engineer (#79454) in the State of Texas and hold a Bachelor of Science degree in Electrical Engineering from North Carolina State University.

5. I am an inventor on 31 U.S. patents and 8 foreign patents, and I am familiar with the patent process. Five of the patents (3 U.S. and 2 EP) are directed to MEMs technology for vehicle air bag sensor deployment. Twenty of the patents (19 U.S. and 1 EP) are directed to mobile device/object tracking, such as is used to track vehicles.

6. I have been an expert witness and technical consultant for the past 32 years in IP matters related to product/process analysis and investigation.

7. I prepared expert reports and provided trial testimony in the case of Omega Patents, LLC (the '278 Patent Owner) v. CalAmp Corp. (the Requester supplies the defendant with the infringing product) that recently concluded in the Middle District of Florida (hereinafter referred to as the "CalAmp litigation"). In that CalAmp litigation, the '278 patent was asserted and determined by the jury to be not invalid, and to be infringed by CalAmp. (First Jury Verdict, Exhibit 2). In the Court's Final Order of April 5, 2017 (Exhibit 6), the Court confirmed that the asserted claims were not invalid (including the claims of the '278 patent).

8. I have been retained by the Patent Owner to provide technical consultation in the present reexamination of the '278 patent, particularly with respect to addressing rejections based upon Lowrey et al. and Lightener et al.

II. The '278 Patent and Current Office Action

9. I have extensively reviewed the '278 patent, along with its file history, and arguments advanced by CalAmp's trial expert, Mr. Andrews, as part of my work on behalf of the Patent Owner during the course of the CalAmp litigation. I have also reviewed the related litigation trial transcript and exhibits, and have reviewed the Court's Final Order of April 5, 2017, and Final Judgment of April 24, 2017.

10. I have reviewed the current Office Action dated October 5, 2021 for the fifth reexamination of the '278 patent. In that Office Action, the claims were rejected as follows:

Claims 1, 4-11 and 18-22 were rejected over Lowrey et al. in view of Lightener et al.

11. Representative Claim 1 of the '278 patent is directed to a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit comprises a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The multi-vehicle compatible tracking unit comprises a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller. Independent Claim 13 (patentability already confirmed) recites that the downloading interface includes a connector for temporary connection to a downloading device. Independent Claim 18 recites that the downloading interface includes a wireless receiver for temporary connection to a downloading device.

III. The Prior Art Analysis

12. I understand that Lowrey et al. discloses an internet-based vehicle-diagnostic system with a wireless appliance in electrical contact with an in-vehicle computer that

can report position date from a GPS device. The wireless appliance operates based upon a schema to select packets from the in-vehicle computer. These packets are transmitted to a host computer system for processing.

13. I understand that Lightener et al. discloses a wireless diagnostic system in communication with a plurality of vehicles. The wireless diagnostic system also comprises a host computer system, and data collectors in each of the vehicles. The data collector queries data from the ODB bus in the vehicle, and sends the data over a wireless network. Data is retrieved from the vehicle periodically. Lightener et al. also notes: "[d]epending on the make and model of the vehicle, the data packet can contain hundreds of datum that describe, e.g.: i) basic properties of the power train (e.g., emission levels, fuel-System Status, engine temperature, Speed and odometer readings, anti-lock brake Status, RPMs, fuel and intake manifold pressure); and ii) manufacturer-specific information...". (Col. 6, lines 26-33).

14. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. fails to disclose the multi-vehicle compatible controller and downloading interface of the claimed vehicle tracking unit, as these claim recitations are interpreted by the Examiner.

15. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. discloses a limited

schema feature that is "specific to a given type of vehicle [] typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle (step 22 in FIG. 2)." (Col. 6, lines 62-65).

16. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. discloses the schema component that provides a memory location for diagnostic datum to be collected along with a time or frequency for collection.

17. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. discloses transmitting a new schema while it is installed in a given vehicle being diagnosed rather than "enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller", as recited in independent Claim 1.

18. It is my opinion that one of ordinary skill in the art would recognize that the transmitted schema of Lowrey et al. is not multi-vehicle compatible since it is already installed in the given vehicle being diagnosed.

19. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. discloses a wireless appliance that is operationally compatible with only one vehicle, namely the given vehicle whose memory locations

correspond to that particular vehicle for which the wireless appliance and associated original schema were designed.

20. It is my opinion that Lightener et al. fails to make up for the deficiencies of Lowrey et al.

21. I hereby declare further that all statements made herein are of my own knowledge and are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful and false statements may jeopardize the validity of the application or any patent issued thereon.

Joseph C. McAlexander, III

12-3-2021
Date

EXHIBIT 8

UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte OMEGA PATENTS, L.L.C.
Patent Owner and Appellant

Appeal 2018-008119
Reexamination Control 90/013,851
United States Patent 8,032,278 B2
Technology Center 3900

Before JOHN A. JEFFERY, MARC S. HOFF, and ERIC B. CHEN, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Patent Owner appeals under 35 U.S.C. §§ 134 and 306 the Examiner's decision to reject claims 1–22. We have jurisdiction under 35 U.S.C. §§ 134 and 306, and we heard the appeal on October 31, 2018. We reverse.

STATEMENT OF THE CASE

This proceeding arose from a request for *ex parte* reexamination filed on October 28, 2016 of United States Patent 8,032,278 ("the '278 patent"), issued to Kenneth E. Flick on October 4, 2011.

The '278 patent describes a tracking unit that is compatible with multiple vehicles. To this end, the tracking unit includes a multi-vehicle compatible controller that communicates with a vehicle device using a corresponding vehicle device code from among plural codes. The unit also has a downloading interface that permits downloading enabling data related to the corresponding vehicle device code, where enabling data may be (1) the vehicle device code; (2) an instruction to select a code from among those already stored; or (3) the data or sequence to allow the controller to generate the vehicle device code. *See generally* '278 patent, Abstract; col. 23, l. 41 — col. 24, l. 4.

Claim 1 is illustrative of the invention and is reproduced below:

> 1. A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible tracking unit comprising:
>
> a vehicle position determining device;
>
> a wireless communications device;
>
> a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

RELATED PROCEEDINGS

This appeal is said to be related to various proceedings. First, Appellant informs us that briefs have been filed with the Court of Appeals for the Federal Circuit in connection with related litigation between Patent Owner and Requester (CalAmp). App. Br. 7–8; Reply Br. 2.[1] Also, a second litigation against Enfora, Inc. is said to be stayed pending the outcome of this reexamination. App. Br. 9; Reply Br. 2.

Appellant also informs us of seven other *ex parte* reexamination proceedings involving four patents, one of which (Control No. 90/013,587) resulted in issuing a reexamination certificate confirming patentability of the '278 patent's claims. *See* App. Br. 9–12; Reply Br. 3; *see also* US 8,032,278 C1, issued Dec. 28, 2016.

THE REJECTIONS

The Examiner rejected claims 1, 4–8, 11, 12, and 18–21 under 35 U.S.C. § 102(b) as anticipated by Chou (US 6,330,499 B1; issued Dec.

[1] Throughout this opinion, we refer to (1) the Appeal Brief filed February 27, 2018 ("App. Br."); (2) the Examiner's Answer mailed May 14, 2018 ("Ans."); and (3) the Reply Brief filed July 13, 2018 ("Reply Br.").

11, 2011), or, alternatively, under 35 U.S.C. § 103 as obvious over Chou. Ans. 30–42.

The Examiner rejected claims 9, 10, and 22 under 35 U.S.C. § 103 as obvious over Chou and Suman (US 6,028,537; issued Feb. 22, 2000). Ans. 42–46.

The Examiner rejected claims 2, 3, and 13–16 under 35 U.S.C. § 103 as obvious over Chou and Spaur (US 5,732,074; issued Mar. 24, 1998). Ans. 46–49.

The Examiner rejected claim 17 under 35 U.S.C. § 103 as obvious over Chou, Suman, and Spaur. Ans. 50.

PROCEDURAL MATTERS

Before addressing the merits of the Examiner's rejections at issue in this appeal, we first address several procedural matters. First, Appellant's contention that the Examiner improperly refused to enter various exhibits attached to the Final Office Action (App. Br. 16–19) is a petitionable—not appealable—matter and is, therefore, not before us.[2] *Accord* Ans. 3 (noting this petitionable matter).

We reach the same conclusion regarding Appellant's contention that the present reexamination was allegedly improperly granted. App. Br. 54–

[2] *See* MPEP § 706.01 ("[T]he Board will not hear or decide issues pertaining to objections and formal matters which are not properly before the Board."); *see also* MPEP § 1201 ("The Board will not ordinarily hear a question that should be decided by the Director on petition . . . .").

61. To be sure, the propriety of an Examiner's determination that a substantial new question of patentability (SNQ) exists in an *ex parte* reexamination proceeding is appealable to this Board so long as certain procedural requirements are satisfied. *See* MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) § 2274(VI) (9th ed. Rev. 08.2017, Jan. 2018).

But that is not the case where, as here, Appellant does not squarely address—let alone persuasively rebut—the Examiner's SNQ determination. *See* App. Br. 54–61. Rather, Appellant argues that due to the alleged inequities of multiple reexamination requests against the same claims of the same patent in this proceeding, we should apply a standard similar to that used by the Board in deciding to institute trials for follow-on petitions in *inter partes* review proceedings. *See id.*

We decline to do so here. Not only are Appellant's procedural grievances petitionable matters, they do not show error in the Examiner's SNQ determination. To the extent Appellant contends otherwise, we disagree.

THE OBVIOUSNESS REJECTION OVER CHOU

The Examiner finds that Chou discloses or suggests every recited element of independent claim 1 including a multi-vehicle compatible controller (e.g., processor 300 and memory 350) to be coupled to a vehicle data bus 140 for communication thereover with at least one vehicle device (electronic control unit (ECU) 103) using at least one vehicle device code, namely a diagnostic trouble code (DTC) or fault code, from among a plurality thereof for different vehicles. Ans. 31–35. The Examiner reasons

that because Chou's fault code is vehicle model dependent, the code can be used by the vehicle device from among plural such codes. *See* Ans. 4–5, 35. The Examiner adds that Chou also discloses or suggests a downloading interface (e.g., network interface 107, 320) for permitting downloading "enabling data" (e.g., instructions to gather data and vehicle parameter changes) related to at least one corresponding vehicle device code for use by the controller. Ans. 35–36.

Appellant argues that Chou does not teach or suggest the recited multi-vehicle compatible controller and downloading interface. App. Br. 19–35; Reply Br. 4–11. Although Appellant acknowledges that Chou's vehicle-dependent fault codes are listed in a Society of Automotive Engineers (SAE) publication, Appellant nonetheless emphasizes that these codes lack uniformity between manufacturers, and even within product lines of the same manufacturer—a problem that is said to be addressed by the claimed invention. App. Br. 24–26. According to Appellant, the Examiner's equating different vehicles in the context of the claimed invention to those of the same make and model, namely vehicles with identical electronics and vehicle codes, but with different trims, is inconsistent with the disclosure and, therefore, unreasonable. Reply Br. 6–9.

Appellant also argues that Chou does not teach or suggest the recited downloading interface, but rather merely passes data between an in-vehicle system and a remote service center. App. Br. 25–29. According to Appellant, Chou teaches away from the claimed invention by working with different vehicle codes at the service center—not the vehicle. App. Br. 35–38. Appellant adds that evidence of secondary considerations of non-

obviousness, including licensing, commercial success, copying by others, customer need, and the limited value for accused products without the invention, further rebuts the Examiner's obviousness rejection. App. Br. 38–54; Reply Br. 11.

ISSUE

Under § 103, has the Examiner erred in rejecting claim 1 by finding that Chou would have taught or suggested the recited multi-vehicle compatible controller and downloading interface?

ANALYSIS

We begin by construing a key disputed limitation of claim 1 which recites, in pertinent part, a multi-vehicle compatible controller. The Specification does not define the term, but does describe a multi-vehicle compatible controller 111 in Figure 10 that includes, among other things, a central processing unit 126 and input/output (I/O) circuitry 127 that interfaces with a vehicle device 121 using at least one corresponding vehicle device code from plural codes for different vehicles. '278 patent, col. 23, ll. 59–67. The corresponding vehicle code may be for reading from, or writing to, the vehicle device. *Id.* col. 23, l. 67 – col. 24, l. 3.

In related litigation involving the '278 patent, a U.S. District Court construed the term "multi-vehicle compatible controller" as "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle"—a construction that neither party disputed. *See Omega Patents, LLC v. CalAmp Corp.*, No. 6:13-cv-1950-Orl-40DAB,

(M.D. Fla. Feb. 20, 2015) ("Dist. Ct. Claim Construction Order"), at 6, 24, *cited in* App. Br. Rel. Proc. App. ("Item 8"). Although we apply a claim construction standard in *ex parte* reexamination proceedings different from that used by the court, we nonetheless find that the court's construction is consistent with the term's broadest reasonable interpretation in light of the Specification. *Accord Power Integrations, Inc. v. Lee*, 797 F.3d 1318, 1326–27 (Fed. Cir. 2015) (emphasizing the Board's obligation to (1) evaluate a district court's claim construction for terms at issue, and (2) determine whether that construction is consistent with the term's broadest reasonable interpretation).

Claim 1 further recites that the multi-vehicle compatible controller can communicate with at least one vehicle device using at least one corresponding vehicle device code from among plural device codes for different vehicles. The district court construed the term "device codes" as "signal from a vehicle device," Dist. Ct. Claim Construction Order at 17, 25—a construction that is likewise consistent with its broadest reasonable interpretation. Although the court did not construe the term "different vehicles," the '278 patent in column 22, lines 3 to 7 incorporates by reference a related patent, namely U.S. Patent No. 5,719,551 ("the '551 patent"), which explains that "the term different vehicles may include vehicles from different manufacturers, different models, or even different trim levels of the same make or model." '551 patent, col. 6, ll. 38–42. *Accord* Reply Br. 8 (acknowledging this explanation).

The term "trim level" in a vehicular context refers to a version of a vehicle model that comes equipped with a set combination of features. *See*

What is a Vehicle Trim Level?, THE NEWSWHEEL, http://thenewswheel.com/what-is-a-vehicle-trim-level (Oct. 27, 2017) ("Newswheel"). In defining "trim level," this article explains that although trim packages previously were typically purely aesthetic and only added non-functional touches like chrome accents and upholstery stitching, many automakers today include sets of higher-technology features and/or performance upgrades in trim packages, resulting in offering as many as 6–10 different trim levels for a given vehicle model. *Id.*

Although the Examiner construes the recited term "different vehicles" to include vehicles that are the same make and model but with different trims consistent with the '551 patent, the Examiner nonetheless includes vehicles whose *electronics are not different* as "different vehicles." *See* Ans. 4.

We find this construction problematic on this record. To be sure, Newswheel indicates that differences among trim packages were formerly purely aesthetic and non-functional, thus suggesting that the electronics in these vehicles in these different trim packages would be the same despite the vehicles' aesthetic differences.

But as Appellant indicates (Reply Br. 6–9), vehicles with identical electronics would use the same vehicle codes and, therefore, their inclusion runs counter to the functionality of the recited *multi-vehicle compatible* controller that can communicate with a vehicle device using at least one corresponding vehicle device code *from among plural codes for different vehicles*. Indeed, this compatibility with different vehicles and their different codes is a fundamental aspect of the claimed invention that solves a

longstanding problem in the art as Appellant indicates. *See* App. Br. 32 (noting that the lack of vehicle code compatibility among different vehicles for vehicle tracking units is the problem addressed by the '278 patent). To the extent that the Examiner construes the different vehicles in claim 1 to include those with the same vehicle codes, we find such a construction unreasonable when interpreted in light of the Specification.

In reaching this conclusion, we emphasize that the broadest reasonable interpretation in light of the Specification is not whether the Specification precludes some broad reading of the claim term adopted by the Examiner. *See In re Smith Int'l, Inc.*, 871 F.3d 1375, 1382–83 (Fed. Cir. 2017). Nor is the broadest reasonable interpretation simply one that is not inconsistent with the Specification. *Id.* at 1383. Rather, it is an interpretation that corresponds with what and how the inventor describes his invention in the Specification, that is, an interpretation consistent with the Specification. *Id.* (citing *In re Suitco Surface*, 603 F.3d 1255, 1259–60 (Fed. Cir. 2010)).

Therefore, we find the Examiner's reliance on Chou for teaching the recited multi-vehicle compatible controller problematic on this record. In Chou, a vehicle's ECUs 103 (which the Examiner maps to the recited "vehicle device" (*see* Ans. 35)) report fault codes to fault detector 120B via vehicle bus 140 and vehicle bus adapter 120C, the latter translating messages received from the bus into the language of the fault detector and vice-versa. Chou, col. 4, ll. 20–28; Fig. 3. Although these fault codes' specifications and protocols depend on the manufacturer and vehicle model,

and the codes are listed in an SAE publication,[3] that does not mean that Chou's controller is *compatible with multiple vehicles*, where the controller can communicate with a vehicle device using at least one corresponding vehicle device code from among plural codes for different vehicles as claimed. Indeed, this very SAE publication acknowledges the lack of uniformity in these codes between manufacturers and, in some cases, within the same manufacturer across different product lines. *See* App. Br. 26–27, 32 (quoting a passage from page 39 of the SAE HS-3000 manual). *Accord* Declaration by Joseph C. McAlexander, III Under 37 C.F.R. § 1.132, dated June 12, 2017 ("2017 McAlexander Decl.") ¶ 13 (quoting this passage). *See also* Rule 132 Declaration by Michael J. Suman, dated July 5, 2016 ("Item 4) ("Suman Decl.") ¶¶ 11–12 (declaring that, at the time of his U.S. Patent 6,028,537 whose provisional application was filed June 14, 1996, vehicle device codes were (1) proprietary to different manufacturers, (2) not made freely available, and (3) difficult to obtain). *Accord* Rule 132 Declaration By Joseph C. McAlexander, III, dated July 6, 2016 ("Item 5") ("2016 McAlexander Decl.") ¶ 10 (corroborating this testimony).

At best, Chou's controller is compatible with *one* vehicle, namely the particular vehicle whose fault codes correspond to that particular vehicle for which the controller was designed. *Accord* App. Br. 32 (noting that Chou's ECUs use their own respective trouble codes that are different for different vehicles). Although Chou's remote service center can work with different

[3] Chou refers to this publication as "SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual." Chou, col. 4, ll. 33–36. For brevity and consistency, we refer to this manual consistent with Appellant's nomenclature, namely "SAE HS-3000." *See* App. Br. 25.

vehicle device codes using a server 201 and repository 203 in Figure 1 as Appellant acknowledges (App. Br. 37), Chou does not teach or suggest providing such a capability in a vehicle.

Nor do we find that Chou teaches or suggests the recited downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller. In the related litigation, the District Court did not construe the term "downloading interface," but did construe the term "enabling data" as data relating to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller—a construction that matches the terms in the claim. *See* Dist. Ct. Claim Construction Order at 20–23, 25.

According to the Specification, enabling data *may be, for example,* (1) the vehicle device code or codes; (2) an instruction to select a code or codes from among those already stored; or (3) the data or sequence to allow the controller 111 to generate the vehicle device code or codes. '278 patent, col. 24, ll. 9–13. Our emphasis on the permissive and exemplary language in this passage underscores that enabling data is not limited to these three alternatives.

But despite this non-limiting description, what is clear from Appellant's disclosure is that downloading enabling data via the recited interface enables the recited controller to use a *particular* vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the

controller to select or generate the code. *See* '278 patent, col. 24, l. 5 – col. 25, l. 28; Figs. 10–13.

Turning to the rejection, the Examiner refers to, among other things, Chou's network interface 320 and external device in Figure 2, as well as network interface 107 and cell phone 102 in Figure 3, in connection with the recited downloading interface. *See* Ans. 5–6, 35–36.

As shown in Chou's Figures 2 and 3, Chou's network interface 320 communicates wirelessly with remote service center 200 whose diagnostic server 201 accesses vehicle-related data, including diagnostics and failure mode data. *See* Chou, col. 3, ll. 15–32; col. 5, ll. 33–39. In one aspect, the diagnostic server sends a health report to a vehicle's client computer device 101, where the report is based on trouble codes reported by the client. Chou, col. 6, ll. 1–14. If a fault or fault potential is identified, the server (1) informs the vehicle's client computer device via the data connection, and (2) compiles the relevant data and creates a case for an associated call center system 202 to handle. Chou, col. 6, ll. 15–19.

Chou's system can also provide vehicle health checkups upon driver request. *See* Chou, col. 8, l. 65 – col. 10, l. 11; Fig. 5. After the driver triggers a health checkup session, vehicle data, including trouble codes, are sent to the diagnostic server where this information is compared with that stored in a repository, and a corresponding report is prepared and sent back to the vehicle for display. Chou, col. 9, ll. 1–59; Fig. 5.

Although this functionality facilitates downloading vehicle-related data and is, therefore, a "downloading interface" at least in that sense, it nevertheless does not permit downloading the *particular enabling data*

recited in the claim. As noted previously, this enabling data enables the recited controller to use a *particular* vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code. *See* '278 patent, col. 24, l. 5 – col. 25, l. 28; Figs. 10–13. To the extent that the Examiner finds that the data contained in the report sent from Chou's diagnostic server to the vehicle somehow contains this particular enabling data, there is no evidence on this record to substantiate such a finding.

Therefore, we agree with Appellant that Chou does not teach or suggest the recited multi-vehicle compatible controller and downloading interface. Although this deficiency is dispositive regarding our reversing the Examiner's obviousness rejection, we add that Appellant's evidence of secondary considerations of non-obviousness, including licensing, commercial success, copying by others, customer need, and the limited value for accused products without the invention (App. Br. 38–54; Reply Br. 11; 2017 McAlexander Decl. ¶ 19), only further weighs in favor of Appellant.

Therefore, we are persuaded that the Examiner erred in rejecting (1) independent claim 1; (2) independent claim 18 which recites commensurate limitations; and (3) dependent claims 4–8, 11, 12, and 19–21 for similar reasons. Because this issue is dispositive regarding our reversing the Examiner's obviousness rejection of these claims, we need not address Appellants' other associated arguments including whether Chou teaches away from the claimed invention. *See* App. Br. 35–38.

THE ANTICIPATION REJECTION

Although Appellant's arguments regarding (1) the submitted evidence of secondary considerations of non-obviousness (App. Br. 38–54; Reply Br. 11), and (2) Chou teaching away from the claimed invention (App. Br. 35–38) are irrelevant to the Examiner's anticipation rejection over Chou (Ans. 30–42),[4] we nonetheless find that Chou does not necessarily disclose the recited multi-vehicle compatible controller and downloading interface expressly or inherently for the reasons previously discussed.

Therefore, we are persuaded that the Examiner erred in rejecting (1) independent claim 1; (2) independent claim 18 which recites commensurate limitations; and (3) dependent claims 4–8, 11, 12, and 19–21 for similar reasons.

THE OTHER OBVIOUSNESS REJECTIONS

Because the Examiner has not shown that the additional cited prior art cures Chou's above-noted deficiencies, we will not sustain the obviousness rejections of claims 2, 3, 9, 10, 13–17, and 22 (Ans. 42–50) for similar reasons.

---

[4] *See, e.g.*, *Leggett & Platt, Inc. v. VUTEk, Inc.*, 537 F.3d 1349, 1356 (Fed. Cir. 2008) ("'[T]eaching away' is irrelevant to anticipation."); *see also Cohesive Technologies, Inc. v. Waters Corp.*, 543 F.3d 1351, 1364 (Fed. Cir. 2008) ("[O]bviousness requires analysis of secondary considerations of nonobviousness, while secondary considerations are not an element of a claim of anticipation.").

CONCLUSION

The Examiner erred in rejecting (1) claims 1, 4–8, 11, 12, and 18–21 under § 102, and (2) claims 1–22 under § 103.

DECISION

The Examiner's decision to reject claims 1–22 is reversed.

Requests for extensions of time in this *ex parte* reexamination proceeding are governed by 37 C.F.R. § 1.550(c). *See* 37 C.F.R. § 41.50(f).

REVERSED

PATENT OWNER:

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Electronic Acknowledgement Receipt

EFS ID:	45378770
Application Number:	90014675
International Application Number:	
Confirmation Number:	7247
Title of Invention:	VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS
First Named Inventor/Applicant Name:	8032278
Customer Number:	27975
Filer:	Jack G. Abid/Sheryl Scheibe
Filer Authorized By:	Jack G. Abid
Attorney Docket Number:	CAAMP-001X
Receipt Date:	01-APR-2022
Filing Date:	16-FEB-2021
Time Stamp:	16:50:13
Application Type:	Reexam (Patent Owner)

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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Appeal Brief Filed	sls58106cip1rex5brief.pdf	876086 19149d299ec2898bc188952719cdbf633b6d449e	no	59

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2	Affidavit/Declaration/ Exhibit After Notice of Appeal	sls0058106cip1rex5exhibits.pdf	5600983 41f012b1a1da69c60cd991f7173b7db25f085cdf	no	86
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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

APPENDIX B – EVIDENCE APPENDIX

In accordance with MPEP §1205.02

While it is no longer a requirement to include an evidence appendix, the Office strongly encourages and appreciates receiving copies of the evidence relied upon (e.g., copies of declarations and affidavits, evidence of secondary considerations, etc.). This ensures that the Board is considering the proper evidence and avoids any confusion as to the particular evidence referenced in the appeal brief. In the alternative, the Board recommends that appellants clearly identify in the appeal brief the evidence relied upon using a clear description of the evidence along with the date of entry of such evidence into the Image File Wrapper.

In re Patent Application of:
KENNETH E. FLICK
Reexamination Control No. **90/014,675**
Filed: **2/16/2021**
_____/

COURTESY COPIES OF PREVIOUSLY-ADMITTED DECLARATIONS AND EXHIBITS

1. Executed Rule 132 Declaration of Joseph McAlexander August 21, 2021 (admitted with response filed August 23, 2021)

2. First Jury Verdict from related litigation with Requester's Customer (admitted with response filed August 23, 2021)

3. Second Jury Verdict from related litigation with Requester's Customer (admitted with response filed August 23, 2021)

4. Letter to Attorney of Requester (admitted with response filed August 23, 2021)

5. Letter from Attorney of Requester (admitted with response filed August 23, 2021)

6. Final Order from related litigation with Requester (admitted with response filed August 23, 2021)

7. Executed Rule 132 Declaration of Joseph McAlexander December 3, 2021 (admitted with response filed December 6, 2021)

8. Decision on Appeal from Second *Ex Parte* Reexamination of '278 Patent

APPENDIX A - CLAIMS ON APPEAL

1. A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

2. The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface comprises a wired signal downloading interface.

3. The multi-vehicle compatible tracking unit according to claim 2 wherein said wired signal downloading interface comprises a connector for temporary connection to a downloading device.

4. The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface comprises a wireless signal downloading interface.

5. The multi-vehicle compatible tracking unit according to claim 4 wherein said wireless signal downloading interface comprises a wireless receiver for temporary connection to a downloading device.

6. The multi-vehicle compatible tracking unit according to claim 1 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

7. The multi-vehicle compatible tracking unit according to claim 1 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

8. The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

9. The multi-vehicle compatible tracking unit according to claim 1 further comprising a remote transmitter; and wherein said multi-vehicle compatible controller also performs at

least one vehicle remote control function responsive to said remote transmitter.

10. The multi-vehicle compatible tracking unit according to claim 9 wherein the at least one vehicle remote control function comprises at least one of a vehicle security function, a remote keyless entry function, and a remote engine starting function.

11. The multi-vehicle compatible tracking unit according to claim 1 wherein said wireless position determining device comprises a Global Positioning System (GPS) receiver.

12. The multi-vehicle compatible tracking unit according to claim 1 further comprising a housing containing said vehicle position determining device, said wireless communications device, said multi-vehicle compatible controller, and said downloading interface.

13. A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller;

said downloading interface comprising a connector for temporary connection to a downloading device.

14. The multi-vehicle compatible tracking unit according to claim 13 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

15. The multi-vehicle compatible tracking unit according to claim 13 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

16. The multi-vehicle compatible tracking unit according to claim 13 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

17. The multi-vehicle compatible tracking unit according to claim 13 further comprising a remote transmitter; and wherein said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter.

18. A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller;

said downloading interface comprising a wireless receiver for temporary connection to a downloading device.

19. The multi-vehicle compatible tracking unit according to claim 18 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

20. The multi-vehicle compatible tracking unit according to claim 18 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

21. The multi-vehicle compatible tracking unit according to claim 18 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

22. The multi-vehicle compatible tracking unit according to claim 18 further comprising a remote transmitter; and wherein said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

In re Patent Application of: **KENNETH E. FLICK** Request for Reexamination of **8,032,278** Control No. **90/014,675** Confirmation No. **7247** Filing Date: **2/16/2021** For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	Attorney Docket No.: **(58106CIP1_REX5)** Examiner: **L. WASSUM** Art Unit: **3992**

PATENT OWNER'S APPEAL BRIEF

EFILED
Commissioner for Patents

Dear Commissioner:

Submitted herewith is Patent Owner's Appeal Brief. If any fee is required, authorization is given to charge Deposit Account No. 01-0484.

In re Patent Application of:
KENNETH E. FLICK
Reexamination Control No. **90/014,675**
Filed: **2/16/2021**
_____/

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(1) Real Party in Interest

The real party in interest is OMEGA PATENTS, L.L.C., assignee of the present application as recorded at reel 019515, frame 0350.

(2) Related Appeals, Interferences, and Trials

At present there are no related appeals, or interferences. There are three related trials.

I. First Litigation

The Requester, i.e. the Innova Electronic Corporation (hereinafter "Innova"), is a supplier of an infringing product to the CalAmp Corporation (hereinafter "CalAmp"). The past four *ex parte* reexaminations of the '278 patent have been filed by the Requester and CalAmp.

Personnel of CalAmp began patent licensing discussions with Mr. Flick, President of the Patent Owner, in approximately 2005. Meetings were held in 2009 and a patent license was offered, and rejected, resulting in a lawsuit filed December 14, 2009. This suit did not involve the '278 patent under reexamination, and was resolved on June 9, 2010.

Further licensing discussions with CalAmp failed and another lawsuit was filed against CalAmp on December 20, 2013. (6:13-cv-01950-PGB-DCI, in the Middle District of Florida (Orlando)). This case involved the present '278 patent.

On February 24, 2016, the related seven-day jury trial

involving the '278 patent was concluded with a First Jury Verdict (Exhibit 2), where CalAmp was found to infringe all of the asserted claims in all of asserted patents, and, in particular, the asserted Claims 1, 3-5, 12, 14 and 16 of the '278 patent. In the finding that the '278 patent was not invalid, the Jury found secondary factors indicating non-obviousness of the '278 patent.

In the related litigation between the Patent Owner and CalAmp, which ultimately resulted in a rejection of CalAmp's invalidity arguments, CalAmp on April 20, 2018 filed its first appeal brief with the Court of Appeals for the Federal Circuit. The Patent Owner filed its responsive brief on May 30, 2018, and CalAmp filed a reply brief on July 2, 2018. Of particular relevance, CalAmp's briefs in the litigation raised no issues with respect to validity of any of the asserted patents (including the '278 patent) in view of the prior art carefully selected and presented at trial.

On April 8, 2019, the Appeal was affirmed-in-part, reversed-in-part, and vacated-in-part. The decision remanded the case back to the District Court for a retrial. During the retrial, CalAmp did not challenge the validity of the infringed claims. The second trial concluded on September 30, 2019, and the Jury found CalAmp infringed the '278 patent and awarded $4,586,111 in damages. (*See* Second Jury Verdict, Exhibit 3). The court jury also awarded an ongoing royalty of $5 a unit for the '278 patent.

CalAmp on May 14, 2020 filed a second appeal brief with

the Court of Appeals for the Federal Circuit. On September 14, 2021, the Federal Circuit confirmed infringement of the '278 patent and remanded for a further trial on damages.

II. Second Litigation

The Patent Owner filed a patent infringement lawsuit on July 21, 2017 against Enfora, Inc. in the Northern District of Georgia, Atlanta Division (Case 1:17-cv-02769-TWT). The asserted patents in this Enfora suit include the '278 patent, which is the subject of this fifth reexamination by the Requester. This litigation was concluded September 3, 2019.

III. Third Litigation

The Patent Owner was also asserting the '278 patent in a litigation against Firstech, LLC in the Western District of Washington (2:20-cv-01344). This suit has been settled prior to trial.

(3) Related Reexaminations

As in this fifth reexamination, the Requester and CalAmp have filed follow-on reexamination requests against three other patents of the Patent Owner. This is the list of the other reexaminations and related statuses:

U.S. Patent No. **6,756,885** (expired August 22, 2016)
Reexamination 90/013,741 resulting in Reexamination

Certificate August 1, 2017.

U.S. Patent No. **6,756,885** (expired August 22, 2016) Reexamination 90/014,038 resulting in Reexamination Certificate October 25, 2019.

U.S. Patent No. **6,346,876** (expired August 22, 2016) Reexamination 90/013,659 resulting in Reexamination Certificate September 1, 2017.

U.S. Patent No. **6,346,876** (expired August 22, 2016) Reexamination 90/014,122 resulting in Reexamination Certificate March 23, 2020.

U.S. Patent No. **7,671,727** Reexamination 90/013,832 resulting in Reexamination Certificate August 1, 2017.

U.S. Patent No. **7,671,727** Reexamination 90/014,121 in Reexamination Certificate May 29, 2020, canceling all claims.

U.S. Patent No. **8,032,278** (unexpired) Reexamination 90/013,587 resulting in Reexamination Certificate December 28, 2016.

U.S. Patent No. **8,032,278** (unexpired)
Reexamination 90/013,851 resulting in Reexamination Certificate February 6, 2019.

U.S. Patent No. **8,032,278** (unexpired)
Reexamination 90/014,309 resulting in Reexamination Certificate January 8, 2020.

U.S. Patent No. **8,032,278** (unexpired)
Reexamination 90/014,419, request for reexamination was denied, Requester filed a petition challenging the determination of no substantial new question of patentability on February 25, 2020.

The Patent Owner submits that the Requester's and CalAmp's duplicative and harassing efforts are improper. The Requester and CalAmp, having failed in their earlier rounds of *ex parte* reexamination requests for the '278 patent, are now on to round five.

The Patent Owner submits that such sequential/serial requests for *ex parte* reexamination are a waste of USPTO resources. The Patent Owner submits that the Requester is abusing patent office procedures in a fashion that is fundamentally unfair to the Patent Owner.

(4) Summary of the Claimed Subject Matter

Independent Claim 1 is directed to a multi-vehicle compatible tracking unit 110 for a vehicle comprising a vehicle data bus 122 extending throughout the vehicle. The multi-vehicle compatible tracking unit comprises a vehicle position determining device 112, a wireless communications device 113, and a multi-vehicle compatible controller 111 for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device 121 using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The multi-vehicle compatible tracking unit comprises a downloading interface 116 for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller. (Figures 10-13, reproduced below, and Page 27, Col. 23, line 41 through Page 28, Col. 25, line 61).

Independent Claim 13 is directed to a multi-vehicle compatible tracking unit 110 for a vehicle comprising a vehicle data bus 122 extending throughout the vehicle. The multi-vehicle compatible vehicle tracking unit comprises a vehicle position determining device 112, a wireless communications device 113, and a multi-vehicle compatible controller 111 for cooperating with the vehicle position determining device and the wireless

communications device to send vehicle position information. The multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device 121 using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The multi-vehicle compatible vehicle tracking unit comprises a downloading interface 116 for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller. The downloading interface comprises a connector 133a-133b for temporary connection to a downloading device 115''. (Figures 10 & 13, reproduced below, and Page 27, Col. 23, line 41 through Page 28, Col. 25, line 61).

Independent Claim 18 is directed to a multi-vehicle compatible tracking unit 110 for a vehicle comprising a vehicle data bus 122 extending throughout the vehicle. The multi-vehicle compatible vehicle tracking unit includes a vehicle position determining device 112, a wireless communications device 113, and a multi-vehicle compatible controller 111 for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device 121 using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The multi-vehicle compatible vehicle tracking unit

includes a downloading interface 116 for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller. The downloading interface comprises a wireless receiver 114 for temporary connection to a downloading device 115. (Figures 10-11, reproduced below, and Page 27, Col. 23, line 41 through Page 28, Col. 25, line 61).

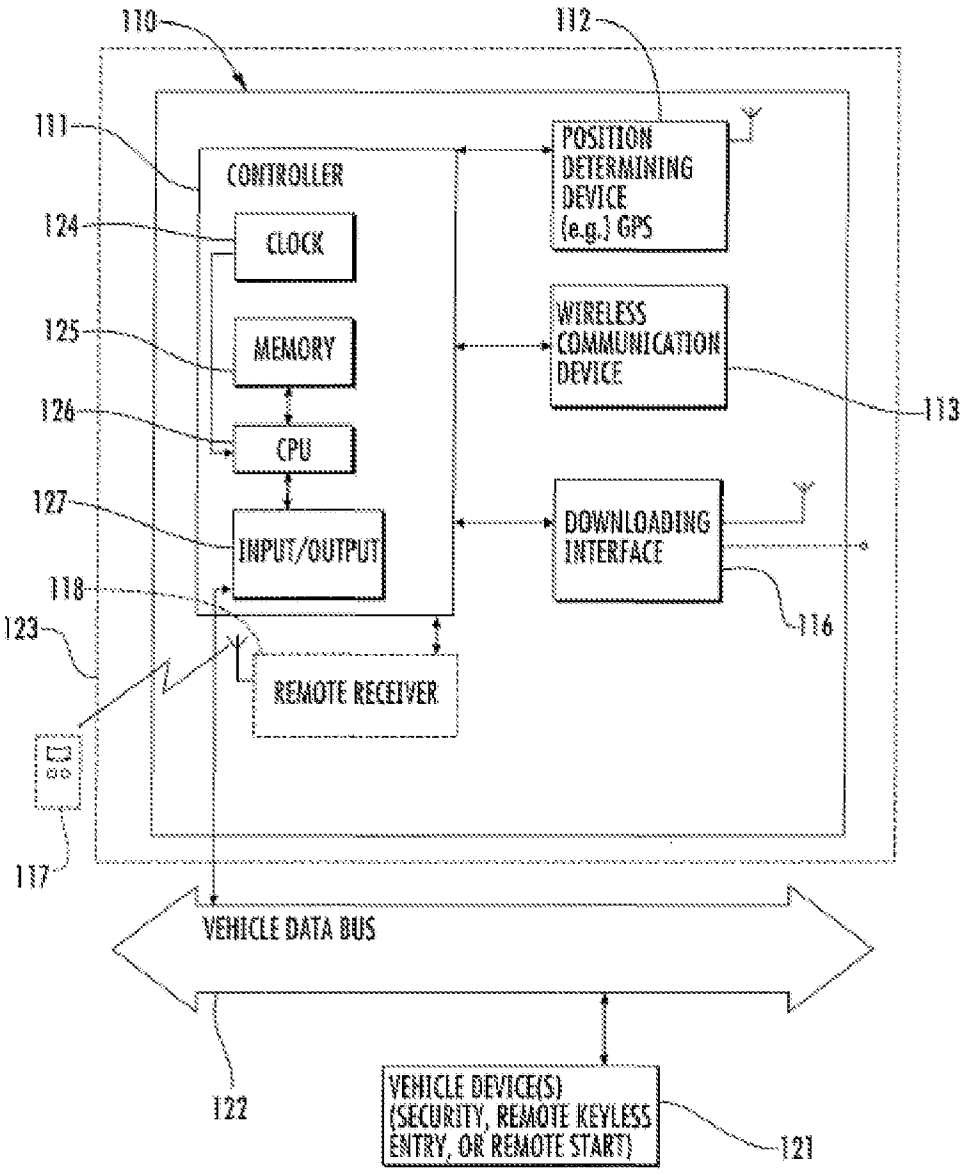


Figure 10 of the '278 Patent

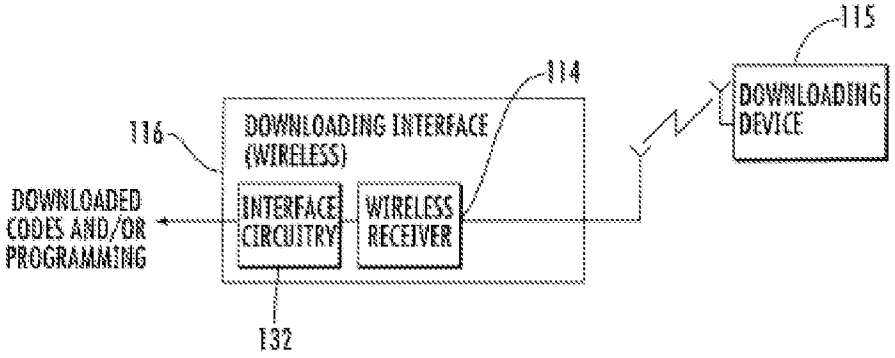


Figure 11 of the '278 Patent

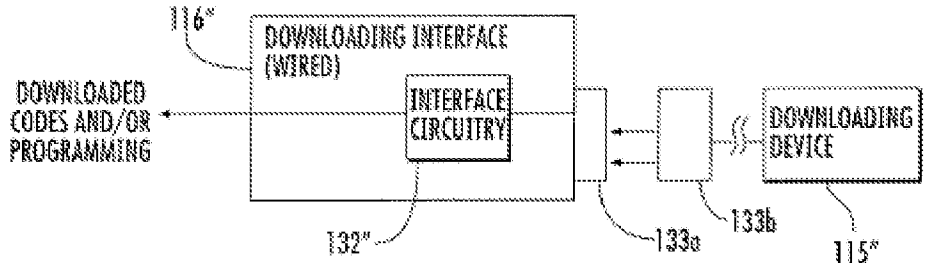


Figure 13 of the '278 Patent

(5) The Request for Reexamination Should Not Have Been Granted

I. The Original Request Does Not Present an SNQ

The Patent Owner submits that the present *ex parte* reexamination should not have been granted based upon the combination of Lowrey et al. and Lightener et al. For a proper order for *ex parte* reexamination, the Patent Office must identify a "substantial new question of patentability." 35 U.S.C. §303(a).

MPEP §2242(I) recites:

> a substantial new question of patentability as to the claim is present, unless the same question of patentability has already been: (A) decided in a final holding of invalidity by a federal court in a decision on the merits involving the claim, after all appeals; (B) decided in an earlier concluded examination or review of the patent by the Office; or (C) raised to or by the Office in a pending reexamination or supplemental examination of the patent.

The Patent Owner submits that present fifth reexamination request over Lowrey et al. is substantially identical to the second reexamination request of this same patent, which relied on the Chou et al. prior art reference. As detailed in Section 6(I)(C) herein, the disclosure of Lowery et al. is very similar to the disclosure of Chou et al. As in Chou et al., Lowrey et al. discloses a wireless appliance that can be physically and electrically installed in different vehicles, but is only operationally compatible with one vehicle. ("At best, Chou's controller is compatible with one vehicle, namely the particular vehicle whose fault codes correspond to that particular vehicle for which the controller was designed", Exhibit 8, Decision on Appeal, page 11).

More so, in the present *ex parte* reexamination, the Requester relied upon a defective incorporation by reference to Lightener et al. in an attempt to provide the missing multi-vehicle compatible controller. In the second *ex parte*

reexamination request, Requester's customer, CalAmp, (the Requester in that reexamination) also relied upon a secondary prior art reference, SAE Manuals, to provide the missing multi-vehicle compatible controller. In short, the present reexamination is cumulative to the prior art already presented, considered, and rejected in the second reexamination.

II. The Present Reexamination Represents A Pattern Of Harassment

As noted above, the present fifth *ex parte* reexamination request of the '278 patent is representative of serial and duplicative harassment of the Patent Owner by the Requester (Supplier of CalAmp) and CalAmp.

Indeed, the one consistent beat throughout the multiple requests of reexamination is the formula of combining a tracker prior art reference with a secondary reference in an attempt to provide the multi-vehicle compatibility. The Requester has used this same formula once again in the present *ex parte* reexamination.

Moreover, as noted above, the Requester has utilized the Lowrey et al. prior art reference similarly to the prior four failed prior requests for *ex parte* reexamination filed against the '278 patent. The Patent Owner submits that the USPTO should not have granted the present request since it is part of long standing pattern of duplicative harassment by CalAmp and its supplier, the Requester.

Furthermore, the Patent Owner respectfully submits that the Requester's repeated requests for *ex parte* reexamination should have been rejected as being wasteful of USPTO resources and being fundamentally unfair to the Patent Owner. In a recent line of decisions, the Patent Trial and Appeal Board (PTAB) has delineated a rule governing follow-on requests for IPR. (*See Nvidia Corp. v. Samsung Electronics. Co.*, IPR2016-00134, 2016 Pat. App. Filings LEXIS 3606; and *General Plastic Indust. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357-61 (PTAB)). The Patent Owner submits that the PTAB should introduce the rationale from its *Nvidia* line of decisions within the framework of *ex parte* reexaminations.

III. The Request for Reexamination Included Misleading Information

The request for *ex parte* reexamination of the '278 patent for the present reexamination is based upon so-called recently identified U.S. Patent No. 6,611,740 to Lowrey et al. This is the second request filed by attorneys for Innova. The first request (denied) having been filed on December 16, 2019. Innova's customer, CalAmp, directly filed three of its own serial reexamination requests on: (1) September 14, 2015; (2) October 28, 2016; and (3) May 24, 2019. The litigation sparking this series of reexamination requests was filed against CalAmp on December 20, 2013 as noted above.

On pages 1-2 of the second request (fifth in the

series), Requester's attorney states: "**[r]ecently**, additional prior art that was not previously considered by the United States Patent and Trademark Office ("USPTO") **has been identified** that is believed to raise a substantial new question of patentability." (Emphasis Added).

At a minimum, this language is misleading. Indeed, seventeen Innova patents cite this same reference, and predate the present reexamination request and the first Innova reexamination request. The "recently identified" Lowrey et al. patent **was cited in cases personally prosecuted by the attorney for the Requester**, see, e.g., U.S. Patent Nos. 10,643,403 (filed September 30, 2015 and issued May 5, 2020); 10,640,060 (filed March 8, 2017 and issued May 5, 2020); 10,462,225 (filed August 25, 2017 and issued October 29, 2019); and 10,163,281 (filed January 12, 2017 and issued December 25, 2018).

The Patent Owner notified the Requester of this misleading information in a communication dated March 5, 2021 (Exhibit 4) encouraging Requester to update the Patent Office regarding the "recently identified" reference. Requester responded to the Patent Owner, but chose not to advise the Patent Office despite this clear showing of repeated harassment of the Patent Owner. A copy of the Requester's response is attached as Exhibit 5.

The Patent Owner submits that the serial harassment of Patent Owner is evident and respectfully requests the Patent Office to confirm patentability of the rejected claims based on

this reason alone.

(6) Argument

I. Lowrey et al. and Lightener et al. Fail to Disclose Each and Every Feature of the Claimed Invention

A. The *Schema* Teachings of Lowrey et al. Are *Extremely Limited*

Lowrey et al., like much of the prior art repeatedly considered in previous reexaminations, discloses an Internet-based vehicle-diagnostic system including a wireless appliance in electrical contact with an in-vehicle computer and that can report position data from a GPS device. (*See* Figure 1, reproduced below).

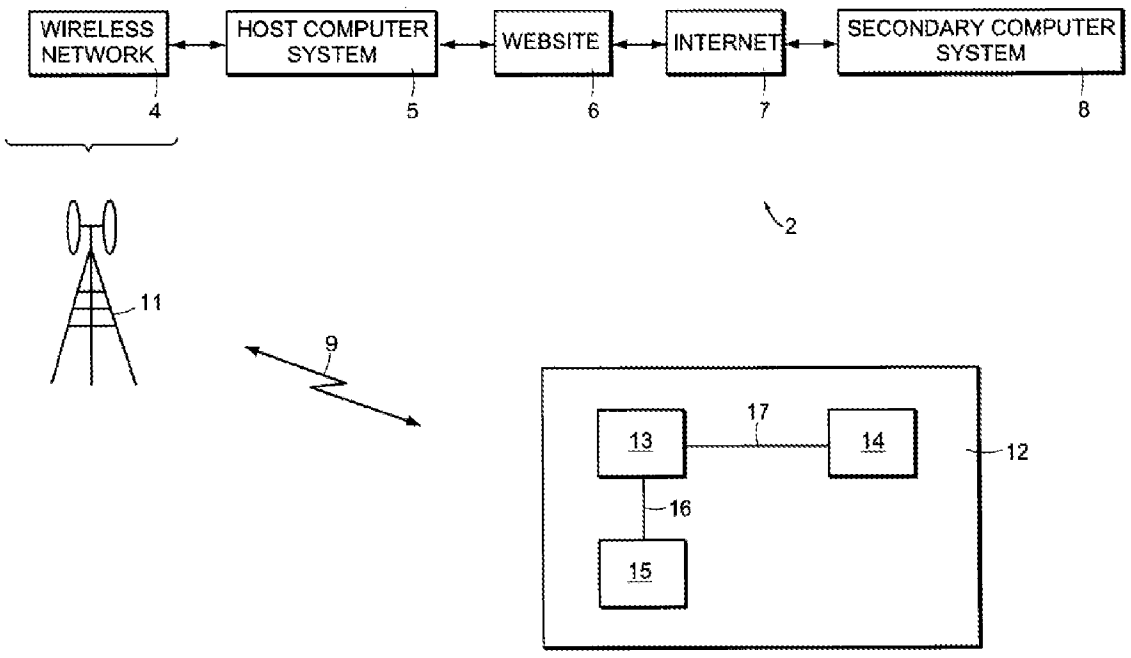


Figure 1 of Lowrey et al.

As noted in the Second McAlexander Declaration, to be installed in a given vehicle, Lowrey et al. states: "[a] schema specific to a given type of vehicle is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle (step 22 in FIG. 2)." (Col. 6, lines 62-65: Emphasis Added; and *see* Exhibit 7, page 6). As described in Figure 2, the wireless appliance is installed with an "original data-collection schema". *(See* Figure 2, reproduced below).

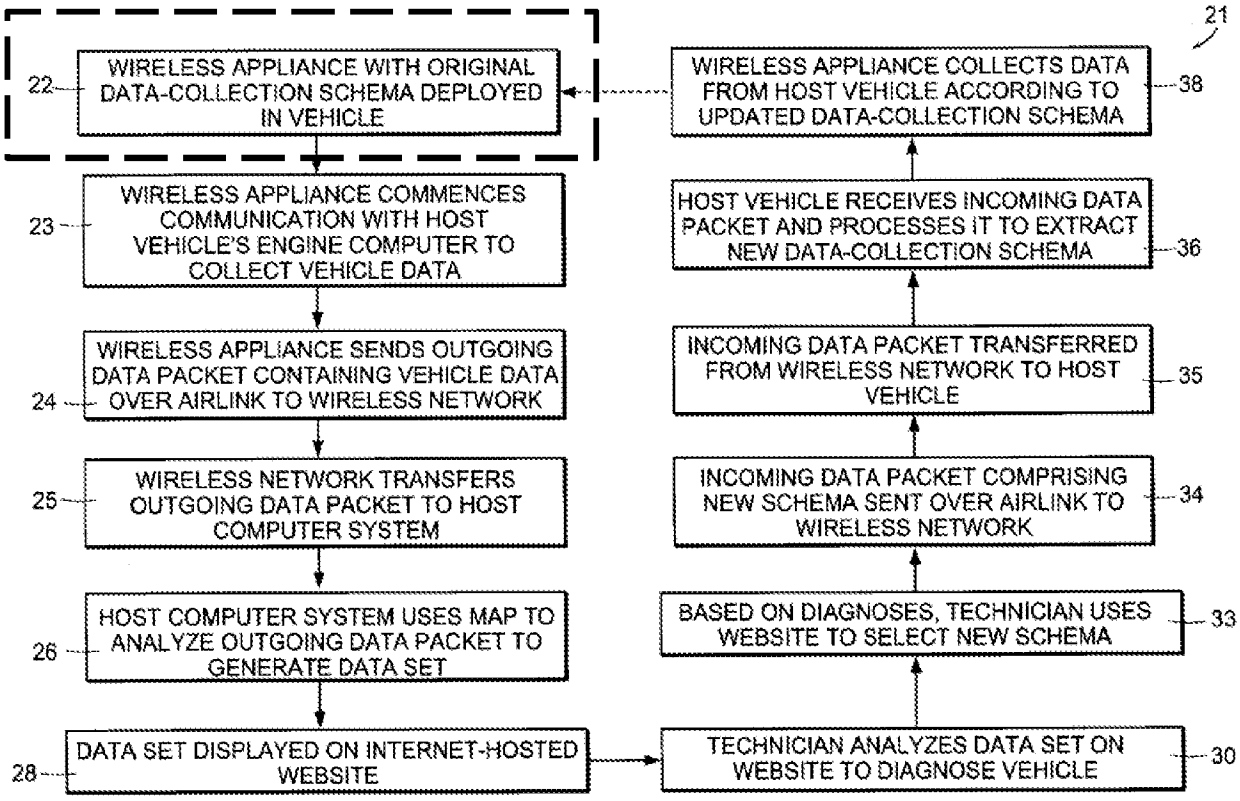


Figure 2 of Lowrey et al. (Annotated)

Once installed in the given vehicle, Lowrey et al.

describes the schema as follows:

> **a schema component that identifies the diagnostic data to be collected from the vehicle's computer.** The schema component features an **address** that describes a location of a diagnostic datum in the vehicle's computer memory. It can also describe a **time or frequency** that **the data-collection component collects data from the vehicle's computer,** or a time or frequency that the data-transmission component transmits an outgoing data packet.
> (Col. 2, line 64 through Col. 3, line 5: Emphasis Added).

Lowrey et al. further recites:

> a technician working at a vehicle-service center logs into the web site and analyzes the data set corresponding to a particular vehicle to diagnose a potential mechanical or electrical problem (step 30). ...
>
> Based on the analysis, the technician may decide that additional data are required, or that data need to be collected and transmitted at a higher or lower frequency. In this case **the technician uses the web site to select a new schema** (step 32) and then sends an incoming data packet that includes **a new schema over the wireless network to the wireless appliance included in the vehicle being diagnosed** (step 34). ...
>
> **The host vehicle receives the packet** [in which the wireless appliance is already installed] and processes it to extract the new data-collection schema (step 36). The

> wireless appliance uses the **updated schema to extract a revised set of data from the vehicle's engine computer, or send out data at a revised frequency** (step 38). (Col. 7, lines 14-37: Emphasis Added).

In other words, the wireless appliance is installed into the given vehicle with an original schema for that given vehicle. *(See* Exhibit 7, page 6). The schema itself is an "address that describes a location of a diagnostic datum in the vehicle's computer memory". (Col. 2, line 67; and *see also* Exhibit 7, page 6). If the technician reviewing the data transmitted from the wireless appliance to the remote host computer system needs more data, the technician commands the transmission of a new schema for the same given vehicle to collect additional data. In other words, as noted in the Second McAlexander Declaration, the new schema is for collecting more data for the same vehicle. (Exhibit 7, page 6).

Furthermore, the Patent Owner respectfully submits that Lowrey et al. fails to disclose "a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code <u>for use by said multi-vehicle compatible controller</u>", as recited in independent Claim 1, for example. In construing this claim feature, the PTAB noted: "this enabling data enables the recited controller to <u>use a particular vehicle device code from among plural such codes for different vehicles</u> by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to

select or generate the code." (Exhibit 8, Decision on Appeal, Page 12, Emphasis Added; and *see also* Exhibit 7, page 6).

In the final Official Action, the Examiner noted:

> the Office notes that the disclosed data packet containing a new schema is consistent with the Office's interpretation of the claimed "enabling data" as including data that otherwise enables the controller to select or generate the code, since said new schema, which includes the data to collect and its location, enables the wireless appliance to collect that particular data, i.e., to use that particular vehicle device code from among plural such codes for different vehicles corresponding to different schemas). (Page 32).

As detailed above, the technician commands transmission of a new schema while the wireless appliance is installed in the same given vehicle. The schema only commands collection of additional data on the same vehicle. Therefore, Lowrey et al. fails to disclose the claimed enabling data feature.

In the Advisory Action, the Examiner stated: "the district court's construction of the claimed 'enabling data' requires only data relating to a particular vehicle device code. Lowrey's downloaded schema includes such data corresponding to a particular device code corresponding to the vehicle in which the device is currently connected." (Page 7). The Patent Owner submits that this interpretation is improper. Rather, as correctly recognized by the PTAB, "this enabling data enables the

recited controller to use a particular vehicle device code from among plural such codes for different vehicles..." (Exhibit 8, Decision on Appeal, Page 12, Emphasis Added).

In the Advisory Action, the Examiner stated: "[t]he Office also notes that there would be no reason why Lowrey's wireless appliance would download vehicle device codes that were applicable to a vehicle other than the vehicle in which it is currently installed." (Page 7). As pointed out by employees of the Requestor's own customer (CalAmp), the features of the claimed invention were the result of customer need to have multi-vehicle compatibility. (*See infra* §6(II)(F-G)). The "enabling data enables the recited controller to use a particular vehicle device code from among plural such codes for different vehicles", thereby providing the multi-vehicle compatibility. (Exhibit 8, Decision on Appeal, Page 12).

B. The Wireless Appliance of Lowrey et al. Is Not The Multi-Vehicle Compatible Controller As Defined in the Claims

The Patent Owner respectfully submits that Lowrey et al. fails to disclose "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles", as recited in independent Claim 1, for example.

In the final Official Action, the Examiner states:

a multi-vehicle compatible controller (see

> disclosure of the data-collection component of in-vehicle wireless appliance 13, and that said data-collection component includes a microcontroller, col, 6, lines 55-61; see also disclosure that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can easily be transferred from one vehicle to another [i.e., multi-vehicle compatible], col. 4, lines 59-63) for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information.
> (Page 29: Emphasis Added).

Whether the wireless appliance of Lowrey et al. can be physically and electrically installed in different vehicles is not pertinent. Rather, as supported in the Second McAlexander Declaration, Lowrey et al. is operationally compatible with one vehicle, namely the given vehicle whose memory locations correspond to that particular vehicle for which the wireless appliance and associated original schema were designed. (*See* Exhibit 7, page 6). As this Panel of the PTAB will recognize, this is similar to the deficiencies of Chou et al. correctly acknowledged by the PTAB in the related Second *ex parte* Reexamination of the '278 patent. Indeed, the PTAB noted:

> [a]t best, Chou's controller is compatible with one vehicle, namely the particular vehicle whose fault codes correspond to that particular vehicle for which the controller was designed. Accord App. Br. 32 (noting that Chou's ECU s use their own respective trouble codes that are different for different

> vehicles). Although Chou's remote service center can work with different vehicle device codes using a server 201 and repository 203 in Figure 1 as Appellant acknowledges (App. Br. 37), Chou does not teach or suggest providing such a capability in a vehicle. (Exhibit 8, Decision on Appeal, pages 11-12: Emphasis Added).
>
> In the Advisory Action, the Examiner stated:
>
> Patent Owner's position seems to be that this disclosure supports physically installing the unit in a different vehicle, but that once installed in said different vehicle, it could not work.
>
> However, there would be no point to disclosing the unit's ability to be transferred from one vehicle to another unless the unit had the capability to function in that different vehicle. Such a disclosure would be meaningless without the ability for the unit to actually function for its intended purpose once it has been 'easily transferred' from one vehicle to another. This ability is disclosed by virtue of the ability to download a new schema to the unit once installed in the different vehicle. (Page 8: Emphasis Added).

The Patent Owner respectfully submits that the Examiner is reading features into Lowrey et al. that are not disclosed therein. Just like the deficient device of Chou et al., the wireless appliance of Lowrey et al. can be transferred between vehicles,

but it is not operationally compatible with the new vehicle. Rather, as disclosed in Lowrey et al., the schema will generate data and the remote technician will select a new schema, which is transmitted to the wireless appliance. (*See* Col. 7, lines 14-37). For these reasons, the Patent Owner submits that Lowrey et al. fails to disclose "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles", as recited in independent Claim 1, for example.

C. Lowrey Et Al. Teachings Are Similarly Deficient As Chou Et Al.

Lowrey et al., like much of the prior art repeatedly considered in previous reexaminations, discloses an Internet-based vehicle-diagnostic system including a wireless appliance in electrical contact with an in-vehicle computer and that can report position date from a GPS device. (*See* Figure 1, reproduced above).

With respect to independent Claims 1 and 18, the Patent Owner respectfully submits that Lowrey et al. fails to disclose or fairly suggest the claimed features of:

> said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover

> with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and
>
> a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

Rather, Lowrey et al. is very similar in disclosure to the respective primary references applied in the prior four *ex parte* reexaminations of the '278 patent. In short, the typical formula includes combining a vehicle tracker prior art reference with a secondary reference in an attempt to provide the multi-vehicle compatibility.

In the first *ex parte* reexamination of the '278 patent, CalAmp failed in its attempt to invalidate the claims by applying Suman et al. and Spaur et al. (Cell Port Labs patent), and Beckert et al.

In the second *ex parte* reexamination of the '278 patent, CalAmp failed in its attempt to invalidate the claims by applying Chou et al.

In the third *ex parte* reexamination of the '278 patent, CalAmp failed in its attempt to invalidate the claims by applying a Cell Port Labs Press Release, Spelt et al., and the SAE HS-3000 Manuals, and separately over Jones et al. and the SAE HS-3000 Manuals.

In the fourth *ex parte* reexamination of the '278 patent, CalAmp's supplier, the Requester, failed in its attempt

to raise a substantial new question of patentability by applying Flick '551, Brinkmeyer, Monroe, Drori, Space Daily Trimble, Mateja, and Holusha.

In the present *ex parte* reexamination, the Examiner correctly notes that Lowrey et al. fails to disclose or fairly suggest the multi-vehicle features of the claims. In particular, the Examiner noted: "[t]o the extent that Lowrey does not explicitly teach additional details of how the diagnostic data is vehicle-specific, Lightner discloses these additional details at col. 6, lines 26-34 [reproduced portion of Lightner omitted]." (Official Action 6-21-2021, page 14).

The cited portion of the secondary reference to Lightner et al. recites:

> [d]epending on the make and model of the vehicle, the data packet can contain hundreds of datum that describe, e.g.: i) basic properties of the power train (e.g., emission levels, fuel-System Status, engine temperature, Speed and odometer readings, anti-lock brake Status, RPMs, fuel and intake manifold pressure); and ii) manufacturer-specific information (e.g., status of the door locks, airbags, and entertainment center). In total, for most vehicles there are typically more than 300 datum that can be included in the data packet.
> (Col. 6, lines 26-35).

This same deficiency in multi-vehicle compatibility was found within Chou et al., as correctly recognized by the PTAB in the second reexamination of the '278 patent. Indeed, Chou et al.

similarly could be physically and electrically installed in different vehicles. In that second reexamination, the current Requestor's customer also tried to make up for the multi-vehicle compatibility deficiency by relying on references to SAE manuals. The Patent Owner submits that the current rejection is similarly deficient to the rejection over Chou et al. and should be withdrawn.

In the Advisory Action, the Examiner responded that:

> [a]t col. 2, lines 2-3, Lowrey discloses that the in-vehicle wireless appliance 13 (i.e., the claimed multi-vehicle compatible controller) interfaces with other vehicle systems via the OBD-II connector, and furthermore that the OBD-II systems of the vehicle exchange data over a shared, standardized electronic buss which effectively functions as an on-board computer network in the vehicle, including many processors each of which transmits and receives data, col. 1, lines 14-22 et seq. These disclosures alone disclose the claimed "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device."
> (Page 9).

The Patent Owner respectfully submits that Lowrey et al. is similarly deficient to the Chou et al. prior art reference in the second reexamination of the '278 patent. Both Lowrey et al. and Chou et al. are reliant on remote staffed service centers

to configure the vehicle controller to even work with the current vehicle, let alone multiple different vehicles.

Further, in the Advisory Action, the Examiner stated:

> Lowrey discloses that the schema, which defines the data to be collected from the vehicle's engine computer, is specific to a given type of vehicle and is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle, col. 6, lines 62-65 et seq. (Page 10).

In contrast, as previously recognized by the PTAB, the claims of the '278 patent have "enabling data [to] enable[] the recited controller to use a particular vehicle device code from among plural such codes for different vehicles", thereby providing the multi-vehicle compatibility. (Exhibit 8, Decision on Appeal, Page 12: Emphasis Added).

II. Evidence of Secondary Considerations and Declaration Evidence

A. There is Nexus Between The Evidence Of Secondary Considerations Supporting Non-obviousness And The Claimed Invention

In the Final Official Action, the Examiner stated: "[i]n this case, upon consideration of Patent Owner arguments and the statements set forth in the McAlexander Declaration, it has been determined that there is no nexus between the merits of the claimed invention and the submitted evidence." (Official Action

10-5-2021, page 17: Emphasis Added).

As detailed herein, the Patent Owner submits there is nexus between the copious amounts of evidence of secondary considerations supporting non-obviousness and the claimed invention. For example, there is a jury verdict finding the infringement/copying of the '278 patent's claims. (*See* Exhibit 2). This finding of infringement was confirmed by the Federal Circuit. Moreover, the jury verdict found evidence of that the licensing, commercial success, copying by others, and customer need was due to the merits of the claimed invention.

What more, the Jury Verdict indicated the limited value of products without the claimed invention. This finding was supported by the employees of the Requester's customer, who admitted during testimony that they copied the multi-vehicle compatibility of the '278 patent because their customers demanded the feature, and that their product had limited value without the critical multi-vehicle compatibility of the '278 patent. (*See infra* §6(I)(F). Peter Hergesheimer deposition, 46:25 – 47:19, "Do you know whether the LMU3000 would have any value if it didn't work on multiple vehicles? It would have a limited value.").

In the Advisory Action, the Examiner stated:

> [w]ith respect to Patent Owner's secondary considerations arguments, the Office again notes the fact that Lowrey alone discloses that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can be easily transferred from one vehicle to another (thus

> constituting the claimed multi-vehicle compatibility) at col. 4, lines 59-63. (Page 11).

It appears the Examiner is proposing that since Lowrey et al. allegedly discloses a multi-vehicle controller, which the Patent Owner has argued to the contrary above, the Examiner may disregard the substantial amount of evidence of secondary considerations supporting non-obviousness of the claimed invention. This same evidence was found persuasive in both the Jury Trial and by the PTAB in the second reexamination of the '278 patent. Moreover, the Examiner may not disregard the substantial evidence of secondary considerations supporting non-obviousness of the claimed invention in the record of the present reexamination due to an alleged teaching within Lowrey et al. Indeed, the Examiner must carefully consider the evidence found favorable by the Jury and the PTAB and consider where the Patent Owner has rebutted the proposed conclusion of obviousness.

In the Advisory Action, the Examiner stated:

> the fact that a jury and/or court considered 'secondary considerations' relevant to a finding of non-obviousness during previous litigation involving the '278 patent and two other patents is accorded little weight. The jury/court made their determination based upon evidence, including depositions and witness testimony, presented during the district court proceeding. However, that evidence, including depositions and witness testimony, is not of record in the instant reexamination proceeding such that the Office

> can make its own independent analysis and determination. (Page 11).

Again, this same evidence was found persuasive in both the Jury Trial and by the PTAB in the second reexamination of the '278 patent. Moreover, the Patent Owner has entered into the present record:

1. multiple Jury Verdicts from the related litigation with the Requester's customer
2. Final Order from the related litigation with the Requester's customer
3. Multiple Declarations from the technical expert from the from the related litigation with the Requester's customer
4. Decision on Appeal from prior reexamination finding the same evidence "further weighs in favor of Appellant." (Exhibit 8, page 14: Emphasis Added).

B. Introduction

To rebut the Examiner's obviousness rejections, the Patent Owner offers the following secondary considerations supporting non-obviousness. This evidence was presented and considered favorably by the PTAB in the second *ex parte* reexamination of the '278 patent. The PTAB stated that "we add that Appellant's evidence of secondary considerations of non-obviousness, including licensing, commercial success, copying by others, customer need, and the

limited value for accused products without the invention, only further weighs in favor of Appellant." (Exhibit 8, Decision on Appeal, Application Serial No. 90/013,851, page 14: Emphasis Added).

As noted by the Federal Circuit in *Mintz v. Dietz*, 679 F.3d 1372 (Fed. Cir. 2012), the following helpful guidance is provided with respect to the objective criteria of secondary considerations:

> [t]hese objective criteria thus help turn back the clock and place the claims in the context that led to their invention. Technical advance, like much of human endeavor, often occurs through incremental steps toward greater goals. These marginal advances in retrospect may seem deceptively simple, particularly when retracing the path already blazed by the inventor. For these reasons, this court requires consideration of these objective indicia because they "provide objective evidence of how the patented device is viewed in the marketplace, by those directly interested in the product." (*Id.* at 1378; emphasis Added).

Mintz further provides:

> [i]ndeed, where the invention is less technologically complex, the need for Graham findings can be important to ward against falling into the forbidden use of hindsight. Simply because the technology can be easily understood does not mean that it will satisfy the legal standard of obviousness. In fact, objective consideration of simple technology is often the most difficult because, once the

> problem and solution appear together in the patent disclosure, the advance seems self-evident. Instead, the proper analysis requires a form of amnesia that "forgets" the invention and analyzes the prior art and understanding of the problem at the date of invention.
> (*Id.* at 1379; Emphasis Added).

The Patent Owner sets forth below evidence of licensing, commercial success, copying by others, customer need, and limited value of products without the claimed invention.

C. Licensing

The '278 patent in Claim 1, for example, is directed to a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit comprises a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The multi-vehicle compatible tracking unit comprises a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the

multi-vehicle compatible controller.

The Patent Owner points to the following excerpt from the First Jury Verdict form (Exhibit 2) from the related litigation with establishing the merits of the claimed invention and the licenses:

5. **Which of the following factors that tend to indicate nonobviousness, if any, has been established by the evidence with respect to the claimed invention (write the word "yes" in the blank below to any question that you answer "yes" to):**

YES **Did others accept licenses under patents because of the merits of the claimed invention?**

In other words, after observing all of the testimony of the witnesses, reviewing the exhibits presented during trial, and applying the Court's Jury Instructions, the Jury determined that the licenses were based on the merits of the claimed invention, including the '278 patent.

As noted in First McAlexander Declaration (Exhibit 1, paragraph 24(b)), the Patent Owner has received in excess of $70 million in licensing revenue, from the '278 patent and the other asserted patents in the related litigation.

Mr. McAlexander also notes that the '278 patent is one of three patents asserted in the related litigation providing features for multi-vehicle compatibility; and, multi-vehicle compatibility is important for the overall licensing program of

the Patent Owner. (Exhibit 1, paragraph 24(c)).

Mr. McAlexander cites to CalAmps's own employees' trial testimony for the propositions that the multi-vehicle compatibility provides for simplified installation and avoids the need to have multiple SKUs (stock keeping units). (Exhibit 1, paragraph 24(e)). Further details regarding the "customer need" and "limited value" without the multi-vehicle compatibility are provided below.

D. Commercial Success

The Patent Owner respectfully points to the following excerpt from the First Jury Verdict form from the related litigation that provides evidence of commercial success due to the merits of the claimed invention:

5. Which of the following factors that tend to indicate nonobviousness, if any, has been established by the evidence with respect to the claimed invention (write the word "yes" in the blank below to any question that you answer "yes" to):

yes — Were accused products covered by the claim commercially successful due to the merits of the claimed invention rather than due to advertising, promotion, salesmanship, or features of the product other than those found in the claim?

Furthermore, the Jury also determined that the features of the '278 patent were included in the infringing devices of the

Requester's customer (CalAmp) (in both trials). The Jury determined that asserted claims of the '278 patent were infringed. The Jury Verdict evidences that products supplied to CalAmp by the Requester correspond to the claimed invention.

This is the pertinent portion of the Second Jury Verdict form:

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 8	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 11	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 12	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No		
Claim 13	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 14	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 16	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 18	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 19	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 21	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No

As noted in the First McAlexander Declaration, CalAmp was found to infringe with 917,223 units of the accused products. (Exhibit 1, paragraph 24(f)).

Mr. McAlexander also notes that the '278 patent is one of three patents asserted in the related litigation providing features for multi-vehicle compatibility; and, multi-vehicle compatibility is important for the overall licensing program of the Patent Owner. Mr. McAlexander cites to CalAmp's (customer of Requester) own employees' trial testimony for the propositions that the multi-vehicle compatibility provides for simplified installation and avoids the need to have multiple SKUs (stock keeping units). (Exhibit 1, paragraph 24(c) and 24(e)).

E. Copying by Others

Once again, the Patent Owner points to the following excerpt from the First Jury Verdict form from the related litigation that establishes copying:

5. **Which of the following factors that tend to indicate nonobviousness, if any, has been established by the evidence with respect to the claimed invention (write the word "yes" in the blank below to any question that you answer "yes" to):**

YES **Did others copy the claimed invention?**

The Jury's finding of infringement of the asserted

claims of the '278 patent (provided above) establishes that Requester's products supplied to CalAmp correspond to the claimed invention.

F. Customer Need

The Patent Owner directs the Examiner's attention first to the Court's determination in the first trial of the related litigation. In its Final Order, the Court provided:

> Rather than take a license, and choosing not to design around Omega's patents, CalAmp elected to sell infringing products and continues to do so to this day. CalAmp's motivation to engage in this behavior is obvious: their customers wanted this technology and CalAmp [Supplied by the Requester] wanted to provide it. (Exhibit 6, Final Order, page 19; Emphasis Added.)

The First McAlexander Declaration provides that the multi-vehicle accused products in the CalAmp litigation were developed because of "customer need" for a simple installation that did not require splicing of wires. (Exhibit 1, paragraph 24(i)). Mr. McAlexander's position is supported by the following testimony of Mr. Stephen Hall and Mr. Peter Hergesheimer, both CalAmp employees, as follows:

Testimony of CalAmp Employee Stephen Hall

Q. Can you introduce yourself for the record

A. Yes. My name is Stephen Hall. The correct

spelling is S-t-e-p-h-e-n.

Q. All right, sir. And by whom are you employed?

A. I'm an employee of CalAmp Corporation.

Q. Do you have a title at CalAmp?

A. My official title is director of system engineering and technology.

Q. What does it mean to be the director of system engineering and technology at CalAmp?

A. My role is to look at the needs of our customer and market and to match them up with various technologies that are going on in the industry component level and otherwise to make sure that we have an appropriate solution. (Stephen Hall deposition, 6:8-22).

Q. All right, sir. I'm going to hand you what was previously marked as Exhibit 1 to the deposition of Mr. Hergesheimer. Can you tell me what Exhibit 1 is?

A. I'm looking at a CalAmp datasheet for the LMU-3000 product.

Q. And were you involved in the development of the LMU-3000?

A. I was.

Q. And what was your role in developing the LMU-3000?

A. My role on the 3000 was at the CRS level. I provided the requirements document for that. The various blocks within it were predefined by our existing partnerships, and so I didn't do a lot of component selection type of work, so it was really limited just to the CRS document.

Q. Was there a particular market need that you identified leading up to the creation of the CRS for the LMU-3000?

A. The 3000 was driven by a general market need that we heard from a number of customers. The primary interest was coming from a need for a *simple installation type of solution* and the opportunity to enhance the capability of the product that we could offer with certain data items coming off of the vehicle bus.

(Stephen Hall deposition, 6:8-22; and 40:20-41:12; Emphasis Added).

Testimony of CalAmp Employee Peter Hergesheimer

Q. You have been designated as a representative on whether CalAmp has willfully or deliberately infringed in this case. Beyond knowing about the devices and how they operate, do you know anything

about CalAmp's assertions that its actions are not willful or deliberate?

A. I would say from my experience in the development of these devices that there's no willful infringement.

Q. And -- and what's that based on?

A. That's based on knowing where the -- the technology that we use came from and the fact that these were sales-driven requests and somebody had a problem to solve and we went about solving the problem.

Q. What do you mean sales-driven request?

A. Well, typically our -- typically we have a customer that says hey, I would like to do this particular -- have a product that has this feature and so CalAmp goes about designing that product.

Q. So the LMU3000 development was the result of – or was -- was undertaken because customers expressed a demand to CalAmp for these products?

A. I -- I believe that's the case. I can't say specifically for these, but that's in general how our product development works. (Peter Hergesheimer deposition, 40:6 – 41:3).

G. Limited Value for Products Without the Invention

The Examiner's attention is directed to the section above regarding Commercial Success. (*See supra* §6(II)(D)). The Patent Owner asserts that the accused products as covered by the '278 patent would have "limited value" if it were not for multi-vehicle compatibility. CalAmp's own employee, Peter Hergesheimer, testified as follows:

Testimony of CalAmp Employee Peter Hergesheimer

Q. Can you state your name for the record.

A. Peter Hergesheimer.

Q. All right. Sir, and by whom are you employed?

A. CalAmp.

Q. Okay. And what's your position at CalAmp?

A. I'm the senior director of software and architecture in the MRM group. (Peter Hergesheimer deposition, 6:2-8).

Q. Do you know whether the LMU3000 would have any value if it didn't work on multiple vehicles?

A. It would have a limited value.

Q. You would need separate skus for each vehicle;

right?

A. That would be one way of solving that problem.

Q. Is there any other way?

A. Different skus could be different software got loaded onto the same sku.

Q. Okay. So you can -- whether you have a different sku or not, you would need to -- if -- if the LMU3000 was vehicle specific, it would need software for each vehicle in which it was -- separate software for each vehicle in which it was designed to work?

A. Each vehicle type I would guess, yes.

Q. And that would be a more expensive exercise, I would think, from CalAmp's perspective?

A. Yes.

Q. And less desirable than the -- than the option you have now where the LMU is able to service multiple vehicles?

A. Yes, even though it is still pretty painful.

(Peter Hergesheimer deposition, 46:25 – 47:19; Emphasis Added).

In view of the evidence of secondary considerations the Patent Owner submits that any obviousness type rejection of the

pending claims is rebutted.

CONCLUSIONS

In view of the foregoing arguments, it is submitted that all of the claims are patentable over the prior art. Accordingly, the PTAB is respectfully requested to reverse the earlier unfavorable decision by the Examiner.

Respectfully submitted,

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Attorney for Patent Owner

In re Patent Application of:
KENNETH E. FLICK
Reexamination Control No. **90/014,675**
Filed: **2/16/2021**
_____/

CERTIFICATE OF SERVICE

Certificate of Service in compliance with 37 C.F.R. §1.530(c)

Pursuant to 37 C.F.R. §§1.530(c), 1.248, I hereby certify that on April 1, 2022, a complete copy of this Amendment is being served via First Class U.S. Mail upon Third Party Requester at the correspondence address as shown in PAIR:

Mark B. Garred
STETINA BRUNDA GARRED & BRUCKER
75 Enterprise, Suite 250
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Respectfully submitted,

/JACK GEORGE ABID/

_____
Jack G. Abid

PTO/AIA/31 (03-14)
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NOTICE OF APPEAL FROM THE EXAMINER TO THE PATENT TRIAL AND APPEAL BOARD

Docket Number (Optional): (58106CIP1_REX5)

I hereby certify that this correspondence is being facsimile transmitted to the USPTO, EFS-Web transmitted to the USPTO, or deposited with the United States Postal Service with sufficient postage in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, on Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

on _____.

Signature _____

Typed or printed name _____

In re Application of: KENNETH E. FLICK

Application Number	Filed
90/014,675	2/16/2021

For: VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS

Art Unit	Examiner
3992	L. WASSUM

Applicant hereby **appeals** to the Patent Trial and Appeal Board from the last decision of the examiner.

The fee for this Notice of Appeal is (37 CFR 41.20(b)(1)) $ 840

☐ Applicant asserts small entity status. See 37 CFR 1.27. Therefore, the fee shown above is reduced by 50%, and the resulting fee is: $ _____

☐ Applicant certifies micro entity status. See 37 CFR 1.29. Therefore, the fee shown above is reduced by 75%, and the resulting fee is: $ _____
Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.

☐ A check in the amount of the fee is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☐ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. _____.

☑ Payment made via EFS-Web.

☐ A petition for an extension of time under 37 CFR 1.136(a) (PTO/AIA/22 or equivalent) is enclosed.
For extensions of time in reexamination proceedings, see 37 CFR 1.550.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

I am the

☐ applicant ☑ attorney or agent of record Registration number 58,237 ☐ attorney or agent acting under 37 CFR 1.34 Registration number _____

Signature _____

Typed or printed name JACK GEORGE ABID

Telephone Number 407-841-2330

Date 2-4-2022

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.

☐ * Total of _____ forms are submitted.

This collection of information is required by 37 CFR 41.20(b)(1) and 41.31. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

CERTIFICATE OF SERVICE

Certificate of Service in compliance with 37 C.F.R. §1.530(c)

Pursuant to 37 C.F.R. §§1.530(c), 1.248, I hereby certify that on February 4, 2022, a complete copy of this Request is being served via First Class U.S. Mail upon Third Party Requester at the correspondence address as shown in PAIR:

Mark B. Garred
STETINA BRUNDA GARRED & BRUCKER
75 Enterprise, Suite 250
Aliso Viejo, California 92656

Respectfully submitted,

/JACK GEORGE ABID/

Jack G. Abid

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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
90/014,675	**02/04/2022 12:01:56 PM ET**	**CAAMP-001X**

Title of Invention

VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS

Application Information

APPLICATION TYPE	Utility / ex parte reexam	PATENT #	8032278
CONFIRMATION #	7247	FILED BY	Sheryl Scheibe
PATENT CENTER #	60517945	FILING DATE	02/16/2021
CUSTOMER #	27975	FIRST NAMED INVENTOR	- 8032278
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Jack Abid

Documents

TOTAL DOCUMENTS: 1

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
SLS58106CIP1REXNOA.pdf	2	Notice of Appeal Filed	89 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
SLS58106CIP1REXNOA.pdf	C7B825BDF5130B05903AF348B77C4876580996A983B9E9BE0D 2F69ABC431744497AFF34705CAE391E478E866BFD60C1EF3B 31A509A824CA7FC20D006B8DFDA05

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If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC PAYMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
90/014,675	02/04/2022 12:01:56 PM ET	CAAMP-001X

Title of Invention

VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS

Application Information

APPLICATION TYPE	Utility / ex parte reexam	PATENT #	8032278
CONFIRMATION #	7247	FILED BY	Sheryl Scheibe
PATENT CENTER #	60517945	AUTHORIZED BY	Jack Abid
CUSTOMER #	27975	FILING DATE	02/16/2021
CORRESPONDENCE ADDRESS	-	FIRST NAMED INVENTOR	- 8032278

Payment Information

PAYMENT METHOD	PAYMENT TRANSACTION ID	PAYMENT AUTHORIZED BY
CARD / 2004	E202224C02191883	Sheryl Scheibe

FEE CODE	DESCRIPTION	ITEM PRICE($)	QUANTITY	ITEM TOTAL($)
1401	NOTICE OF APPEAL	840.00	1	840.00
			TOTAL AMOUNT:	$840.00

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage

submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,675	02/16/2021	8032278	CAAMP-001X	7247

27975 7590 01/21/2022

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1135 East State Road 434, Suite 3001
Winter Springs, FL 32708

EXAMINER
WASSUM, LUKE S

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
01/21/2022	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Ex Parte Reexamination Advisory Action *Before the Filing of an Appeal Brief*	**Control No.** 90/014,675	**Patent Under Reexamination** 8032278	
	Examiner Luke S Wassum	**Art Unit** 3992	**AIA (FITF) Status** No

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

THE PROPOSED RESPONSE FILED 06 December 2021 FAILS TO OVERCOME ALL OF THE REJECTIONS IN THE FINAL REJECTION MAILED 05 October 2021.

1. ☐ Unless a timely appeal is filed, or other appropriate action by the patent owner is taken to overcome all of the outstanding rejection(s), this prosecution of the present *ex parte* reexamination proceeding WILL BE TERMINATED and a Notice of Intent to Issue *Ex Parte* Reexamination Certificate will be mailed in due course. Any finally rejected claims, or claims objected to, will be CANCELLED.
   THE PERIOD FOR RESPONSE IS EXTENDED TO RUN 4 MONTHS FROM THE MAILING DATE OF THE FINAL REJECTION.
   Extensions of time are governed by 37 CFR 1.550(c).

NOTICE OF APPEAL

2. ☐ An Appeal Brief is due two months from the date of the Notice of Appeal filed on _____ to avoid dismissal of the appeal. See 37 CFR 41.37(a). Extensions of time are governed by 37 CFR 1.550(c). See 37 CFR 41.37(e) .

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final action, but prior to the date of filing a brief, will not be entered because:
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
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   NOTE: _____ (See 37 CFR 1.116 and 41.33(a)).
4. ☐ Patent owner's proposed response filed _____ has overcome the following rejection(s): _____
5. ☐ The proposed new or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
6. ☑ For purposes of appeal, the proposed amendment(s) a) ☐ will not be entered, or b) ☑ will be entered and an explanation of how the new or amended claim(s) would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) patentable and/or confirmed: 2-3 and 12-17
   Claim(s) objected to: _____
   Claim(s) rejected: 1,4-11 and 18-22
   Claim(s) not subject to reexamination: _____

AFFIDAVIT OR OTHER EVIDENCE

7. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____ .
8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because patent owner failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
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10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☑ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Attached .
12. ☐ Note the attached Information Disclosure Statement(s), PTO/SB/08, Paper No(s) _____ .
13. ☐ Other: _____ .

		/LUKE S WASSUM/ Primary Examiner, Art Unit 3992

cc: Requester (if third party requester)

Ex Parte Reexamination Advisory Action

A request for *Ex Parte* Reexamination of claims 1-22 of United States Patent Number 8,032,278 ("the '278 patent") was filed 16 February 2021 ("the Request"). The '278 patent issued to **Kenneth E. Flick** on 4 October 2011, from application number 11/773,272 ("the '272 application"), filed 3 July 2007.

The Office mailed a Decision granting reexamination of claims 1-22 on 25 March 2021.

Claims 1-22 are subject to reexamination.

Request for Reconsideration

(Continued from item 11 of Form PTO-467)

A response to the final Office action ("**Response**") was filed by Patent Owner on 6 December 2021.

The response included remarks, as well as a second § 1.132 Declaration by Joseph C. McAlexander, III ("the **Second McAlexander Declaration**") and a number of supporting exhibits. The claims have not been amended.

Patent Owner has presented a number of arguments with respect to the rejected claims. These arguments are addressed in turn below.

Related Litigation

At section I.A (**Response**, pages 9-10), Patent Owner reviews the history of past litigation involving the '278 patent. There remarks are noted by the Office.

Related Reexaminations

At section I.B (**Response**, pages 11-12), Patent Owner cites past reexamination proceedings in the Office involving the '278 patent and other patents assigned to Omega Patents, LLC. These remarks are noted by the Office.

Patent Owner also argues that the past reexamination filings are duplicative and harassing. However, such issues are addressed through the requirement that any subsequent request for reexamination raise a substantial *new* question of patentability ("SNQ") that is different than those raised in any previous reexamination request. In this case, such an SNQ was raised by the request, by virtue of (at least) the presentation of new, relevant, and non-cumulative prior art that was not previously before the Office with respect to the '278 patent.

Arguments to the contrary are properly addressed through the filing of a petition under 35 U.S.C. § 1.182 as part of the Patent Owner's statement. However, no such statement or petition has been filed in the instant proceeding. See MPEP § 2240.II.

Misleading Information

At section I.C (**Response**, pages 13-14), Patent Owner argues that Requester misleadingly represented to the Office that the **Lowrey** reference was "recently identified."

However, in considering a request for reexamination, the only consideration is whether the art presented raises an SNQ with respect to the requested claims. As discussed above, the **Lowrey** reference was not previously before the Office with respect to the '278 patent, and was non-cumulative to the art presented in previous reexamination requests. As such, it raised an SNQ with respect to the requested claims. See Order Granting Request for *Ex Parte* Reexamination, mailed 25 March 2021.

Whether or not the reference was 'recently identified' by Requester is immaterial to the Office's determination of whether it raises an SNQ with respect to the requested claims.

Patent Owner further requests confirmation of the claims in view of the 'serial harassment' made evident by the alleged 'misleading information'. As discussed

above, however, this issue is properly addressed through the filing of a petition under 35 U.S.C. § 1.182 as part of the Patent Owner's statement. See MPEP § 2240.II.

Grant of Reexamination

At section I.D (**Response**, pages 14-16), Patent Owner argues that the reexamination should not have been ordered because (1) the request fails to present an SNQ, and because (2) the present reexamination represents a pattern of harassment.

However, the Office again notes that this issue is properly addressed through the filing of a petition under 35 U.S.C. § 1.182 as part of the Patent Owner's statement. See MPEP § 2240.II.

Lowrey and **Lightner**

At section III.A.1 (**Response**, pages 17-22), Patent Owner argues that the prior art of record fails to disclose or suggest the claimed invention.

Specifically, Patent Owner argues that in view of the "extremely limited" teachings of the schema, **Lowrey** fails to disclose the claimed downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

The Office respectfully disagrees.

At col. 4, lines 59-63, **Lowrey** discloses that "[t]he wireless device…can be easily installed in nearly every vehicle with an OBD-II connector in a matter of minutes", and that "[i]t can also be easily transferred from one vehicle to another."

This disclosure alone demonstrates that the disclosed wireless device is a "multi-vehicle compatible controller." The Office notes that the term 'multi-vehicle compatible controller' is being interpreted as "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle", consistent with district court's construction of the term in the related litigation. **Lowrey's** wireless device satisfies this definition by virtue of the disclosure that it can be easily transferred from one vehicle to another.

With respect to Patent Owner's argument that **Lowrey** fails to disclose the claimed 'downloading of enabling data', the Office notes that the term 'enabling data' is interpreted as "data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller, and which enables the controller to use a *particular* vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code." The disclosed data packet containing a

new schema (see col. 7, lines 14-43 et seq.) is consistent with the Office's interpretation of the claimed 'enabling data' as including 'data that otherwise enables the controller to select or generate the [vehicle device] code', since said new schema, which includes the data to collect and its location, enables the wireless appliance to collect that particular data, i.e., to use that particular vehicle device code from among plural such codes for different vehicles corresponding to different schemas.

Patent Owner argues that the schema downloaded to **Lowrey's** wireless appliance does not qualify as the claimed 'enabling data' because the schema only includes commands for a single vehicle. However, the district court's construction of the claimed 'enabling data' requires only data relating to *a particular* vehicle device code. **Lowrey's** downloaded schema includes such data corresponding to a particular device code corresponding to the vehicle in which the device is currently connected.

The Office also notes that there would be no reason why **Lowrey's** wireless appliance would download vehicle device codes that were applicable to a vehicle other than the vehicle in which it is currently installed. This in no way, however, contradicts the explicit teaching that "[t]he wireless device…can be easily installed in nearly every vehicle with an OBD-II connector in a matter of minutes", and that "[i]t can also be easily transferred from one vehicle to another", a teaching that makes explicit the fact that the disclosed device is 'multi-vehicle compatible.'

At section III.A.2 (**Response**, pages 22-23), Patent Owner essentially argues that the prior art of record fails to disclose the claimed multi-vehicle compatible controller, because **Lowrey's** disclosure only supports physically and electrically installing the unit in different vehicles, not that the controller would actually work in said different vehicles once installed.

The Office respectfully disagrees.

As noted above, **Lowrey** discloses a wireless appliance that can be easily installed in nearly every vehicle with an OBD-II connector in a matter of minutes, and can easily be transferred from one vehicle to another. Patent Owner's position seems to be that this disclosure supports physically installing the unit in a different vehicle, but that once installed in said different vehicle, it could not work.

However, there would be no point to disclosing the unit's ability to be transferred from one vehicle to another unless the unit had the capability to function in that different vehicle. Such a disclosure would be meaningless without the ability for the unit to actually function for its intended purpose once it has been 'easily transferred' from one vehicle to another. This ability is disclosed by virtue of the ability to download a new schema to the unit once installed in the different vehicle.

At section III.A.3 (**Response**, pages 23-26), Patent Owner argues that the prior art of record is similar to that applied during previous reexaminations, and similarly fails to disclose the claimed invention.

The Office respectfully disagrees.

At col. 2, lines 2-3, **Lowrey** discloses that the in-vehicle wireless appliance **13** (i.e., the claimed multi-vehicle compatible controller) interfaces with other vehicle systems via the OBD-II connector, and furthermore that the OBD-II systems of the vehicle exchange data over a shared, standardized electronic buss which effectively functions as an on-board computer network in the vehicle, including many processors each of which transmits and receives data, col. 1, lines 14-22 et seq. These disclosures alone disclose the claimed "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device."

With respect to the claimed 'corresponding vehicle device code', **Lowrey** additionally discloses a data-collection schema which is essentially a map that describes the data that the wireless appliance collects from the vehicle's engine computer and its corresponding location in the computer's memory (col. 6, lines 54-62 et seq.), and that some of the data retrieved comprises diagnostic trouble codes [DTCs] that indicate a

specific problem with the vehicle (col. 1, lines 31-36 and col. 1, line 63 through col. 2, line 14 et seq.).

The Office notes that consistent with the claim construction previously applied by the PTAB (as discussed above in the Claim Construction section), the claimed "vehicle device code" is interpreted as "a signal to or from a vehicle device." The diagnostic data collected from the engine computer (i.e., signals from a vehicle device), as well as the queries defined by the data-collection schema that specify which diagnostic data is to be retrieved from the engine computer (i.e., signals to a vehicle device), are both consistent with the Office's interpretation of the claimed 'vehicle device codes' as 'a signal to or from a vehicle device'.

With respect to the claimed limitation that the vehicle device codes are "from among a plurality for different vehicles", **Lowrey** discloses that the schema, which defines the data to be collected from the vehicle's engine computer, is *specific to a given type of vehicle* and is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle, col. 6, lines 62-65 et seq.

The pending claim rejections are maintained.

Secondary Considerations

At section III.B (**Response**, pages 26-39), Patent Owner argues that secondary considerations support their allegation of the non-obviousness of the claimed invention, specifically with respect to the claimed feature of multi-vehicle compatibility. These arguments are substantially similar to those presented in Patent Owner's response to non-final action, and have been addresses in the final rejection mailed 5 October 2021.

With respect to Patent Owner's secondary considerations arguments, the Office again notes the fact that **Lowrey** alone discloses that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can be easily transferred from one vehicle to another (thus constituting the claimed multi-vehicle compatibility) at col. 4, lines 59-63.

It is further noted that the fact that a jury and/or court considered 'secondary considerations' relevant to a finding of non-obviousness during previous litigation involving the '278 patent and two other patents is accorded little weight. The jury/court made their determination based upon evidence, including depositions and witness testimony, presented during the district court proceeding. However, that evidence, including depositions and witness testimony, is not of record in the instant reexamination proceeding such that the Office can make its own independent analysis and determination.

/LUKE S WASSUM/
Primary Examiner, Art Unit 3992

Conferees:

/Stephen J. Ralis/
Primary Examiner, Art Unit 3992

Michael Fuelling /MF/
Supervisory Patent Examiner
Art Unit 3992

lsw
13 January 2022

Reexamination	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90/014,675	8032278
	Certificate Date	Certificate Number

Requester Correspondence Address: ☐ Patent Owner ☑ Third Party
STETINA BRUNDA GARRED & BRUCKER 75 ENTERPRISE SUITE 250 ALISO VIEJO, CA 92656

LITIGATION REVIEW ☑	lsw (examiner initials)	18 February 2021 (date)
Case Name		Director Initials
Omega Patents, LLC v. Enfora, Inc, 1:17cv2769 (closed)		
Omega Patents, LLC v. CalAmp Corp., 6:13cv1950 (closed)		

COPENDING OFFICE PROCEEDINGS	
TYPE OF PROCEEDING	NUMBER
Ex Parte Reexamination	90/014,419

OK to enter.
4 January 2022
/lsw/

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: **KENNETH E. FLICK**	
Request for Reexamination of **8,032,278**	
Control No. **90/014,675**	Attorney Docket No.: **(58106CIP1_REX5)**
Confirmation No. **7247**	
Filing Date: **2/16/2021**	Examiner: **L. WASSUM**
For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	Art Unit: **3992**

RESPONSE TO THE FINAL
OFFICIAL ACTION MAILED OCTOBER 5, 2021
IN EX PARTE REEXAMINATION

EFILE
Commissioner for Patents

Dear Commissioner:

Responsive to the Final Official Action of October 5, 2021, please enter the amendments and remarks set out below.

If any fee is required, authorization is given to charge Deposit Account No. 01-0484.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,675	02/16/2021	8032278	CAAMP-001X	7247

27975 7590 01/11/2022

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1135 East State Road 434, Suite 3001
Winter Springs, FL 32708

EXAMINER
WASSUM, LUKE S

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
01/11/2022	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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	Examiner Luke S Wassum	**Art Unit** 3992	**AIA (FITF) Status** No

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

THE PROPOSED RESPONSE FILED 06 December 2021 FAILS TO OVERCOME ALL OF THE REJECTIONS IN THE FINAL REJECTION MAILED 05 October 2021.

1. ☑ Unless a timely appeal is filed, or other appropriate action by the patent owner is taken to overcome all of the outstanding rejection(s), this prosecution of the present *ex parte* reexamination proceeding WILL BE TERMINATED and a Notice of Intent to Issue *Ex Parte* Reexamination Certificate will be mailed in due course. Any finally rejected claims, or claims objected to, will be CANCELLED.
   THE PERIOD FOR RESPONSE IS EXTENDED TO RUN 3 MONTHS FROM THE MAILING DATE OF THE FINAL REJECTION.
   Extensions of time are governed by 37 CFR 1.550(c).

NOTICE OF APPEAL

2. ☐ An Appeal Brief is due two months from the date of the Notice of Appeal filed on _____ to avoid dismissal of the appeal. See 37 CFR 41.37(a). Extensions of time are governed by 37 CFR 1.550(c). See 37 CFR 41.37(e) .

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final action, but prior to the date of filing a brief, will not be entered because:
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
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REQUEST FOR RECONSIDERATION/OTHER

11. ☑ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Attachment .
12. ☐ Note the attached Information Disclosure Statement(s), PTO/SB/08, Paper No(s) _____ .
13. ☐ Other: _____ .

		/LUKE S WASSUM/ Primary Examiner, Art Unit 3992

cc: Requester (if third party requester)

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The Office mailed a Decision granting reexamination of claims 1-22 on 25 March 2021.

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(Continued from item 11 of Form PTO-467)

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At section I.C (**Response**, pages 13-14), Patent Owner argues that Requester misleadingly represented to the Office that the **Lowrey** reference was "recently identified."

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Whether or not the reference was 'recently identified' by Requester is immaterial to the Office's determination of whether it raises an SNQ with respect to the requested claims.

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Lowrey and **Lightner**

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The Office respectfully disagrees.

At col. 4, lines 59-63, **Lowrey** discloses that "[t]he wireless device…can be easily installed in nearly every vehicle with an OBD-II connector in a matter of minutes", and that "[i]t can also be easily transferred from one vehicle to another."

This disclosure alone demonstrates that the disclosed wireless device is a "multi-vehicle compatible controller." The Office notes that the term 'multi-vehicle compatible controller' is being interpreted as "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle", consistent with district court's construction of the term in the related litigation. **Lowrey's** wireless device satisfies this definition by virtue of the disclosure that it can be easily transferred from one vehicle to another.

With respect to Patent Owner's argument that **Lowrey** fails to disclose the claimed 'downloading of enabling data', the Office notes that the term 'enabling data' is interpreted as "data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller, and which enables the controller to use a *particular* vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code." The disclosed data packet containing a

new schema (see col. 7, lines 14-43 et seq.) is consistent with the Office's interpretation of the claimed 'enabling data' as including 'data that otherwise enables the controller to select or generate the [vehicle device] code', since said new schema, which includes the data to collect and its location, enables the wireless appliance to collect that particular data, i.e., to use that particular vehicle device code from among plural such codes for different vehicles corresponding to different schemas.

Patent Owner argues that the schema downloaded to **Lowrey's** wireless appliance does not qualify as the claimed 'enabling data' because the schema only includes commands for a single vehicle. However, the district court's construction of the claimed 'enabling data' requires only data relating to *a particular* vehicle device code. **Lowrey's** downloaded schema includes such data corresponding to a particular device code corresponding to the vehicle in which the device is currently connected.

The Office also notes that there would be no reason why **Lowrey's** wireless appliance would download vehicle device codes that were applicable to a vehicle other than the vehicle in which it is currently installed. This in no way, however, contradicts the explicit teaching that "[t]he wireless device…can be easily installed in nearly every vehicle with an OBD-II connector in a matter of minutes", and that "[i]t can also be easily transferred from one vehicle to another", a teaching that makes explicit the fact that the disclosed device is 'multi-vehicle compatible.'

At section III.A.2 (**Response**, pages 22-23), Patent Owner essentially argues that the prior art of record fails to disclose the claimed multi-vehicle compatible controller, because **Lowrey's** disclosure only supports physically and electrically installing the unit in different vehicles, not that the controller would actually work in said different vehicles once installed.

The Office respectfully disagrees.

As noted above, **Lowrey** discloses a wireless appliance that can be easily installed in nearly every vehicle with an OBD-II connector in a matter of minutes, and can easily be transferred from one vehicle to another. Patent Owner's position seems to be that this disclosure supports physically installing the unit in a different vehicle, but that once installed in said different vehicle, it could not work.

However, there would be no point to disclosing the unit's ability to be transferred from one vehicle to another unless the unit had the capability to function in that different vehicle. Such a disclosure would be meaningless without the ability for the unit to actually function for its intended purpose once it has been 'easily transferred' from one vehicle to another. This ability is disclosed by virtue of the ability to download a new schema to the unit once installed in the different vehicle.

At section III.A.3 (**Response**, pages 23-26), Patent Owner argues that the prior art of record is similar to that applied during previous reexaminations, and similarly fails to disclose the claimed invention.

The Office respectfully disagrees.

At col. 2, lines 2-3, **Lowrey** discloses that the in-vehicle wireless appliance **13** (i.e., the claimed multi-vehicle compatible controller) interfaces with other vehicle systems via the OBD-II connector, and furthermore that the OBD-II systems of the vehicle exchange data over a shared, standardized electronic buss which effectively functions as an on-board computer network in the vehicle, including many processors each of which transmits and receives data, col. 1, lines 14-22 et seq. These disclosures alone disclose the claimed "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device."

With respect to the claimed 'corresponding vehicle device code', **Lowrey** additionally discloses a data-collection schema which is essentially a map that describes the data that the wireless appliance collects from the vehicle's engine computer and its corresponding location in the computer's memory (col. 6, lines 54-62 et seq.), and that some of the data retrieved comprises diagnostic trouble codes [DTCs] that indicate a

specific problem with the vehicle (col. 1, lines 31-36 and col. 1, line 63 through col. 2, line 14 et seq.).

The Office notes that consistent with the claim construction previously applied by the PTAB (as discussed above in the Claim Construction section), the claimed "vehicle device code" is interpreted as "a signal to or from a vehicle device." The diagnostic data collected from the engine computer (i.e., signals from a vehicle device), as well as the queries defined by the data-collection schema that specify which diagnostic data is to be retrieved from the engine computer (i.e., signals to a vehicle device), are both consistent with the Office's interpretation of the claimed 'vehicle device codes' as 'a signal to or from a vehicle device'.

With respect to the claimed limitation that the vehicle device codes are "from among a plurality for different vehicles", **Lowrey** discloses that the schema, which defines the data to be collected from the vehicle's engine computer, is *specific to a given type of vehicle* and is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle, col. 6, lines 62-65 et seq.

The pending claim rejections are maintained.

Secondary Considerations

At section III.B (**Response**, pages 26-39), Patent Owner argues that secondary considerations support their allegation of the non-obviousness of the claimed invention, specifically with respect to the claimed feature of multi-vehicle compatibility. These arguments are substantially similar to those presented in Patent Owner's response to non-final action, and have been addresses in the final rejection mailed 5 October 2021.

With respect to Patent Owner's secondary considerations arguments, the Office again notes the fact that **Lowrey** alone discloses that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can be easily transferred from one vehicle to another (thus constituting the claimed multi-vehicle compatibility) at col. 4, lines 59-63.

It is further noted that the fact that a jury and/or court considered 'secondary considerations' relevant to a finding of non-obviousness during previous litigation involving the '278 patent and two other patents is accorded little weight. The jury/court made their determination based upon evidence, including depositions and witness testimony, presented during the district court proceeding. However, that evidence, including depositions and witness testimony, is not of record in the instant reexamination proceeding such that the Office can make its own independent analysis and determination.

/LUKE S WASSUM/
Primary Examiner, Art Unit 3992

Conferees:

/Stephen J. Ralis/
Primary Examiner, Art Unit 3992

Michael Fuelling /MF/
Supervisory Patent Examiner
Art Unit 3992

lsw
15 December 2021

Reexamination	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90/014,675	8032278
	Certificate Date	Certificate Number

Requester Correspondence Address: ☐ Patent Owner ☑ Third Party
STETINA BRUNDA GARRED & BRUCKER 75 ENTERPRISE SUITE 250 ALISO VIEJO, CA 92656

LITIGATION REVIEW ☑	lsw (examiner initials)	18 February 2021 (date)
Case Name		Director Initials
Omega Patents, LLC v. Enfora, Inc, 1:17cv2769 (closed)		
Omega Patents, LLC v. CalAmp Corp., 6:13cv1950 (closed)		

COPENDING OFFICE PROCEEDINGS	
TYPE OF PROCEEDING	NUMBER
Ex Parte Reexamination	90/014,419

OK to enter.
4 January 2022
/lsw/

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: **KENNETH E. FLICK** Request for Reexamination of **8,032,278** Control No. **90/014,675** Confirmation No. **7247** Filing Date: **2/16/2021** For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	Attorney Docket No.: **(58106CIP1_REX5)** Examiner: **L. WASSUM** Art Unit: **3992**

RESPONSE TO THE FINAL
OFFICIAL ACTION MAILED OCTOBER 5, 2021
IN EX PARTE REEXAMINATION

EFILE
Commissioner for Patents

Dear Commissioner:

Responsive to the Final Official Action of October 5, 2021, please enter the amendments and remarks set out below.

If any fee is required, authorization is given to charge Deposit Account No. 01-0484.

Litigation Search Report CRU 3999

Reexamination Control No. 90/014,675

To:	WASSUM, Luke	**From:**	GRAVES, Monica A.
Location:	OCRU	**Location:**	OCRU
Art Unit:	3992	**Phone:**	2-7253
Date:	07 January 2022	**E-mail:**	monica.graves@uspto.gov

Search Notes

US PATENT NO; 8,032,278 - Litigation found

1. Performed a KeyCite Search in Westlaw, which retrieves all history on the patent including any litigation.
2. Performed a search on the patent in Lexis CourtLink for any open dockets or closed cases.
3. Performed a search in Lexis in the Federal Courts and Administrative Materials databases for any cases found.
4. Performed a search in Lexis in the IP Journal and Periodicals database for any articles on the patent.
5. Performed a search in Lexis in the news databases for any articles about the patent or any articles about litigation on this patent.

Paper No. 20220107

Citing References (109)

Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**1. Omega Patents, LLC v. Calamp Corp.** 2015 WL 12830497, *1+ , M.D.Fla. , (NO. 613CV1950ORL40DAB) This cause comes before the Court without oral argument on the following: 1. Plaintiff's Motion and Memorandum for Summary Judgment as to Validity, Infringement, Enforceability and... ... the '876 Patent")U.S. Patent No. 6,737,989 ("the '989 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") (collectively, the "patents-in-suit"). (Doc. 1). The patents-in-suit relate to control systems for vehicles with a ...	Dec. 23, 2015	Case		—
Examined by	**2. Patent Owner's Appeal Brief** Ex Parte OMEGA PATENTS, L.L.C. 2019 WL 8888301, *1+ , Bd.Pat.App. & Interf. (Administrative Filing) , (NO. APP90/014,121) ... CONTENTS I. Real Party in Interest 4 II. Related Appeals, Interferences, and Trials 4 A. Related Appeals 4 1. Appeal in Reexamination 90/013,851 for U.S. Patent No. 8,032,278 resulting in favorable PTAB decision and Reexamination Certificate issued February 6, 2019; 4 2. Appeal in Reexamination 90/014,122 for U.S. Patent ...	July 12, 2019	Administrative Filing		—
Examined by	**3. Patent Owner's Appeal Brief** EX PARTE OMEGA PATENTS, LLC et al. 2019 WL 8587347, *1+ , Bd.Pat.App. & Interf. (Administrative Filing) , (NO. APP90/014,122) ... CONTENTS(1) Real Party In Interest 8(2) Related Appeals, Interferences, And Trials 8 I. Related Appeals 8 A. First Related Appeal (Second Reexamination Of U.S. Patent No. 8,032,278 8 B. Second Related Appeal (Second Reexamination Of U.S. Patent No. 6, 756,885 10 II. Related Trials 11 A. First Trial 11 ...	May 15, 2019	Administrative Filing		—
Examined by	**4. Patent Owner's Supplemental Appeal Brief** Ex Parte Omega Patents, L.L.C. 2018 WL 6257407, *1+ , Patent Tr. & App. Bd. (Administrative Filing) , (NO. APPLICATION90/013851) ... Interferences, and Trials At present there are no related appeals, or interferences. There are two related trials.I. First Trial In the first trial, the ' 278 patent was subject to a litigation between the Requester and the Patent Owner. The Patent Owner filed its complaint alleging patent infringement against the Requester ...	Feb. 27, 2018	Administrative Filing		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**5. Patent Owner's Appeal Brief** Ex Parte Omega Patents, L.L.C. 2018 WL 6257406, *1+ , Patent Tr. & App. Bd. (Administrative Filing) , (NO. APPLICATION90/013851) ... interferences, and Trials At present there are no related appeals, or interferences. There are two related trials.I. First Trial In the first trial, the ' 278 patent was subject to a litigation between the Requester and the Patent Owner. The Patent Owner filed its complaint alleging patent infringement against the Requester ...	Jan. 17, 2018	Administrative Filing		—
Examined by	**6. Appellants' Appeal Brief** Ex Parte Kenneth E. Flick. 2015 WL 13545129, *1+ , Patent Tr. & App. Bd. (Administrative Filing) , (NO. APPLICATION13/826752) ... al.The Examiner rejected independent Claims 1, 21, 39, 50, 70, and 88 over a four-way combination of U.S. Patent No. 8,362,886 to Flick, U.S. Patent No. 8,032,278 to Flick, Reinold et al., and Fein et al., with two of the four references having common inventorship with the present application ...	Sep. 17, 2015	Administrative Filing		—
Examined by	**7. Cross-Appellant/Appellee Omega Patents, LLC's Principal and Response Brief** OMEGA PATENTS, LLC, Plaintiff/Cross-Appellant, v. CALAMP CORP., Defendant/Appellant. 2020 WL 4933794, *1+ , Fed.Cir. (Appellate Brief) , (NO. 2020-1793 , 2020-1794) ... Appx14-22) Omega appeals the order awarding post-verdict royalties. CalAmp's appeal involves two of the asserted patents, U.S. Patent Nos. 6,756,885 ("'885 patent") and 8,032,278 ("'278 patent ")There are no current cases in which either of the two patents are being asserted. The '885 patent expired on August 22, 2016 ...	Aug. 21, 2020	Brief		—
Examined by	**8. Opening Brief of Defendant-Appellant Calamp Corp.** OMEGA PATENTS, LLC, Plaintiff-Cross-Appellant, v. CALAMP CORP., Defendant-Appellant. 2020 WL 4048275, *1+ , Fed.Cir. (Appellate Brief) , (NO. 2020-1793 , 2020-1794) ... that CalAmp's Customers Infringed the '885 Patent Should Be Vacated 32 II. CALAMP IS ENTITLED TO JMOL THAT THE ACCUSED LMUs DO NOT INFRINGE THE ' 278 PATENT OR, AT LEAST, A NEW TRIAL 36 A. Omega's Improper Claim Construction Arguments Tainted the Jury's Consideration of the ' 278 Patent 's "Corresponding Vehicle ...	July 13, 2020	Brief		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**9. Corrected Opening Brief of Defendant-Appellant CalAmp Corp.** OMEGA PATENTS, LLC, Plaintiff-Appellee, v. CALAMP CORP., Defendant-Appellant. 2018 WL 2045178, *1+ , Fed.Cir. (Appellate Brief) , (NO. 18-1309) ... Device." 20 II. THE ACCUSED PRODUCTS DO NOT INFRINGE OMEGA'S PATENTS. 21 A. The Accused Products Do Not Satisfy The "Device Codes" Limitations Of The ' 278 '885, And '876 Patents 22 1. The accused products do not use a vehicle device code as required by the ' 278 patent 22 2. The ...	Apr. 25, 2018	Brief		—
Examined by	**10. Declaration of Eric Andrews in Support of Defendant Calamp Corp.'s Motion for Summary Judgment of Noninfringement** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 12856650, *1+ , M.D.Fla. (Expert Report and Affidavit) , (NO. 613-CV-1950-PGB-DAB) ... asserted patents in this matter, U.S. Patent Nos. 6,346,876 (the '876 patent)6,737,989 (the '989 patent)6,756,885 (the '885 patent)7,671,727 (the '727 patent), and 8,032,278 (the '278 patent) along with the file histories for the asserted patents. I am informed that copies of the asserted patents were attached as Exhibits ...	July 01, 2015	Expert Materials		—
Examined by	**11. Expert Report of Eric Andrews Regarding Invalidity** OMEGA PATENTS, LLC., v. CALAMP CORP. 2015 WL 12856648, *1+ , M.D.Fla. (Expert Report and Affidavit) , (NO. 613-CV-01950-PGB-DAB) ... over '074 Spaur and SAE J1979 78 6.7 Invalidity of '727 over NeoTech Mobile-Trak II and SAE J1979 90 6.8 Invalidity of ' 278 over '392 Bambini and SAE J1978 100 6.9 Invalidity of ' 278 over '074 Spaur 154 1. Introduction I have been advised that there is ...	Apr. 15, 2015	Expert Materials		—
Examined by	**12. Plaintiff's Motion and Memorandum for Judgment of Infringement of Vpod Units under Rule 59** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2019 WL 8331710, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL40DCI) ... material respects to the Infringing LMUs. On September 30, 2019, the jury returned a verdict in favor of Omega finding the LMU products directly infringe U.S. Patent No. 8,032,278 ("the '278 Patent ") However, contrary to the undisputed evidence, the jury found the identically-functioning VPODs somehow did not infringe the ' 278 ...	Dec. 23, 2019	Motion		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**13. Calamp Corp.'s Combined Motion for Judgment as a Matter of Law, for a New Trial, and for a Remittitur of Damages** OMEGA PATENTS, LLC, Plaintiff, v. CALAMP CORP., Defendant. 2019 WL 8331711, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 6:13-CV-1950-PGB-DCI) ... CalAmp's accused LMU-3000, LMU-3030, and LMU-3050 products ("the Accused LMUs") do not directly infringe U.S. Patent Nos. 6,756,885 ("the '885 patent") and 8,032,278 ("the '278 patent ")[FN1] The jury's contrary findings of direct infringement for the '885 patent (by CalAmp's customers) and the ' 278 patent (by CalAmp) not ...	Dec. 23, 2019	Motion		—
Examined by	**14. Plaintiff's Motion and Memorandum for an Award of Attorneys Fees** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2019 WL 8331712, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL40DCI) ... the claims of U.S. Patent No. 6,346,876 ("the '876 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") The totality of CalAmp's actions render this case an exceptional case under 35 U.S.C. § 285 and support an ...	Dec. 23, 2019	Motion		—
Examined by	**15. Plaintiff's Reply in Support of Its Motion for Summary Judgment as to Validity, Infringement, Enforceability, and Unfair Competition** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 10478030, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL40DAB) ... signals" and "device code." (Doc. 76, p. 7.) In response to Omega's motion for validity, Calamp first argues (contrary to its own expert) that the ' 278 patent is anticipated. Calamp then argues (without evidence) that one of skill in the art would combine the disparate references[FN2] using the patent claims ...	Aug. 03, 2015	Motion		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**16. Plaintiff's Motion and Memorandum for Summary Judgment As to Validity, Infringement, Enforceability and Unfair Competition** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 7687819, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL31DAB) ... of infringement of five patents: U.S. Patent Nos. 6,346,876 ("the '876 patent")6,737,989 ("the '989 Patent")6,756,885 ("the '885 patent")7,671,727 ("the '727 Patent"); and 8,032,278 ("the '278 patent ") (collectively referred to herein as the "patents-in-suit" and attached as Exhibits 1-5 in the Appendix). [FN1] In this motion ...	July 01, 2015	Motion		—
Examined by	**17. Defendant CalAmp Corp.'s Opening Claim Construction Brief** OMEGA PATENTS, LLC, a Georgia Limited Liability Company, Plaintiff, v. CALAMP CORP., a Delaware Corporation, Defendant. 2014 WL 7691270, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV01950PGBDAB) ... in this case: U.S. Pat. Nos. 6,346,876 ("the #876 patent"); 6,737,989 ("the #989 patent"); 6,756,885 ("the #885 patent"); 7,671,727 ("the #727 patent"); and 8,032,278 ("The # 278 patent The following tree shows the inter-relation between the patents-in-suit (shown in bold):TABLE The patents-in-suit are all based on ...	Sep. 05, 2014	Motion		—
Examined by	**18. Defendant Enfora, Inc.'s Memorandum of Law in Support of its Motion for a Stay Pending Reexamination** OMEGA PATENTS, LLC, a Georgia Limited Liability Company, Plaintiff, v. ENFORA, INC., a Delaware Corporation, Defendant. 2017 WL 7048395, *1+ , N.D.Ga. (Trial Motion, Memorandum and Affidavit) , (NO. 1:17-CV-02769-TWT) ... any scheduling orders or set a Markman hearing or trial date.B. The Asserted Patents In its FAC, Plaintiff asserts infringement of three patents: (1) U.S. Patent No. 8,032,278 (the "#278 Patent "), (2) U.S. Patent No. 6,756,885 (the "#885 Patent"), and (3) U.S. Patent No. 6,346,876 (the "#876 Patent") Dkt. No ...	Nov. 13, 2017	Motion		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Discussed by	**19. Omega Patents, LLC v. Calamp Corp.** 2016 WL 7240311, *1+ , M.D.Fla. , (NO. 613CV1950ORL40DAB) This cause comes before the Court on the following: 1. Defendant CalAmp Corp.'s Motion That U.S. Patent Nos. '876, '885, '727, and '278 Are Not Entitled To Any Priority Date... ... STATES DISTRICT JUDGE This cause comes before the Court on the following:1. Defendant CalAmp Corp.'s Motion That U.S. Patent Nos. '876'885'727, and ' 278 Are Not Entitled To Any Priority Date Earlier Than Their Actual Filing Dates (Doc. 95), filed September 29, 2015; and 2. Plaintiff Omega Patents, LLC's ...	Jan. 13, 2016	Case		—
Discussed by	**20. EX PARTE OMEGA PATENTS, L.L.C. PATENT OWNER AND APPELLANT** 2019 WL 7184387, *2+ , Patent Tr. & App. Bd. , (NO. APPEAL 2019-006299 , PATENT 6,346,876 B1 , REEXAMINATION CONTRO , TECHNOLOGY CENTER 39) Appellant appeals under 35 U.S.C. §§ 134 and 306 the Examiner's decision to reject claims 1-11, 13-26, 29-32, and 42-50. We have jurisdiction under 35 U.S.C. §§ 134 and 306, and... ... PROCEEDINGS This appeal is said to be related to various proceedings. First, Appellant informs us of two related appeals in connection with reexamination proceedings involving U.S. Patents 8,032,278 ("the '278 patent ") and 6,756,885 ("the '885 patent") Appeal Br. 8-11. [FN2] In the appeal involving the 278 patent in connection with ...	Dec. 04, 2019	Administrative Decision		—
Discussed by	**21. Appellant's Reply Brief** Ex Parte OMEGA PATENTS, L.L.C. 2019 WL 8888302, *1+ , Bd.Pat.App. & Interf. (Administrative Filing) , (NO. APP90/014,121) ... has filed follow-on reexamination requests against three other patents of the Patent Owner. And, not content with the PTAB's favorable decision in the second ' 278 patent reexam, Requester has now filed yet a third request for reexamination of the ' 278 patent The following is the list of the reexaminations and ...	Oct. 15, 2019	Administrative Filing		—
Discussed by	**22. Calamp Corp.'s First Amended Counterclaim** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff/Counterdefendant, v. CALAMP CORP., a Delaware corporation, Defendant/ Counterplainti... 2014 WL 11209166, *1+ , M.D.Fla. (Trial Pleading) , (NO. 6:13-CV-1950-GAP-DAB) ... real, and justiciable controversy exists between Counterclaimant CalAmp and Counterdefendant Omega pertaining to U.S. Patent Nos. 6,346,876 B1 6,737,989 B2 6,756,885 B1 7,671,727 B2; and 8,032,278 B2 ("Patents-in-Suit "), which have been asserted by Omega.FACTS The Patents-in-Suit 7. On December 20, 2013, Plaintiff/Counterdefendant Omega filed a ...	Feb. 24, 2014	Petition		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Discussed by	**23. Plaintiff's Motion and Memorandum for a New Trial on Willfulness under Rule 59** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2019 WL 8331709, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL40DCI) ... the claims of U.S. Patent No. 6,346,876 ("the '876 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") The first trial of this matter began on February 16, 2016, and concluded on February 24, 2016, (Dkt. 178 ...	Dec. 23, 2019	Motion		—
Discussed by	**24. Defendant Calamp Corp.'s Motion for Summary Judgment of Noninfringement** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 10477983, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 6:13-CV-1950-PGB-DAB) ... 876 and '885) directed toward the vehicle bus claim priority back to an alarm system patent, while the other two vehicle bus patents ('727 and ' 278) and the vehicle tracking patent ('989) claim priority back to a plethora of provisional patents generally regarding vehicle tracking. Because of their common lineage, the ...	July 01, 2015	Motion		—
Discussed by	**25. Defendant Enfora, Inc.'s Reply Memorandum in Support of Its Motion for a Stay Pending Reexamination** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. ENFORA, INC., a Delaware Corporation, Defendant. 2017 WL 7735654, *1+ , N.D.Ga. (Trial Motion, Memorandum and Affidavit) , (NO. 1:17-CV-02769-TWT) ... await the final determinations of the USPTO and the issuance of the reexamination certificates.FN1. Omega asserts infringement of three patents in its FAC: (1) U.S. Patent No. 8,032,278 (the "'278 Patent "), (2) U.S. Patent No. 6,756,885 (the "'885 Patent"), and (3) U.S. Patent No. 6,346,876 (the "'876 Patent")As noted ...	Dec. 11, 2017	Motion		—
Cited by	**26. Vehicle tracker including input/output features and related methods** LitAlert P2020-38-05 ... 2:20CV01344 Filing Date: 09/10/2020 Subsequent Action: 09/10/2020 Action Taken: CAUSE - 35 USC 271 - COMPLAINT FOR PATENT INFRINGEMENT Notes: none Other Patents: US 8032278 US RE47225 US RE47354 Other Trademarks: none See LitAlert No: none ...	Sep. 10, 2020	Lit Alert		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Cited by	**27. Vehicle tracking unit for controlling operable vehicle devices using a vehicle data bus and related methods** LitAlert P2020-17-61 ... 6:20CV00693 Filing Date: 04/21/2020 Subsequent Action: 04/21/2020 Action Taken: CAUSE - 35 USC 271 - COMPLAINT FOR PATENT INFRINGEMENT Notes: none Other Patents: US 8032278 US RE47354 US 8362886 US 9981615 US 7305293 US 8410929 US 8258948 Other Trademarks: none See LitAlert No: none ...	Apr. 21, 2020	Lit Alert		—
Cited by	**28. Omega Patents, LLC v. CalAmp Corp.** 2017 WL 4990654, *1+ , M.D.Fla. , (NO. 613CV1950ORL40DCI) This cause is before the Court on Defendant CalAmp's Motion to Vacate the Judgment and Dismiss for Lack of Venue, (Doc. 222), and Plaintiff Omega's Response in Opposition. (Doc.... ... Patent No. 6,346,876 ("the '876 Patent")U.S. Patent No. 6,737,989 U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") (collectively, the "patents-in-suit"). (Doc. 1). Omega attached to its Complaint a Settlement Agreement entered into between Omega ...	Sep. 22, 2017	Case		—
Cited by	**29. Omega Patents, LLC v. Calamp Corp.** 2016 WL 7177550, *1 , M.D.Fla. , (NO. 613CV1950ORL40DAB) This cause comes before the Court on the following: 1. Plaintiff Omega Patents, LLC's Motion In Limine (Doc. 94), filed September 29, 2015; and 2. Defendant CalAmp Corp.'s Response... ... the '876 Patent")U.S. Patent No. 6,737,989 ("the '989 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") (collectively, the "patents-in-suit"). (Doc. 1). The patents-in-suit relate to control systems for vehicles with a ...	Jan. 19, 2016	Case		—
Cited by	**30. Omega Patents, LLC v. Calamp Corp.** 2016 WL 7229888, *1 , M.D.Fla. , (NO. 613CV1950ORL40DAB) This cause comes before the Court on the following: 1. Plaintiff's Motion to Bifurcate Issues of Inequitable Conduct and Prosecution Laches (Doc. 93), filed September 29, 2015; and... ... the '876 Patent")U.S. Patent No. 6,737,989 ("the '989 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No.7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") (collectively, the "patents-in-suit"). (Doc. 1). The patents-in-suit relate to control systems for vehicles with a ...	Jan. 05, 2016	Case		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Cited by	**31. Omega Patents, LLC v. Calamp Corp.** 2015 WL 12830496, *1+ , M.D.Fla. , (NO. 613CV1950ORL40DAB) This cause comes before the Court on the following: 1. Plaintiff's Motion and Memorandum of Law to Exclude the Testimony of Defendant's Expert Eric Andrews (Doc. 55), filed July 1,... ... the '876 Patent")U.S. Patent No. 6,737,989 ("the '989 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") (collectively the "patents-in-suit"). (Doc. 1). The patents-in-suit relate to control systems for vehicles with a ...	Dec. 23, 2015	Case		—
Cited by	**32. Defendant Calamp Corp.'s Answer to Plaintiff's Complaint, Counterclaim, and Jury Demand** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2014 WL 11621847, *1+ , M.D.Fla. (Trial Pleading) , (NO. 6:13-CV-1950-GAP-DAB) ... real, and justiciable controversy exists between Counterclaimant CalAmp and Counterdefendant Omega pertaining to U.S. Patent Nos. 6,346,876 B1 6,737,989 B2 6,756,885 B1 7,671,727 B2; and 8,032,278 B2 ("Patents-in-Suit "), which have been asserted by Omega.Facts 7. On December 20, 2013, Plaintiff/Counter-Defendant Omega filed a Complaint in this ...	Jan. 15, 2014	Petition		—
Cited by	**33. Declaration of Eric Andrews in Support of Defendant Calamp Corp.'s Motion for Summary Judgment of Invalidity** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 12856649, *1+ , M.D.Fla. (Expert Report and Affidavit) , (NO. 613-CV-1950-PGB-DAB) ... asserted patents in this matter, U.S. Patent Nos. 6,346,876 (the '876 patent)6,737,989 (the '989 patent)6,756,885 (the '885 patent)7,671,727 (the '727 patent), and 8,032,278 (the '278 patent) I am informed that copies of the asserted patents were attached as Exhibits B-F to the Complaint (ECF 1) in this ...	July 01, 2015	Expert Materials		—
Cited by	**34. Defendant Calamp Corp.'s Motion for Summary Judgment of Invalidity** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 10478022, *1 , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 6:13-CV-1950-PGB-DAB)	July 01, 2015	Motion		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Cited by	**35. Joint Pretrial Statement** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 10477832, *1+ , M.D.Fla. (Trial Filing) , (NO. 613CV1950ORL40DAB) ... Nos. 6,346,876 B1 ("the '876 Patent"); 6,737,989 B2 ("the '989 Patent); 6,756,885 B1 ("the '885 Patent"); 7,671,727 B2 ("the '727 Patent"); and 8,032,278 B2 ("the ' 278 Patent CalAmp filed counterclaims seeking declaratory judgment of noninfringement, invalidity and unenforceability, as well as asserting a claim for unfair competition.III. BRIEF GENERAL STATEMENT ...	Sep. 22, 2015	Filing		—
Cited by	**36. Verdict Form** OMEGA PATENTS, LLC, Plaintiff, v. CALAMP CORP., Defendant. 2016 WL 1287121, *1+ , M.D.Fla. (Verdict, Agreement and Settlement) , (NO. 613CV1950ORL40DAB) ... Claim 10[] No[] No[] No[] No[] No[X] Yes[X] Yes[X] Yes[X] Yes[X] Yes[X] Yes Claim 11[] No[] No[] No[] No[] No 2.D. U.S. Patent No. 8,032,278 B2 ("the '278 patent "Has Omega proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any ...	Feb. 24, 2016	Jury Verdict		—
Mentioned by	**37. Multi-vehicle compatible control system generating command signals on a data bus and associated methods** LitAlert P2017-30-36 ... Date: 07/21/2017 Subsequent Action: 07/21/2017 Action Taken: CAUSE - 28 USC 1338 - COMPLAINT FOR PATENT INFRINGEMENT Notes: none Other Patents: US 6756885 US 8032278 Other Trademarks: none See LitAlert No: none ...	July 21, 2017	Lit Alert		—
Mentioned by	**38. Multi-vehicle compatible control system generating command signals on a data bus and associated methods** LitAlert P2013-52-29 ... Subsequent Action: 12/20/2013 Action Taken: CAUSE - 35 USC 271 - COMPLAINT FOR PATENT INFRINGEMENT Notes: none Other Patents: US 6737989 US 6756885 US 7671727 US 8032278 Other Trademarks: none See LitAlert No: none ...	Dec. 20, 2013	Lit Alert		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Mentioned by	**39. Omega Patents, Llc's Motion and Memorandum to Dismiss Counterclaims** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2014 WL 11209189, *1 , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL31DAB) ... Court as follows:On December 20, 2013, Omega filed its Complaint, which alleges infringement of five patents (U.S. Patent Nos. 6,346,876 6,737,989 6,756,885 7,671,727 and 8,032,278). (Doc. 1 .) Calamp filed a counterclaim, including claims for patent unenforceability due to alleged inequitable conduct and another for unfair competition derived from the same ...	Feb. 05, 2014	Motion		—
Mentioned by	**40. Omega Patents, LLC's Motion and Memorandum to Dismiss Counterclaims** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2014 WL 11621911, *1 , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL31DAB) ... Court as follows:On December 20, 2013, Omega filed its Complaint, which alleges infringement of five patents (U.S. Patent Nos. 6,346,876 6,737,989 6,756,885 7,671,727 and 8,032,278). (Doc. 1 .) Calamp filed a counterclaim, including claims for patent unenforceability due to alleged inequitable conduct and another for unfair competition derived from the same ...	Feb. 05, 2014	Motion		—
Mentioned by	**41. Plaintiff's Memorandum in Opposition to Enfora, Inc.'s Motion to Stay (Doc. No. 34)** OMEGA PATENTS, LLC, a Georgia Limited Liability Company, Plaintiff, v. ENFORA, INC., a Delaware Corporation, Defendant. 2017 WL 7037864, *1 , N.D.Ga. (Trial Motion, Memorandum and Affidavit) , (NO. 1:17-CV-02769-TWT) ... information gleaned from the first action, Omega filed a second action in Georgia against Enfora, based on the infringement of U.S. Patent Nos. 6,346,876 7,671,727 8,032,278 , and 8,362,886 by the MT-3000 and MT-3050 products. The parties litigated both cases for several more months before Omega dismissed the Florida action ...	Nov. 27, 2017	Motion		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Mentioned by	**42. Plaintiff's Memorandum in Opposition to Enfora, Inc.'s Motion to Dismiss (Doc. No. 28)** OMEGA PATENTS, LLC, a Georgia Limited Liability Company, Plaintiff, v. ENFORA, INC., a Delaware Corporation, Defendant. 2017 WL 7037862, *1 , N.D.Ga. (Trial Motion, Memorandum and Affidavit) , (NO. 1:17-CV-02769-TWT) ... what to do with its accused products. The parties agreed that Omega's infringement claims against Enfora's accused products based on U.S. Patent Nos. 6,346,876 7,671,727 8,032,278 , and 8,362,886 (referred to as the "Georgia Patents-in-Suit") could be restarted and damages that accrued during the period could be claimed by Omega ...	Nov. 13, 2017	Motion		—
—	**43. MULTI VEHICLE COMPATIBLE TRACKING UNIT FOR VEHICLES HAS DOWNLOADING INTERFACE, WHICH ENABLES DOWNLOADING OF ENABLING DATA RELATED TO AT LEAST ONE CORRESPONDING VEHICLE DEVICE CODE TO BE USED BY MULTI-VEHICLE COMPATIBLE CONTROLLER** Out Of Plan DWPI 2008-A15683+ ... to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.First Derwent Appearance:2008.01 Publication No. (Derwent): US 8032278 B2 Original Title (English):VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS Publication Date:2011-10-04 Application No.:US 773272 Application Date ...	May 17, 2000	DWPI	—	—
—	**44. RF 019515/0350** Out Of Plan ... 32801 Number of Pages 3 Last Modified 2011-10-04 PATENTS AFFECTED Title VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS Granted Patent Number US Pat. 8032278 Granted Patent Date 2011-10-04 Published Application Number US Pat. App. 20070279283 Published Application Date 2007-12-06 Application Number 11/773272 ...	July 03, 2007	Assignments	—	—
—	**45. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXA Description: Request for Re-Examination Reissue Number:OG Date: 04/27/2021 ...	Apr. 27, 2021	Patent Status Files	—	—
—	**46. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXA Description: Request for Re-Examination Reissue Number:OG Date: 02/18/2020 ...	Feb. 18, 2020	Patent Status Files	—	—
—	**47. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXC Description: Re-Examination Certificate Reissue Number:OG Date: 01/14/2020 ...	Jan. 14, 2020	Patent Status Files	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**48. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXA Description: Request for Re-Examination Reissue Number:OG Date: 08/13/2019 ...	Aug. 13, 2019	Patent Status Files	—	—
—	**49. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXC Description: Re-Examination Certificate Reissue Number:OG Date: 02/12/2019 ...	Feb. 12, 2019	Patent Status Files	—	—
—	**50. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXA Description: Request for Re-Examination Reissue Number:OG Date: 01/17/2017 ...	Jan. 17, 2017	Patent Status Files	—	—
—	**51. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXC Description: Re-Examination Certificate Reissue Number:OG Date: 01/03/2017 ...	Jan. 03, 2017	Patent Status Files	—	—
—	**52. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXA Description: Request for Re-Examination Reissue Number:OG Date: 11/10/2015 ...	Nov. 10, 2015	Patent Status Files	—	—
—	**53. Omega Patents, LLC v. Firstech, LLC**	Sep. 10, 2020	Docket Summaries	—	—
—	**54. Title Available on Document Page**	—	Docket Summaries	—	—
—	**55. Omega Patents, LLC v. Enfora, Inc.**	July 21, 2017	Docket Summaries	—	—
—	**56. OMEGA PATENTS, LLC v. CALAMP CORP**	Dec. 20, 2013	Docket Summaries	—	—
—	**57. OMEGA PATENTS, LLC v. ENFORA, INC**	Feb. 28, 2013	Docket Summaries	—	—
—	**58. SYSTEMS AND METHODS FOR TRACKING MULTIPLE COLLOCATED ASSETS** Original Pub. US PAT 11022671 , U.S. PTO Utility Systems and methods for locating collocated assets in accordance with embodiments of the invention are disclosed. In one embodiment of the invention, an asset tracking device... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8065342 B1 2011/11 Borg et al.cited by applicant US United States ...	June 01, 2021	Patents	—	—

Treatment	Title	Date	Type	Depth	Headnote(s)
—	**59. REMOTE VEHICLE SYSTEM CONFIGURATION, CONTROL, AND TELEMATICS** Out Of Plan US PAT 10720045 , U.S. PTO Utility A vehicle control system (VCS) includes external communication interfaces, such as a Bluetooth interface, for communicating with a user communication and control device, such as a... ... States US 7898404 B2 2011/03 Flick cited by applicant US United States US 7899592 B2 2011/03 Yaqub cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8061626 B2 2011/11 Flick cited by applicant US United States US 8090499 ...	July 21, 2020	Patents	—	—
—	**60. SYSTEMS AND METHODS FOR RADIO ACCESS INTERFACES** Out Of Plan US PAT 10645551 , U.S. PTO Utility Systems and methods for radio access interfaces in accordance with embodiments of the invention are disclosed. In one embodiments, a vehicle telematics device includes a processor,... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8065342 B1 2011/11 Borg et al.cited by applicant US United States ...	May 05, 2020	Patents	—	—
—	**61. SYSTEMS AND METHODS FOR FAILSAFE FIRMWARE UPGRADES** Out Of Plan US PAT 10599421 , U.S. PTO Utility Systems and methods for failsafe firmware upgrades in accordance with embodiments of the invention are disclosed. One embodiment includes a vehicle telematics device, including: a... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8155841 B2 2012/04 Erb cited by applicant US United States US 8330626 ...	Mar. 24, 2020	Patents	—	—
—	**62. SYSTEMS AND METHODS FOR TRACKING MULTIPLE COLLOCATED ASSETS** Out Of Plan US PAT 10473750 , U.S. PTO Utility Systems and methods for locating collocated assets in accordance with embodiments of the invention are disclosed. In one embodiment of the invention, an asset tracking device... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8065342 B1 2011/11 Borg et al.cited by applicant US United States ...	Nov. 12, 2019	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**63. SYSTEMS AND METHODS FOR LOW LATENCY 3-AXIS ACCELEROMETER CALIBRATION** Out Of Plan US PAT 10466269 , U.S. PTO Utility Systems and methods for low-latency calibration of the alignment of 3-axis accelerometers in accordance embodiments of the invention are disclosed. In one embodiment of the... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8155841 B2 2012/04 Erb cited by applicant US United States US 8489271 ...	Nov. 05, 2019	Patents	—	—
—	**64. SYSTEMS AND METHODS FOR CRASH DETERMINATION WITH NOISE FILTERING** Out Of Plan US PAT 10395438 , U.S. PTO Utility Embodiments of the invention include a vehicle telematics system including a telematics device and a remote server system, wherein the telematics device obtains sensor data from at... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8155841 B2 2012/04 Erb cited by applicant US United States US 8489271 ...	Aug. 27, 2019	Patents	—	—
—	**65. TELEMATICS ROAD READY SYSTEM WITH USER INTERFACE** Out Of Plan US PAT 10388161 , U.S. PTO Utility A system for monitoring a trailer includes a plurality of wireless sensors mounted to a trailer for monitoring conditions of the trailer; a master control unit attached to an... ... 8000843 B2 2011/08 Kim cited by applicant US United States US 8010127 B2 2011/08 Burtner et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8223009 B2 2012/07 Anderson et al.cited by applicant US United States ...	Aug. 20, 2019	Patents	—	—
—	**66. SYSTEMS AND METHODS FOR DETERMINING VEHICLE OPERATIONAL STATUS** Out Of Plan US PAT 10304264 , U.S. PTO Utility Systems and methods for determining vehicle operational status in accordance with embodiments of the invention are disclosed. In one embodiment, a vehicle status determination... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8489271 B2 2013/07 Hergesheimer et al.cited by applicant US United States ...	May 28, 2019	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**67. SYSTEMS AND METHODS FOR IMPACT DETECTION WITH NOISE ATTENUATION OF A SENSOR SIGNAL** Ont Of Pten US PAT 10214166 , U.S. PTO Utility Systems and methods for impact detection in accordance with embodiments of the invention are disclosed. In one embodiment, a vehicle impact detection system includes an... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8155841 B2 2012/04 Erb cited by applicant US United States US 8489271 ...	Feb. 26, 2019	Patents	—	—
—	**68. SYSTEMS AND METHODS FOR RADIO ACCESS INTERFACES** Ont Of Pten US PAT 10219117 , U.S. PTO Utility Systems and methods for radio access interfaces in accordance with embodiments of the invention are disclosed. In one embodiments, a vehicle telematics device includes a processor,... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8330626 B1 2012/12 Adelson cited by applicant US United States US 8489271 ...	Feb. 26, 2019	Patents	—	—
—	**69. VEHICLE SYSTEM INCLUDING SECURITY UNIT PROVIDING DEGRADATION COMMANDS VIA A VEHICLE DATA BUS AND RELATED METHODS** Ont Of Pten US PAT 10180689+ , U.S. PTO Utility A vehicle security unit is for a vehicle including at least one data communications bus, an On-Board Diagnostic (OBD) port coupled to the at least one data communications bus, and... ... 5252966 A 1993/10 Lambropoulos et al.cited by applicant US United States US 6011460 A 2000/01 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 9656631 B1 2017/05 Flick cited by applicant US United States US 2009 ...	Jan. 15, 2019	Patents	—	—
—	**70. MOBILE HYBRID TRANSMIT/RECEIVE NODE FOR NEAR-FIELD WIRELESS POWER DELIVERY** Ont Of Pten US PAT 10181729 , U.S. PTO Utility A system and method for a mobile hybrid transmitter/receiver (TX/RX) node for wireless resonant power delivery is disclosed. A hybrid TX/RX can be configured to travel to remote,... ... 6087806 A 2000/07 Fujioka cited by applicant US United States US 6980000 B2 2005/12 Wong et al.cited by applicant US United States US 8032278 B2 2011/10 Flick 362/104 B60R 25/04 cited by examiner US United States US 8143746 B2 2012/03 Marzetta et al.cited ...	Jan. 15, 2019	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**71. SYSTEMS AND METHODS FOR EFFICIENT CHARACTERIZATION OF ACCELERATION EVENTS** Out Of Plan US PAT 10107831 , U.S. PTO Utility Systems and methods for the efficient characterization of acceleration events in accordance embodiments of the invention are disclosed. In one embodiment of the invention, an... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8489271 B2 2013/07 Hergesheimer et al.cited by applicant US United States ...	Oct. 23, 2018	Patents	—	—
—	**72. SYSTEMS AND METHODS FOR LOCATION REPORTING OF DETECTED EVENTS IN VEHICLE OPERATION** Out Of Plan US PAT 10102689 , U.S. PTO Utility Systems and methods for location reporting of detected events during vehicle operation in accordance embodiments of the invention are disclosed. In one embodiment of the invention,... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8489271 B2 2013/07 Hergesheimer et al.cited by applicant US United States ...	Oct. 16, 2018	Patents	—	—
—	**73. TELEMATICS ROAD READY SYSTEM** Out Of Plan US PAT 10093232 , U.S. PTO Utility A system for monitoring a trailer having a plurality of light emitting diode devices includes a master control unit attached to an outside surface of the trailer. The master... ... 8000843 B2 2011/08 Kim cited by applicant US United States US 8010127 B2 2011/08 Burtner et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8223009 B2 2012/07 Anderson et al.cited by applicant US United States ...	Oct. 09, 2018	Patents	—	—
—	**74. SYSTEMS AND METHODS FOR CRASH DETERMINATION** Out Of Plan US PAT 10055909 , U.S. PTO Utility Systems and methods for crash determination in accordance with embodiments of the invention are disclosed. In one embodiment, a vehicle telematics device includes a processor and a... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8155841 B2 2012/04 Erb cited by applicant US United States US 8489271 ...	Aug. 21, 2018	Patents	—	—

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—	**75. REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Ont Of Plan US PAT 9981615+ , U.S. PTO Utility A remote function control system for a vehicle including a data communications bus extending throughout the vehicle and coupled to vehicle devices may include a wireless data bus... ... Flick 701/002 cited by examiner US United States US 7818097 B2 2010/10 Fein et al.701/001 cited by examiner US United States US 8032278 B2 2011/10 Flick 701/036 cited by examiner US United States US 8269601 B2 2012/09 Burzio 340/005.6 cited by examiner ...	May 29, 2018	Patents	—	—
—	**76. REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Ont Of Plan US PAT 9981616+ , U.S. PTO Utility A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... States US 7818097 B2 2010/10 Fein cited by applicant US United States US 7734382 B2 2010/11 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick 382/104 B60R 25/04 cited by examiner US United States US 8269601 B2 2012/09 Burzio cited by applicant ...	May 29, 2018	Patents	—	—
—	**77. REMOTE FUNCTION CONTROL SYSTEM WITH REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Ont Of Plan US PAT 9925956+ , U.S. PTO Utility A remote function control system is for a vehicle including a data bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired vehicle... ... Flick 340/426.1 B60R 25/1004 cited by examiner US United States US 7010402 B2 2006/03 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8362886 B2 2013/01 Flick cited by applicant US United States US 9656631 ...	Mar. 27, 2018	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**78. REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Ord Of Pen US PAT 9919682+ , U.S. PTO Utility A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... Flick 340/426.1 B60R 25/1004 cited by examiner US United States US 7010402 B2 2006/03 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8362886 B2 2013/01 Flick cited by applicant US United States US 9656631 ...	Mar. 20, 2018	Patents	—	—
—	**79. MULTI-CONTROLLER DATA BUS ADAPTOR OPERABLE BASED UPON DATA BUS ADAPTOR COMMUNICATION DETERMINED ADAPTOR CODES AND RELATED METHODS** Ord Of Pen US PAT 9797183 , U.S. PTO Utility A remote control system may be for a vehicle including a data communications bus and connecting vehicle devices. The vehicle devices may be operable with a set of vehicle device... ... 16/03 cited by examiner US United States US 6756885 B1 2004/06 Flick 180/287 B60R 25/04 cited by examiner US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8362886 B2 2013/01 Flick cited by applicant US United States US 2001 ...	Oct. 24, 2017	Patents	—	—
—	**80. REMOTE FUNCTION CONTROL SYSTEM WITH WIRELESS DATABUS DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Ord Of Pen US PAT 9656631+ , U.S. PTO Utility A remote function control system is for a vehicle including a data communications bus and coupled to a plurality of vehicle devices, and a wired electrical power system. A wireless... ... Flick cited by applicant US United States US 7463132 B2 2008/12 Deng 340/005.2 G07C 9/00563 cited by examiner US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8362886 B2 2013/01 Flick cited by applicant US United States US 2005 ...	May 23, 2017	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**81. SYSTEMS AND METHODS FOR DETERMINING VEHICLE OPERATIONAL STATUS** Out Of Plan US PAT 9644977 , U.S. PTO Utility Systems and methods for determining vehicle operational status in accordance with embodiments of the invention are disclosed. In one embodiment, a vehicle status determination... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8489271 B2 2013/07 Hergesheimer et al.cited by applicant US United States ...	May 09, 2017	Patents	—	—
—	**82. MULTI-CONTROLLER DATA BUS ADAPTOR OPERABLE BASED UPON CONTROLLER DOWNLOADED ADAPTOR CODES AND RELATED METHODS** Out Of Plan US PAT 9582991 , U.S. PTO Utility A remote control system may be for a vehicle including a data communications bus extending throughout the vehicle and connecting vehicle devices. The vehicle devices may be... ... States US 6346876 B1 2002/02 Flick cited by applicant US United States US 6756885 B1 2004/06 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8362886 B2 2013/01 Flick cited by applicant US United States US 2007 ...	Feb. 28, 2017	Patents	—	—
—	**83. REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Out Of Plan US PAT 9527478+ , U.S. PTO Utility A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... States US 7734382 B2 2010/06 Flick cited by applicant US United States US 7818097 B2 2010/10 Fein cited by applicant US United States US 8032278 B2 2011/10 Flick 382/104 B60R 25/04 cited by examiner US United States US 8269601 B2 2012/09 Burzio cited by applicant ...	Dec. 27, 2016	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**84. SYSTEMS AND METHODS FOR COLLECTING INFORMATION FROM VEHICLE DEVICES VIA A VEHICLE DATA BUS** Out Of Plan US PAT 9171460 , U.S. PTO Utility Systems and methods in accordance with embodiments of the invention continuously collecting information via a vehicle data bus, store the information in a database, and retrieve... ... 7250850 B2 2007/07 Mizutani 340/435 cited by examiner US United States US 7671727 B2 2010/03 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 2012/0158211 A1 2012/06 Chen et al.cited by applicant Other Publications ...	Oct. 27, 2015	Patents	—	—
—	**85. SYSTEM INCLUDING VEHICLE LOCATION ALERT BASED COMMUNICATION WITH A VEHICLE AUDIO ENTERTAINMENT SYSTEM AND RELATED METHODS** Out Of Plan US PAT 9159233+ , U.S. PTO Utility A system for a vehicle having a data communications bus extending throughout the vehicle, and an audio entertainment system coupled to the data communications bus may include a... ... 2007/12 Schofield et al.701/001 cited by examiner US United States US 7898404 B2 2011/03 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 2002/0130769 A1 2002/09 Yamagishi 340/426 cited by examiner US United ...	Oct. 13, 2015	Patents	—	—
—	**86. VEHICLE WITH AT LEAST ONE ENVIRONMENT DETECTION SYSTEM** Out Of Plan US PAT 9111452 , U.S. PTO Utility A vehicle is equipped with at least one environment detection system, a communication system which transmits information by remote transmission to receivers external to the... ... Sakata et al.382/159 cited by examiner US United States US 7983802 B2 2011/07 Breed 701/001 cited by examiner US United States US 8032278 B2 2011/10 Flick 701/036 cited by examiner US United States US 8229663 B2 2012/07 Zeng et al.701/301 cited by ...	Aug. 18, 2015	Patents	—	—
—	**87. COMMUNICATION DEVICE AND CAR FINDER SYSTEM** Out Of Plan US PAT 9037081 , U.S. PTO Utility A car finder system has a portable terminal that receives a preset operation performed thereon for wirelessly transmitting a preset car finder instruction. A communication device... ... et al.340/988 cited by examiner US United States US 7885603 B2 2011/02 Santavicca 455/041.2 cited by examiner US United States US 8032278 B2 2011/10 Flick 701/036 cited by examiner US United States US 8232897 B2 2012/07 Tieman et al.340/990 cited by ...	May 19, 2015	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**88. SYSTEM INCLUDING VEHICLE SPEED ALERT BASED COMMUNICATION WITH A VEHICLE AUDIO ENTERTAINMENT SYSTEM AND RELATED METHODS** Out Of Pat. US PAT 9031546+ , U.S. PTO Utility A system for a vehicle having a data communications bus extending throughout the vehicle, and an audio entertainment system coupled to the data communications bus may include a... ... 2011/03 Flick cited by applicant US United States US 7952512 B1 2011/05 Delker et al.342/042 cited by examiner US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8212691 B2 2012/07 Pudar 340/988 cited by examiner US United States ...	May 12, 2015	Patents	—	—
—	**89. SYSTEMS AND METHODS FOR COLLECTING INFORMATION FROM VEHICLE DEVICES VIA A VEHICLE DATA BUS** Out Of Pat. US PAT 8812173 , U.S. PTO Utility Systems and methods in accordance with embodiments of the invention continuously collect information from vehicle devices via a vehicle data bus, store information in a database,... ... 7250850 B2 2007/07 Mizutani 340/435 cited by examiner US United States US 7671727 B2 2010/03 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant Other Publications:Road vehicles---Diagnostic System---Part 2: Carb requirements for interchange of digital information, ISO 9141 ...	Aug. 19, 2014	Patents	—	—
—	**90. VEHICLE SYSTEM INCLUDING REMOTE START DATA BUS COMMAND SENDING BASED UPON A SHORT-RANGE LINK AND RELATED METHODS** Out Of Pat. US PAT APP 20190143935 , U.S. PTO Application A vehicle system for a vehicle may include a vehicle tracking unit that includes a first bus interface to be coupled to a first data communications bus of the vehicle, a vehicle... ... 59#, and have multi-vehicle capability so that the remote start unit can interface with different vehicles, as disclosed in U.S. Patent Nos. 6,011,460 and 8,032,278 , for example, the entire contents of which are hereby incorporated herein by reference. Of course, remote start capability could also be included within the vehicle ...	May 16, 2019	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**91. VEHICLE SYSTEM INCLUDING SECURITY UNIT PROVIDING DEGRADATION COMMANDS VIA A VEHICLE DATA BUS AND RELATED METHODS** Out Of Plan US PAT APP 20180050660 , U.S. PTO Application A vehicle security unit is for a vehicle including at least one data communications bus, an On-Board Diagnostic (OBD) port coupled to the at least one data communications bus, and... ... 59#, and have multi-vehicle capability so that the remote start unit can interface with different vehicles, as disclosed in U.S. Pat. Nos. 6,011,460 and 8,032,278 , for example, the entire contents of which are hereby incorporated herein by reference. Of course, remote start capability could also be included within the vehicle ...	Feb. 22, 2018	Patents	—	—
—	**92. REMOTE FUNCTION CONTROL SYSTEM WITH REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Out Of Plan US PAT APP 20170197587 , U.S. PTO Application A remote function control system is for a vehicle including a data bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired vehicle... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 23 may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	July 13, 2017	Patents	—	—
—	**93. REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Out Of Plan US PAT APP 20170197588 , U.S. PTO Application A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 23 may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	July 13, 2017	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**94. REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Ont Of Plan US PAT APP 20150291109 , U.S. PTO Application A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 23# may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	Oct. 15, 2015	Patents	—	—
—	**95. REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Ont Of Plan US PAT APP 20150246658 , U.S. PTO Application A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 23# may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	Sep. 03, 2015	Patents	—	—
—	**96. SYSTEM INCLUDING VEHICLE LOCATION ALERT BASED COMMUNICATION WITH A VEHICLE AUDIO ENTERTAINMENT SYSTEM AND RELATED METHODS** Ont Of Plan US PAT APP 20140266811 , U.S. PTO Application A system for a vehicle having a data communications bus extending throughout the vehicle, and an audio entertainment system coupled to the data communications bus may include a... ... vehicle 211 or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 217 may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	Sep. 18, 2014	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**97. SYSTEM INCLUDING VEHICLE SPEED ALERT BASED COMMUNICATION WITH A VEHICLE AUDIO ENTERTAINMENT SYSTEM AND RELATED METHODS** Ovl Of Pats US PAT APP 20140274012 , U.S. PTO Application A system for a vehicle having a data communications bus extending throughout the vehicle, and an audio entertainment system coupled to the data communications bus may include a... ... vehicle 211 or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 217 may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	Sep. 18, 2014	Patents	—	—
—	**98. REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Ovl Of Pats US PAT APP 20140277838 , U.S. PTO Application A remote function control system for a vehicle including a data communications bus extending throughout the vehicle and coupled to vehicle devices may include a wireless data bus... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 23# may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	Sep. 18, 2014	Patents	—	—
—	**99. REMOTE FUNCTION CONTROL SYSTEM WITH REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Ovl Of Pats CA PAT 2951679 C A remote function control system is for a vehicle including a data bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired vehicle... ... vehicle or may be removed from the vehicle for 9 programming. Further details of programming a multi-vehicle compatible controller 23 may be found in U.S. Patent No. 8,032,278 to Flick, assigned to the present assignee, 11 and the entire contents of which are herein incorporated by reference. Other or 12 ...	Feb. 09, 2021	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**100. VEHICLE SYSTEM INCLUDING SECURITY UNIT PROVIDING DEGRADATION COMMANDS VIA A VEHICLE DATA BUS AND RELATED METHODS** Ont Of Plan CA PAT 2974521 C A vehicle security unit is for a vehicle including at least one data communications bus, an On-Board Diagnostic (OBD) port coupled to the at least one data communications bus, and... ... and have multi-vehicle capability so that the remote start unit can interface with different 3 vehicles, as disclosed in U.S. Patent Nos. 6,011,460 and 8,032,278 , for example. Of course, 4 remote start capability could also be included within the vehicle security unit 45' as well. [0034] In accordance with another ...	June 04, 2019	Patents	—	—
—	**101. REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Ont Of Plan CA PAT 2925135 C A remote function control system is provided for a vehicle including a data communications bus and coupled to a plurality of vehicle devices, and a wired vehicle electrical ... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi- vehicle compatible controller 23' may be found in U.S. Patent No. 8,032,278 to Flick, assigned to the present assignee. Other or additional programming or configuration techniques may be used, as will be appreciated by ...	Jan. 15, 2019	Patents	—	—
—	**102. VEHICLE SYSTEM INCLUDING REMOTE START DATA BUS COMMAND SENDING BASED UPON A SHORT-RANGE LINK AND RELATED METHODS** Ont Of Plan CA PAT APP 3062636 A1 A vehicle system for a vehicle may include a vehicle tracking unit that includes a first bus interface to be coupled to a first data communications bus of the vehicle, a vehicle... ... and have multi-vehicle capability so that the remote start unit can interface with different 13 vehicles, as disclosed in U.S. Patent Nos. 6,011,460 and 8,032,278 , for example. Of course, 14 remote start capability could also be included within the vehicle security unit 45' as well. [0039] In accordance with another ...	July 08, 2020	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**103.** VEHICLE SYSTEM INCLUDING SECURITY UNIT PROVIDING DEGRADATION COMMANDS VIA A VEHICLE DATA BUS AND RELATED METHODS Out Of Plan CA PAT APP 2974521 A1 A vehicle security unit is for a vehicle including at least one data communications bus, an On-Board Diagnostic (OBD) port coupled to the at least one data communications bus,... ... and have multi-vehicle capability so that the remote start unit can interface with different 3 vehicles, as disclosed in U.S. Patent Nos. 6,011,460 and 8,032,278 , for example. Of course, 4 remote start capability could also be included within the vehicle security unit 45' as well. [0034] In accordance with another ...	Feb. 19, 2018	Patents	—	—
—	**104.** REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan CA PAT APP 2951747 A1 A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... or may be removed from the vehicle for 28 programming. Further details of programming a multi-vehicle compatible controller 23 29 may be found in U.S. Patent No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or 11 23040620 ...	July 12, 2017	Patents	—	—
—	**105.** REMOTE FUNCTION CONTROL SYSTEM WITH WIRELESS DATABUS DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan CA PAT APP 2951778 A1 A remote function control system is for a vehicle including a data communications bus and coupled to a plurality of vehicle devices, and a wired electrical power system. A... ... or may be removed from the vehicle for 28 programming. Further details of programming a multi-vehicle compatible controller 23 29 may be found in U.S. Patent No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or 11 23040561 ...	July 12, 2017	Patents	—	—

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—	**106.** REMOTE FUNCTION CONTROL SYSTEM WITH REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan CA PAT APP 2951679 A1 A remote function control system is for a vehicle including a data bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired vehicle... ... vehicle or may be removed from the vehicle for 9 programming. Further details of programming a multi-vehicle compatible controller 23 may be found in U.S. Patent No. 8,032,278 to Flick, assigned to the present assignee, 11 and the entire contents of which are herein incorporated by reference. Other or 12 ...	July 12, 2017	Patents	—	—
—	**107.** REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan CA PAT APP 2925135 A1 A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... or 22 may be removed from the vehicle for programming. Further details of programming a multi- 23 vehicle compatible controller 23' may be found in U.S. Patent No. 8,032,278 to Flick, assigned 24 to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional ...	Oct. 28, 2016	Patents	—	—
—	**108.** TOP STORY-FED. CIR.: OWNER OF "LOJACK' TECHNOLOGY TOLD TO HIT THE ROAD IN APPEAL OF INFRINGEMENT CLAIM	2021	Other Secondary Source	—	—
—	**109.** TOP STORY-FED. CIR.: NEW TRIAL REQUIRED AND DAMAGES VACATED IN REMOTE VEHICLE CONTROL PATENT DISPUTE Although a federal district court's no-invalidity findings were affirmed, reversal of several findings of infringement required vacatur of the over-$15 million damages award and a... ... suit brought by Omega Patents against CalAmp Corp. alleging infringement of Omega's U.S. Patent Nos. 6,346,876 ('876 patent)6,756,885 ('885 patent)7,671,727 ('727 patent), and 8,032,278 ('278 patent) , the...Although a federal district court's no-invalidity findings were affirmed, reversal of several findings of infringement required vacatur of the over-$15 ...	2019	Other Secondary Source	—	—

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Results for: US PAT 8032278

Cases (5) Sort by: Relevance

1.

Omega Patents, LLC v. CalAmp Corp.

11th Circuit - US District Court Cases | United States District Court for the Middle District of Florida, Orlando Division | Jan 05, 2016 | 2016 U.S. Dist. LEXIS 174577

... U.S. Patent No. 7,671,727 ("the '727 Patent") , and **U.S. Patent No. 8,032,278** ("the '278 Patent") (collectively, the "patents-in-suit"). (Doc. 1). The patents-in-suit relate ...

2.

Omega Patents, LLC v. CalAmp Corp.

Federal Circuit - US Court of Appeals Cases | United States Court of Appeals for the Federal Circuit | Sep 14, 2021 | 13 F.4th 1361

Overview: In a patent infringement action, a new trial on damages for infringement of the '278 patent was warranted because the district court abused its discretion in precluding appellant's damages expert from offering his fully disclosed rebuttal testimony in the retrial, and in denying appellant's motion for a new trial on that basis.

... from a judgment of infringement and award of damages as to **U.S. Patent No. 8,032,278** ("the '278 patent") . Omega Patents, LLC (" Omega ") cross-appeals ...

3.

Omega Patents, LLC v. Calamp Corp.

11th Circuit - US District Court Cases | United States District Court for the Middle District of Florida, Orlando Division | Sep 22, 2017 | 2017 U.S. Dist. LEXIS 186645

... U.S. Patent No. 7,671,727 ("the '727 Patent") , and **U.S. Patent No. 8,032,278** ("the '278 Patent") (collectively, the "patents-in-suit"). (Doc. 1). Omega attached to ...

4.

Omega Patents, LLC v. CalAmp Corp.

11th Circuit - US District Court Cases | United States District Court for the Middle District of Florida, Orlando Division | Apr 06, 2017 | 2017 U.S. Dist. LEXIS 55846

... 1, 10, and 11. (Id. at p. 4). , and **U.S. Patent No. 8,032,278** ("the '278 Patent") 4 The jury found infringement of claims 1-6, ...

5.

Omega Patents, LLC v. CalAmp Corp.

11th Circuit - US District Court Cases | United States District Court for the Middle District of Florida, Orlando Division | Jan

... U.S. Patent No. 7,671,727 ("the '727 Patent") , and **U.S. Patent No. 8,032,278** ("the '278 Patent") (collectively, the "patents-in-suit"). (Doc. 1). The patents-in-suit relate ...

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1.

5100 Exclusive Rights

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PART 1 TOPICAL OUTLINE WITH ABSTRACTS—2022 EDITION > SECTION 5000 PART 1 INFRINGEMENT

5100 Exclusive Rights

... U.S. Pat. No. 6,756,885 ; U.S. Pat. No. 7,671,727 ; **U.S. Pat. No. 8,032,278** . A jury found all the asserted claims infringed by an ...

... U.S. Pat. No. 6,756,885 ; U.S. Pat. No. 7,671,727 ; **U.S. Pat. No. 8,032,278** . A jury found all the asserted claims infringed by an ...

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3400 Reexamination; 35 U.S.C. Sections 301–307

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PART 1 TOPICAL OUTLINE WITH ABSTRACTS—2022 EDITION > SECTION 5000 PART 2 INFRINGEMENT

5200 Claim Interpretation

... U.S. Pat. No. 6,756,885 ; U.S. Pat. No. 7,671,727 ; **U.S. Pat. No. 8,032,278** . In an infringement suit, after construing the claims in a ...

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5600 Defenses

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6200 Damages; 35 U.S.C. Section 284

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6300 Collateral Assessments; 35 U.S.C. Sections 284 and 285

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... U.S. Pat. No. 6,756,885 ; U.S. Pat. No. 7,671,727 ; **U.S. Pat. No. 8,032,278** . In an infringement suit, after construing the claims in a ...

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... U.S. Pat. No. 6,756,885 ; U.S. Pat. No. 7,671,727 ; **U.S. Pat. No. 8,032,278** . In an infringement suit in a district court, the patent ...

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1.
Omega Patents, Llc V. Calamp Corp.

United States District Court, Florida Middle | Dec 20, 2013 | 6:13cv1950 | Closed
... vehicle having a data bus and associated methods 2010-03-02 340 466 **8,032,278** Vehicle tracking unit with downloadable codes and associated methods 2011-10-04 701 ...

2.
Omega Patents, Llc V. Dei Holdings, Inc.

United States District Court, Florida Middle | Apr 21, 2020 | 6:20cv693 | Closed
... US District Court for the Middle District of Florida 2020-04-21 5YK5-H0V1-J9YR-543C-00000-00 **8,032,278** Vehicle tracking unit with downloadable codes and associated methods 2011-10-04 701 ...

3.
Omega Patents, Llc V. Enfora, Inc.

United States District Court, Georgia Northern | Jul 21, 2017 | 1:17cv2769 | Closed
... reading from a data bus and associated methods 2004-06-29 340 426.1 **8,032,278** Vehicle tracking unit with downloadable codes and associated methods 2011-10-04 701 ...

4.
Omega Patents, Llc V. Enfora, Inc.

US District Court for the Northern District of Georgia | Feb 28, 2013 | 1:13cv646 | Closed
... vehicle having a data bus and associated methods 2010-03-02 340 466 **8,032,278** Vehicle tracking unit with downloadable codes and associated methods 2011-10-04 701 ...

5.
Omega Patents Llc V. Firstech Llc

United States District Court, Washington Western | Sep 10, 2020 | 2:20cv1344 | Open
... Vehicle tracker including input/output features and related methods 2007-12-04 701 45 **8,032,278** Vehicle tracking unit with downloadable codes and associated methods 2011-10-04 701 ...

Content type: Dockets

Terms: patent-number(8032278)

Search Type: Boolean - Fewer Results

Narrow By: Case Status: Open or Unknown or Closed, Case Type: Circuit Civil or Civil or District Civil or Petition for Review or Writ Appeals, Intellectual Property or Judicial Review or Other Civil

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 90/014,675	Filing Date 02/16/2021	☐ To be Mailed

ENTITY: ☐ LARGE ☑ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $240 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	12/06/2021	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 22	Minus	** 22	= 0		x $50 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0		x $240 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/TYWANA P LOVELACE/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: **KENNETH E. FLICK** Request for Reexamination of **8,032,278** Control No. **90/014,675** Confirmation No. **7247** Filing Date: **2/16/2021** For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	Attorney Docket No.: **(58106CIP1_REX5)** Examiner: **L. WASSUM** Art Unit: **3992**

RESPONSE TO THE FINAL
OFFICIAL ACTION MAILED OCTOBER 5, 2021
IN EX PARTE REEXAMINATION

EFILE
Commissioner for Patents

Dear Commissioner:

Responsive to the Final Official Action of October 5, 2021, please enter the amendments and remarks set out below.

If any fee is required, authorization is given to charge Deposit Account No. 01-0484.

In the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

1. (Pending) A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

2. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface comprises a wired signal downloading interface.

3. (Pending) The multi-vehicle compatible tracking unit according to claim 2 wherein said wired signal downloading

interface comprises a connector for temporary connection to a downloading device.

4. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface comprises a wireless signal downloading interface.

5. (Pending) The multi-vehicle compatible tracking unit according to claim 4 wherein said wireless signal downloading interface comprises a wireless receiver for temporary connection to a downloading device.

6. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

7. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

8. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

9. (Pending) The multi-vehicle compatible tracking unit according to claim 1 further comprising a remote transmitter; and wherein said multi-vehicle compatible

controller also performs at least one vehicle remote control function responsive to said remote transmitter.

10. (Pending) The multi-vehicle compatible tracking unit according to claim 9 wherein the at least one vehicle remote control function comprises at least one of a vehicle security function, a remote keyless entry function, and a remote engine starting function.

11. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein said wireless position determining device comprises a Global Positioning System (GPS) receiver.

12. (Pending) The multi-vehicle compatible tracking unit according to claim 1 further comprising a housing containing said vehicle position determining device, said wireless communications device, said multi-vehicle compatible controller, and said downloading interface.

13. (Pending) A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller;

said downloading interface comprising a connector for temporary connection to a downloading device.

14. (Pending) The multi-vehicle compatible tracking unit according to claim 13 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

15. (Pending) The multi-vehicle compatible tracking unit according to claim 13 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

16. (Pending) The multi-vehicle compatible tracking unit according to claim 13 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

17. (Pending) The multi-vehicle compatible tracking unit according to claim 13 further comprising a remote transmitter; and wherein said multi-vehicle compatible

controller also performs at least one vehicle remote control function responsive to said remote transmitter.

18. (Pending) A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller;

said downloading interface comprising a wireless receiver for temporary connection to a downloading device.

19. (Pending) The multi-vehicle compatible tracking unit according to claim 18 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

20. (Pending) The multi-vehicle compatible tracking unit according to claim 18 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

21. (Pending) The multi-vehicle compatible tracking unit according to claim 18 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

22. (Pending) The multi-vehicle compatible tracking unit according to claim 18 further comprising a remote transmitter; and wherein said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter.

REMARKS

The Patent Owner thanks the Examiner for the careful and thorough examination of the issued claims of the '278 patent, now on their fifth reexamination. The patentability of the issued claims has been confirmed repeatedly by the U.S. Patent and Trademark Office. The Patent Owner also thanks the Examiner for confirming the patentability of Claims 2-3 and 12-17. The Patent Owner also thanks the Examiner for the helpful comments provided within the Final Official Action.

Additionally, the Patent Owner submits herewith a Second Rule 132 Declaration from Joseph C. McAlexander, III (Exhibit 7, hereinafter "Second McAlexander Declaration")) (the technical consultant for the related litigation with the Requester's customer, and the technical consultant for the prior reexaminations of the '278 patent) in support of arguments for patentability.

As detailed herein, the Patent Owner submits that the teachings of Lowrey et al. and its schema are quite limited. The schema is not multi-vehicle compatible as defined by the claimed invention. Moreover, similar to the deficiencies of the prior art applied in prior reexaminations, for example, Chou et al., the wireless appliance of Lowrey et al. is not a multi-vehicle compatible controller. Rather, the wireless appliance of Lowrey et al. is operationally compatible with the given vehicle, in which it is installed.

The Patent Owner submits that all of the claims are patentable, presents arguments herein supporting such patentability, and respectfully requests that the Examiner

withdraw all pending rejections and issue a Reexamination Certificate confirming all claims as patentable.

I. Background

A. The Related Litigation

The Requester, i.e. the Innova Electronic Corporation (hereinafter "Innova"), is a supplier of an infringing product to the CalAmp Corporation (hereinafter "CalAmp"). The past four *ex parte* reexaminations of the '278 patent have been filed by the Requester and CalAmp.

Personnel of CalAmp began patent licensing discussions with Mr. Flick, President of the Patent Owner, in approximately 2005. Meetings were held in 2009 and a patent license was offered, and rejected, resulting in a lawsuit filed December 14, 2009. This suit did not involve the '278 patent under reexamination, and was resolved on June 9, 2010.

Further licensing discussions with CalAmp failed and another lawsuit was filed against CalAmp on December 20, 2013. (6:13-cv-01950-PGB-DCI, in the Middle District of Florida (Orlando)). This case involved the present '278 patent.

On February 24, 2016, the related seven-day jury trial involving the '278 patent was concluded with a First Jury Verdict (Exhibit 2), where CalAmp was found to infringe all of the asserted claims in all of asserted patents, and, in particular, the asserted Claims 1, 3-5, 12, 14 and 16 of the '278 patent. In the finding that the '278 patent was not invalid, the Jury found secondary factors indicating non-obviousness of the '278 patent.

In the related litigation between the Patent Owner and

CalAmp, which ultimately resulted in a rejection of CalAmp's invalidity arguments, CalAmp on April 20, 2018 filed its first appeal brief with the Court of Appeals for the Federal Circuit. The Patent Owner filed its responsive brief on May 30, 2018, and CalAmp filed a reply brief on July 2, 2018. Of particular relevance, CalAmp's briefs in the litigation raised no issues with respect to validity of any of the asserted patents (including the '278 patent) in view of the prior art carefully selected and presented at trial.

On April 8, 2019, the Appeal was affirmed-in-part, reversed-in-part, and vacated-in-part. The decision remanded the case back to the District Court for a retrial. During the retrial, CalAmp did not challenge the validity of the infringed claims. The second trial concluded on September 30, 2019, and the Jury found CalAmp infringed the '278 patent and awarded $4,586,111 in damages. (*See* Second Jury Verdict, Exhibit 3). The court jury also awarded an ongoing royalty of $5 a unit for the '278 patent.

CalAmp on May 14, 2020 filed a second appeal brief with the Court of Appeals for the Federal Circuit. On September 14, 2021, the Federal Circuit confirmed infringement of the '278 patent and remanded for a further trial on damages.

A litigation against Enfora, Inc. (1:17-cv-02769-TWT, in the Northern District of Georgia (Atlanta)) was concluded September 3, 2019, which included the '278 patent.

The Patent Owner is also asserting the '278 patent in a pending litigation against Firstech, LLC in the Western District of Washington (2:20-cv-01344).

B. Related Reexaminations

As in this fifth reexamination, the Requester and CalAmp have filed follow-on reexamination requests against three other patents of the Patent Owner. This is the list of the other reexaminations and related statuses:

U.S. Patent No. **6,756,885** (expired August 22, 2016) Reexamination 90/013,741 resulting in Reexamination Certificate August 1, 2017.

U.S. Patent No. **6,756,885** (expired August 22, 2016) Reexamination 90/014,038 resulting in Reexamination Certificate October 25, 2019.

U.S. Patent No. **6,346,876** (expired August 22, 2016) Reexamination 90/013,659 resulting in Reexamination Certificate September 1, 2017.

U.S. Patent No. **6,346,876** (expired August 22, 2016) Reexamination 90/014,122 resulting in Reexamination Certificate March 23, 2020.

U.S. Patent No. **7,671,727** Reexamination 90/013,832 resulting in Reexamination Certificate August 1, 2017.

U.S. Patent No. **7,671,727** Reexamination 90/014,121 in Reexamination Certificate May 29, 2020, canceling all claims.

U.S. Patent No. **8,032,278** (unexpired)
Reexamination 90/013,587 resulting in Reexamination Certificate December 28, 2016.

U.S. Patent No. **8,032,278** (unexpired)
Reexamination 90/013,851 resulting in Reexamination Certificate February 6, 2019.

U.S. Patent No. **8,032,278** (unexpired)
Reexamination 90/014,309 resulting in Reexamination Certificate January 8, 2020.

U.S. Patent No. **8,032,278** (unexpired)
Reexamination 90/014,419, request for reexamination was denied, Requester filed a petition challenging the determination of no substantial new question of patentability on February 25, 2020.

The Patent Owner submits that the Requester's and CalAmp's duplicative and harassing efforts are improper. The Requester and CalAmp, having failed in their initial round of *ex parte* reexamination requests for the litigated patents, are now on to round five.

The Patent Owner submits that such sequential/serial requests for *ex parte* reexamination are a waste of USPTO resources. The Patent Owner submits that the Requester is abusing patent office procedures in a fashion that is fundamentally unfair to the Patent Owner.

C. The Request for Reexamination Included Misleading Information

The request for *ex parte* reexamination of the '278 patent for the present reexamination is based upon so-called recently identified U.S. Patent No. 6,611,740 to Lowrey et al. This is the second request filed by attorneys for Innova. The first request (denied) having been filed on December 16, 2019. Innova's customer, CalAmp, directly filed three of its own serial reexamination requests on: (1) September 14, 2015; (2) October 28, 2016; and (3) May 24, 2019. The litigation sparking this series of reexamination requests was filed against CalAmp on December 20, 2013 as noted above.

On pages 1-2 of the second request (fifth in the series), Requester's attorney states: "**[r]ecently**, additional prior art that was not previously considered by the United States Patent and Trademark Office ("USPTO") **has been identified** that is believed to raise a substantial new question of patentability." (Emphasis Added).

At a minimum, this language is misleading. Indeed, seventeen Innova patents cite this same reference, and predate the present reexamination request and the first Innova reexamination request. The "recently identified" Lowrey et al. patent **was cited in cases personally prosecuted by the attorney for the Requester**, see, e.g., U.S. Patent Nos. 10,643,403 (filed September 30, 2015 and issued May 5, 2020); 10,640,060 (filed March 8, 2017 and issued May 5, 2020); 10,462,225 (filed August 25, 2017 and issued October 29, 2019); and 10,163,281 (filed January 12, 2017 and issued December 25, 2018).

The Patent Owner notified the Requester of this misleading information in a communication dated March 5, 2021

(Exhibit 4) encouraging Requester to update the Patent Office regarding the "recently identified" reference. Requester responded to the Patent Owner, but chose not to advise the Patent Office despite this clear showing of repeated harassment of the Patent Owner. A copy of the Requester's response is attached as Exhibit 5.

The Patent Owner submits that the serial harassment of Patent Owner is evident and respectfully requests the Patent Office to confirm patentability of the rejected claims based on this reason alone.

D. The Request for Reexamination Should Not Have Been Granted

1. The Original Request Does Not Present An SNQ

The Patent Owner submits that the present *ex parte* reexamination should not have been granted based upon the combination of Lowrey et al. and Lightener et al. For a proper order for *ex parte* reexamination, the Patent Office must identify a "substantial new question of patentability." 35 U.S.C. §303(a).

> MPEP §2242(I) recites:
>
> a substantial new question of patentability as to the claim is present, unless the same question of patentability has already been: (A) decided in a final holding of invalidity by a federal court in a decision on the merits involving the claim, after all appeals; (B) decided in an earlier concluded examination or review of the patent by the Office; or (C) raised to or by the Office in a pending reexamination or supplemental examination of the patent.

The Patent Owner submits that present fifth reexamination request over Lowrey et al. is substantially identical to the second reexamination request of this same patent, which relied on the Chou et al. prior art reference. As detailed in Section II(B) herein, the disclosure of Lowery et al. is very similar to the disclosure of Chou et al. As in Chou et al., Lowrey et al. discloses a wireless appliance that can be physically and electrically installed in different vehicles, but is only operationally compatible with one vehicle. ("At best, Chou's controller is compatible with one vehicle, namely the particular vehicle whose fault codes correspond to that particular vehicle for which the controller was designed.", Exhibit 8, Decision on Appeal, page 11).

More so, in the present *ex parte* reexamination, the Requester relied upon a defective incorporation by reference to Lightener et al. to provide the missing multi-vehicle compatible controller. In the second *ex parte* reexamination request, Requester's customer, CalAmp, (the Requester in that reexamination) also relied upon a secondary prior art reference, SAE Manuals, to provide the missing multi-vehicle compatible controller. In short, the present reexamination is cumulative to the prior art already presented, considered, and rejected in the second reexamination.

2. The Present Reexamination Represents A Pattern Of Harassment

As noted above, the present fifth *ex parte* reexamination request of the '278 patent is representative of serial and duplicative harassment of the Patent Owner by the Requester (Supplier of CalAmp) and CalAmp.

Indeed, the one consistent beat throughout the multiple requests of reexamination is the formula of combining a tracker prior art reference with a secondary reference in an attempt to provide the multi-vehicle compatibility. The Requester has used this same formula again in the present *ex parte* reexamination.

Moreover, as noted hereinabove, the Requester has utilized the Lowrey et al. prior art reference similarly to the prior four failed prior requests for *ex parte* reexamination filed against the '278 patent. The Patent Owner submits that the USPTO should not have granted the present request since it is part of long standing pattern of duplicative harassment by CalAmp and its supplier, the Requester.

II. The Pending Claims

The claimed invention, as recited in independent Claim 1, for example, is directed to a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit comprises a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The multi-vehicle compatible tracking unit comprises a downloading interface for permitting

downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

Independent Claims 13 (patentability already confirmed) and 18 are directed to related multi-vehicle compatible vehicle tracking units. Independent Claim 13 recites that the downloading interface includes a connector for temporary connection to a downloading device. Independent Claim 18 recites that the downloading interface includes a wireless receiver for temporary connection to a downloading device.

III. The Prior Art Rejections Are In Error And The Claims Are Patentable

A. Lowrey et al. and Lightener et al. Fail to Disclose Each and Every Feature of the Claimed Invention

1. The ***Schema*** Teachings of Lowrey et al. Are ***Extremely Limited***

Lowrey et al., like much of the prior art repeatedly considered in previous reexams, discloses an Internet-based vehicle-diagnostic system including a wireless appliance in electrical contact with an in-vehicle computer and that can report position data from a GPS device. (See Figure 1, reproduced below).

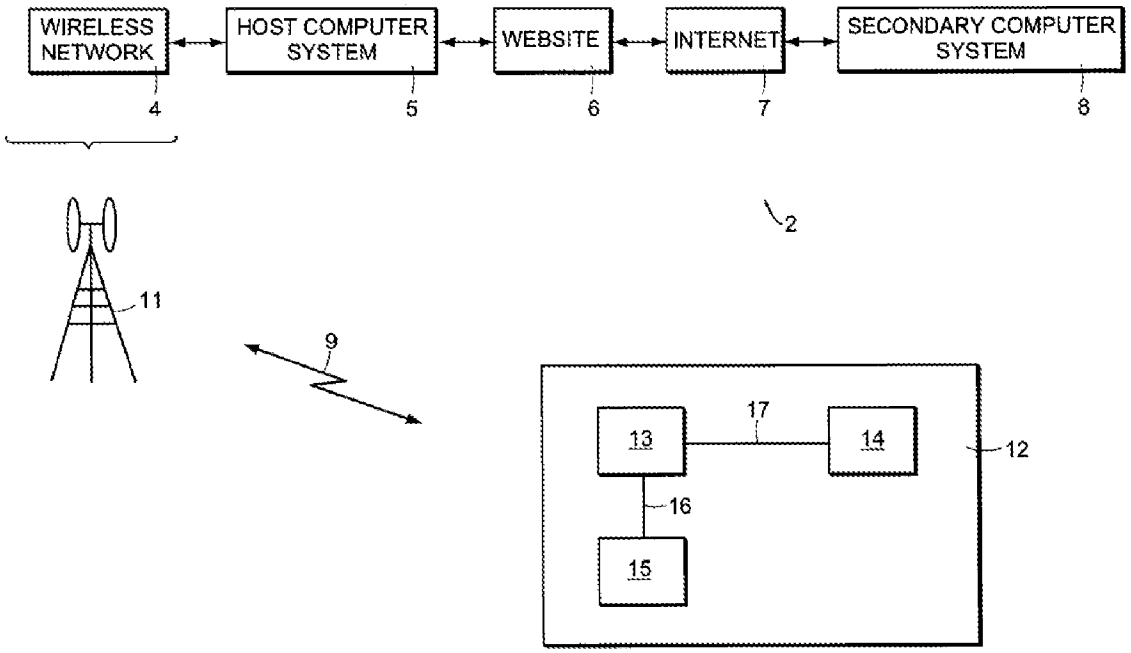


Figure 1 of Lowrey et al.

As noted in the Second McAlexander Declaration, to be installed in a given vehicle, Lowrey et al. states: "[a] schema specific to a given type of vehicle is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle (step 22 in FIG. 2)." (Col. 6, lines 62-65: Emphasis Added; and *see* Exhibit 7, page 6). As described in Figure 2, the wireless appliance is installed with an "original data-collection schema". (See Figure 2, reproduced below).

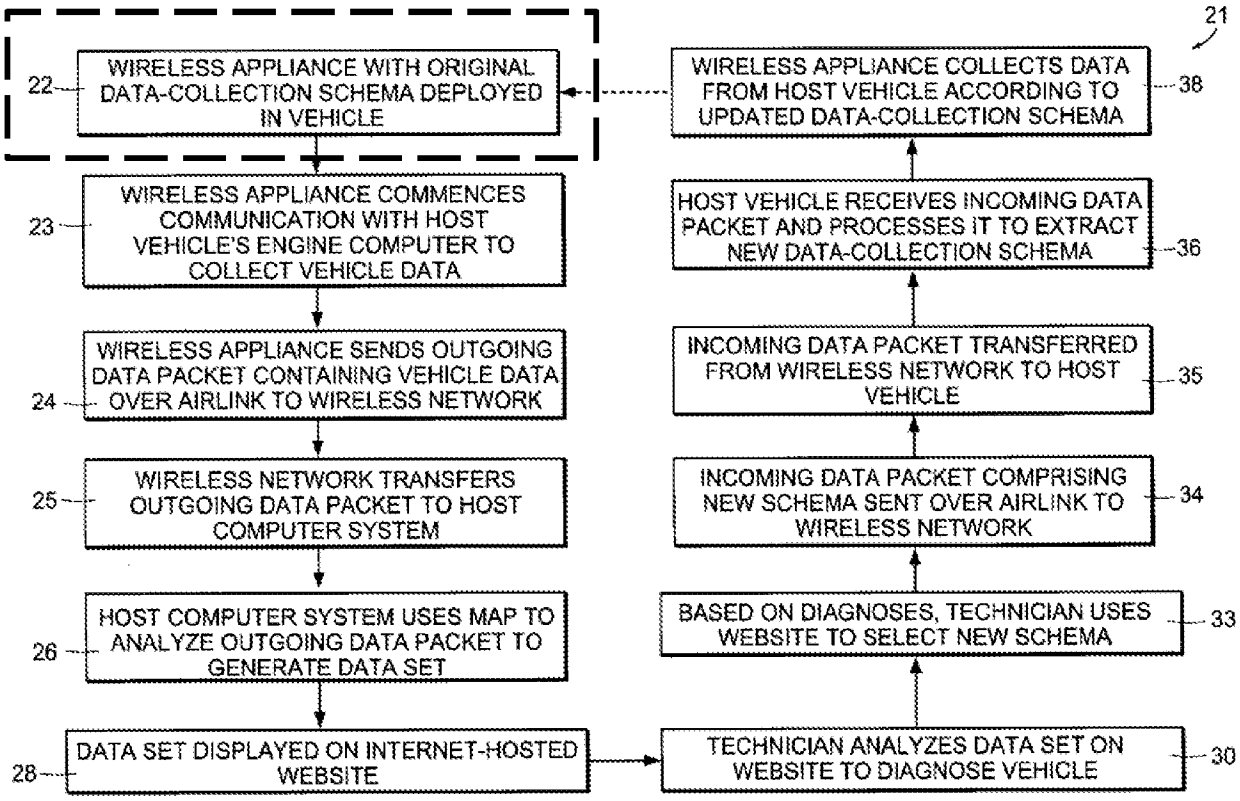


Figure 2 of Lowrey et al. (Annotated)

Once installed in the given vehicle, Lowrey et al. describes the schema as follows:

> **a schema component that identifies the diagnostic data to be collected from the vehicle's computer.** The schema component features an **address** that describes a location of a diagnostic datum in the vehicle's computer memory. It can also describe a **time or frequency** that **the data-collection component collects data from the vehicle's computer,** or a time or frequency that the data-transmission component transmits an outgoing data packet. (Col. 2, line 64 through Col. 3, line 5: Emphasis Added).

> Lowrey et al. further recites:
>
> a technician working at a vehicle-service center logs into the web site and analyzes the data set corresponding to a particular vehicle to diagnose a potential mechanical or electrical problem (step 30). ...
>
> Based on the analysis, the technician may decide that additional data are required, or that data need to be collected and transmitted at a higher or lower frequency. In this case **the technician uses the web site to select a new schema** (step 32) and then sends an incoming data packet that includes **a new schema over the wireless network to the wireless appliance included in the vehicle being diagnosed** (step 34). ...
>
> **The host vehicle receives the packet** [in which the wireless appliance is already installed] and processes it to extract the new data-collection schema (step 36). The wireless appliance uses the **updated schema to extract a revised set of data from the vehicle's engine computer, or send out data at a revised frequency** (step 38). (Col. 7, lines 14-37: Emphasis Added).

In other words, the wireless appliance is installed into the given vehicle with an original schema for that given vehicle. (*See* Exhibit 7, page 6). The schema itself is an "address that describes a location of a diagnostic datum in the vehicle's computer memory". (Col. 2, line 67; and *see also* Exhibit 7, page 6). If the technician reviewing the data transmitted from the wireless appliance to the remote host computer system needs more data, the technician commands the transmission of new schema for the same given vehicle to collect

additional data. In other words, as noted in the Second McAlexander Declaration, the new schema is for collecting more data for the same vehicle. (Exhibit 7, page 6).

Furthermore, the Patent Owner respectfully submits that Lowrey et al. fails to disclose "a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller", as recited in independent Claim 1, for example. In construing this claim feature, the PTAB noted: "this enabling data enables the recited controller to use a particular vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code." (Exhibit 8, Decision on Appeal, Page 12, Emphasis Added; and *see also* Exhibit 7, page 6).

In the final Official Action, the Examiner noted:

> the Office notes that the disclosed data packet containing a new schema is consistent with the Office's interpretation of the claimed "enabling data" as including data that otherwise enables the controller to select or generate the code, since said new schema, which includes the data to collect and its location, enables the wireless appliance to collect that particular data, i.e., to use that particular vehicle device code from among plural such codes for different vehicles corresponding to different schemas). (Page 32).

As detailed above, the technician commands transmission of a new schema while the wireless appliance is

installed in the same given vehicle. The schema only commands collection of additional data on the same vehicle. Therefore, Lowrey et al. fails to disclose the claimed enabling data feature.

2. The Wireless Appliance of Lowrey et al. Is Not The Multi-Vehicle Compatible Controller As Defined in the Claims

The Patent Owner respectfully submits that Lowrey et al. fails to disclose "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles", as recited in independent Claim 1, for example.

> In the final Official Action, the Examiner states:
>
> a multi-vehicle compatible controller (see disclosure of the data-collection component of in-vehicle wireless appliance 13, and that said data-collection component includes a microcontroller, col, 6, lines 55-61; see also disclosure that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can easily be transferred from one vehicle to another [i.e., multi-vehicle compatible], col. 4, lines 59-63) for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information (Page 29: Emphasis Added).

Whether the wireless appliance of Lowrey et al. can be physically and electrically installed in different vehicles is not pertinent. Rather, as supported in the Second McAlexander

Declaration, Lowrey et al. is operationally compatible with one vehicle, namely the given vehicle whose memory locations correspond to that particular vehicle for which the wireless appliance and associated original schema were designed. (See Exhibit 7, page 6). As the Examiner will recognize, this is similar to the deficiencies of Chou et al. correctly acknowledged by the PTAB in the related Second *Ex parte* Reexamination of the '278 patent. Indeed, the PTAB noted:

> [a]t best, Chou's controller is compatible with one vehicle, namely the particular vehicle whose fault codes correspond to that particular vehicle for which the controller was designed. Accord App. Br. 32 (noting that Chou's ECU s use their own respective trouble codes that are different for different vehicles). Although Chou's remote service center can work with different vehicle device codes using a server 201 and repository 203 in Figure 1 as Appellant acknowledges (App. Br. 37), Chou does not teach or suggest providing such a capability in a vehicle.
> (Exhibit 8, Decision on Appeal, pages 11-12): Emphasis Added.

3. Lowrey Et Al. Teachings Are Similarly Deficient As Chou Et Al.

Lowrey et al., like much of the prior art repeatedly considered in previous reexams, discloses an Internet-based vehicle-diagnostic system including a wireless appliance in electrical contact with an in-vehicle computer and that can report position date from a GPS device. (See Figure 1, reproduced above).

With respect to independent Claims 1 and 18, the

Patent Owner respectfully submits that Lowrey et al. fails to disclose or fairly suggest the claimed features of:

> said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and
>
> a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

Rather, Lowrey et al. is very similar in disclosure to the respective primary references applied in the prior four *ex parte* reexaminations of the '278 patent. In short, the typical formula includes combining a vehicle tracker prior art reference with a secondary reference in an attempt to provide the multi-vehicle compatibility.

In the first *ex parte* reexamination of the '278 patent, CalAmp failed in its attempt to invalidate the claims by applying Suman et al. and Spaur et al. (Cell Port Labs patent), and Beckert et al.

In the second *ex parte* reexamination of the '278 patent, CalAmp failed in its attempt to invalidate the claims by applying Chou et al.

In the third *ex parte* reexamination of the '278 patent, CalAmp failed in its attempt to invalidate the claims by applying a Cell Port Labs Press Release, Spelt et al., and the SAE HS-3000 Manuals, and separately over Jones et al. and the SAE HS-3000 Manuals.

In the fourth *ex parte* reexamination of the '278

patent, CalAmp's supplier, the Requester, failed in its attempt to raise a substantial new question of patentability by applying Flick '551, Brinkmeyer, Monroe, Drori, Space Daily Trimble, Mateja, and Holusha.

In the present *ex parte* reexamination, the Examiner correctly notes that Lowrey et al. fails to disclose or fairly suggest the multi-vehicle features of the claims. In particular, the Examiner noted: "[t]o the extent that Lowrey does not explicitly teach additional details of how the diagnostic data is vehicle-specific, Lightner discloses these additional details at col. 6, lines 26-34 [reproduced portion of Lightner omitted]." (Official Action 6-21-2021, page 14).

The cited portion of the secondary reference to Lightner et al. recites:

> [d]epending on the make and model of the vehicle, the data packet can contain hundreds of datum that describe, e.g.: i) basic properties of the power train (e.g., emission levels, fuel-System Status, engine temperature, Speed and odometer readings, anti-lock brake Status, RPMs, fuel and intake manifold pressure); and ii) manufacturer-specific information (e.g., status of the door locks, airbags, and entertainment center). In total, for most vehicles there are typically more than 300 datum that can be included in the data packet. (Col. 6, lines 26-35).

This same deficiency in multi-vehicle compatibility was found within Chou et al., as correctly recognized by the PTAB in the second reexamination of the '278 patent. Indeed, Chou et al. similarly could be physically and electrically installed in different vehicles. In that second reexamination,

the current Requestor's customer also tried to make up for the multi-vehicle compatibility deficiency by relying on references to SAE manuals. The Patent Owner submits that the current rejection is similarly deficient to the rejection over Chou et al. and should be withdrawn.

B. Evidence of Secondary Considerations and Declaration Evidence

1. There is Nexus Between The Evidence Of Secondary Considerations Supporting Non-obviousness And The Claimed Invention

In the Final Official Action, the Examiner stated: "[i]n this case, upon consideration of Patent Owner arguments and the statements set forth in the McAlexander Declaration, it has been determined that there is no nexus between the merits of the claimed invention and the submitted evidence." (Official Action 10-5-2021, page 17: Emphasis Added).

As detailed herein, the Patent Owner submits there is nexus between the copious amounts of evidence of secondary considerations supporting non-obviousness and the claimed invention. For example, there is a jury verdict finding the infringement/copying of the '278 patent's claims. This finding of infringement was confirmed by the Federal Circuit. Moreover, the jury verdict found evidence of that the licensing, commercial success, copying by others, and customer need was due to the merits of the claimed invention.

What more, the Jury Verdict indicated the limited value of products without the claimed invention. This finding was supported by the employees of the Requester's customer, who admitted during testimony that they copied the multi-vehicle

compatibility of the '278 patent because their customers demanded the feature, and that their product had limited value without the critical multi-vehicle compatibility of the '278 patent. (*See infra*, Peter Hergesheimer deposition, 46:25 – 47:19, "Do you know whether the LMU3000 would have any value if it didn't work on multiple vehicles? It would have a limited value.").

2. Introduction

To rebut the Examiner's obviousness rejections, the Patent Owner offers the following secondary considerations supporting non-obviousness. This evidence was presented and considered favorably by the **Patent Trial and Appeal Board (PTAB)** in the second *ex parte* reexamination of the '278 patent. The PTAB stated that "**we add that Appellant's evidence of secondary considerations of non-obviousness, including licensing, commercial success, copying by others, customer need, and the limited value for accused products without the invention, only further weighs in favor of Appellant.**" (Exhibit 8, Decision on Appeal, Application Serial No. 90/013,851, page 14: Emphasis Added).

As noted by the Federal Circuit in *Mintz v. Dietz*, 679 F.3d 1372 (Fed. Cir. 2012), the following helpful guidance is provided with respect to the objective criteria of secondary considerations:

> [t]hese objective criteria thus help turn back the clock and place the claims in the context that led to their invention. Technical advance, like much of human endeavor, often occurs through incremental steps toward greater goals. These marginal advances in

> retrospect may seem deceptively simple, particularly when retracing the path already blazed by the inventor. For these reasons, this court requires consideration of these objective indicia because they "provide objective evidence of how the patented device is viewed in the marketplace, by those directly interested in the product."
> (*Id.* at 1378; emphasis added).

Mintz further provides:

> [i]ndeed, where the invention is less technologically complex, the need for Graham findings can be important to ward against falling into the forbidden use of hindsight. Simply because the technology can be easily understood does not mean that it will satisfy the legal standard of obviousness. In fact, objective consideration of simple technology is often the most difficult because, once the problem and solution appear together in the patent disclosure, the advance seems self-evident. Instead, the proper analysis requires a form of amnesia that "forgets" the invention and analyzes the prior art and understanding of the problem at the date of invention.
> (*Id.* at 1379; emphasis added).

The Patent Owner sets forth below evidence of licensing, commercial success, copying by others, customer need, and limited value of products without the claimed invention.

3. Licensing

The '278 patent in Claim 1, for example, is directed to a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit comprises a vehicle

position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The multi-vehicle compatible tracking unit comprises a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

The Patent Owner points to the following excerpt from the First Jury Verdict form (Exhibit 2) from the related litigation with establishing the merits of the claimed invention and the licenses:

> 5. Which of the following factors that tend to indicate nonobviousness, if any, has been established by the evidence with respect to the claimed invention (write the word "yes" in the blank below to any question that you answer "yes" to):
>
> YES Did others accept licenses under patents because of the merits of the claimed invention?

In other words, after observing all of the testimony of the witnesses, reviewing the exhibits presented during trial, and applying the Court's Jury Instructions, the Jury determined that the licenses were based on the merits of the claimed invention, including the '278 patent.

As noted in First McAlexander Declaration (Exhibit 1, paragraph 24(b)), the Patent Owner has received in excess of $70 million in licensing revenue, from the '278 patent and the other asserted patents in the related litigation.

Mr. McAlexander also notes that the '278 patent is one of three patents asserted in the related litigation providing features for multi-vehicle compatibility; and, multi-vehicle compatibility is important for the overall licensing program of the Patent Owner. (Exhibit 1, paragraph 24(c)).

Mr. McAlexander cites to CalAmps's own employees' trial testimony for the propositions that the multi-vehicle compatibility provides for simplified installation and avoids the need to have multiple SKUs (stock keeping units). (Exhibit 1, paragraph 24(e)). Further details regarding the "customer need" and "limited value" without the multi-vehicle compatibility are provided below.

4. Commercial Success

The Patent Owner respectfully points to the following excerpt from the First Jury Verdict form from the related litigation that provides evidence of commercial success due to the merits of the claimed invention:

5. **Which of the following factors that tend to indicate nonobviousness, if any, has been established by the evidence with respect to the claimed invention (write the word "yes" in the blank below to any question that you answer "yes" to):**

YES Were accused products covered by the claim commercially successful due to the merits of the claimed invention rather than due to advertising, promotion, salesmanship, or features of the product other than those found in the claim?

Furthermore, the Jury also determined that the features of the '278 patent were included in the infringing devices of the Requester's customer (CalAmp) (in both trials). The Jury determined that asserted claims of the '278 patent were infringed. The Jury Verdict evidences that products supplied to CalAmp by the Requester correspond to the claimed invention.

This is the pertinent portion of the Second Jury Verdict form:

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 8	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 11	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 12	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No		
Claim 13	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 14	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 16	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 18	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 19	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 21	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No

As noted in the First McAlexander Declaration, CalAmp was found to infringe with 917,223 units of the accused products. (Exhibit 1, paragraph 24(f)).

Mr. McAlexander also notes that the '278 patent is one of three patents asserted in the related litigation providing features for multi-vehicle compatibility; and, multi-vehicle compatibility is important for the overall licensing program of the Patent Owner. Mr. McAlexander cites to CalAmp's (customer of Requester) own employees' trial testimony for the propositions that the multi-vehicle compatibility provides for simplified installation and avoids the need to have multiple SKUs (stock keeping units). (Exhibit 1, paragraph 24(c) and 24(e)).

5. Copying by Others

Once again, the Patent Owner points to the following excerpt from the First Jury Verdict form from the related litigation that establishes copying:

5. **Which of the following factors that tend to indicate nonobviousness, if any, has been established by the evidence with respect to the claimed invention (write the word "yes" in the blank below to any question that you answer "yes" to):**

YES **Did others copy the claimed invention?**

The Jury's finding of infringement of the asserted claims of the '278 patent (provided above) establishes that Requester's products supplied to CalAmp correspond to the claimed invention.

6. Customer Need

The Patent Owner directs the Examiner's attention first to the Court's determination in the first trial of the related litigation. In its Final Order, the Court provides:

> Rather than take a license, and choosing not to design around Omega's patents, CalAmp elected to sell infringing products and continues to do so to this day. CalAmp's motivation to engage in this behavior is obvious: their customers wanted this technology and CalAmp [Supplied by the Requester] wanted to provide it. (Exhibit 6, Final Order, page 19; Emphasis added.)

The First McAlexander Declaration provides that the multi-vehicle accused products in the CalAmp litigation were developed because of "customer need" for a simple installation that did not require splicing of wires. (Exhibit 1, paragraph 24(i)). Mr. McAlexander's position is supported by the following testimony of Mr. Stephen Hall and Mr. Peter Hergesheimer, both CalAmp employees, as follows:

Testimony of CalAmp Employee Stephen Hall

Q. Can you introduce yourself for the record

A. Yes. My name is Stephen Hall. The correct spelling is S-t-e-p-h-e-n.

Q. All right, sir. And by whom are you employed?

A. I'm an employee of CalAmp Corporation.

Q. Do you have a title at CalAmp?

A. My official title is director of system

engineering and technology.

Q. What does it mean to be the director of system engineering and technology at CalAmp?

A. My role is to look at the needs of our customer and market and to match them up with various technologies that are going on in the industry component level and otherwise to make sure that we have an appropriate solution. (Stephen Hall deposition, 6:8-22).

Q. All right, sir. I'm going to hand you what was previously marked as Exhibit 1 to the deposition of Mr. Hergesheimer. Can you tell me what Exhibit 1 is?

A. I'm looking at a CalAmp datasheet for the LMU-3000 product.

Q. And were you involved in the development of the LMU-3000?

A. I was.

Q. And what was your role in developing the LMU-3000?

A. My role on the 3000 was at the CRS level. I provided the requirements document for that. The various blocks within it were predefined by our existing partnerships, and so I didn't do a lot of component selection type of work, so it was really limited just to the CRS document.

Q. Was there a particular market need that you identified leading up to the creation of the CRS for the LMU-3000?

A. The 3000 was driven by a general market need that we heard from a number of customers. The primary interest was coming from a need for a *simple installation type of solution* and the opportunity to enhance the capability of the product that we could offer with certain data items coming off of the vehicle bus. (Stephen Hall deposition, 6:8-22; and 40:20-41:12; Emphasis added).

Testimony of CalAmp Employee Peter Hergesheimer

Q. You have been designated as a representative on whether CalAmp has willfully or deliberately infringed in this case. Beyond knowing about the devices and how they operate, do you know anything about CalAmp's assertions that its actions are not willful or deliberate?

A. I would say from my experience in the development of these devices that there's no willful infringement.

Q. And -- and what's that based on?

A. That's based on knowing where the -- the technology that we use came from and the fact that these were sales-driven requests and somebody had a problem to solve and we went about solving the problem.

Q. What do you mean sales-driven request?

A. Well, typically our -- typically we have a customer that says hey, I would like to do this particular -- have a product that has this feature and so CalAmp goes about designing that product.

Q. So the LMU3000 development was the result of – or was -- was undertaken because customers expressed a demand to CalAmp for these products?

A. I -- I believe that's the case. I can't say specifically for these, but that's in general how our product development works. (Peter Hergesheimer deposition, 40:6 – 41:3).

7. Limited Value for Products Without the Invention

The Examiner's attention is directed to the section above regarding Commercial Success. The Patent Owner asserts that the accused products as covered by the '278 patent would have "limited value" if it were not for multi-vehicle compatibility. CalAmp's own employee, Peter Hergesheimer, testified as follows:

Testimony of CalAmp Employee Peter Hergesheimer

Q. Can you state your name for the record.

A. Peter Hergesheimer.

Q. All right. Sir, and by whom are you employed?

A. CalAmp.

Q. Okay. And what's your position at CalAmp?

A. I'm the senior director of software and architecture in the MRM group. (Peter Hergesheimer deposition, 6:2-8).

Q. Do you know whether the LMU3000 would have any value if it didn't work on multiple vehicles?

A. It would have a limited value.

Q. You would need separate skus for each vehicle; right?

A. That would be one way of solving that problem.

Q. Is there any other way?

A. Different skus could be different software got loaded onto the same sku.

Q. Okay. So you can -- whether you have a different sku or not, you would need to -- if -- if the LMU3000 was vehicle specific, it would need software for each vehicle in which it was -- separate software for each vehicle in which it was designed to work?

A. Each vehicle type I would guess, yes.

Q. And that would be a more expensive exercise, I would think, from CalAmp's perspective?

A. Yes.

Q. And less desirable than the -- than the option

you have now where the LMU is able to service multiple vehicles?

A. Yes, even though it is still pretty painful.

(Peter Hergesheimer deposition, 46:25 – 47:19; Emphasis added).

In view of the evidence of secondary considerations the Patent Owner submits that any obviousness type rejection of the pending claims is rebutted.

CONCLUSION

In view of the arguments presented above and the evidence submitted herewith, it is submitted that all of the claims are patentable. Accordingly, a Reexamination Certificate confirming all claims as patentable is respectfully requested in due course. Should any minor informalities need to be addressed, the Examiner is encouraged to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized to charge or credit any discrepancies in fee amounts to Deposit Account No. 01-0484.

Respectfully submitted,

/JACK ABID/

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CERTIFICATE OF SERVICE

Certificate of Service in compliance with 37 C.F.R. §1.530(c)

Pursuant to 37 C.F.R. §§1.530(c), 1.248, I hereby certify that on December 6, 2021, a complete copy of this Request is being served via First Class U.S. Mail upon Third Party Requester at the correspondence address as shown in PAIR:

Mark B. Garred
STETINA BRUNDA GARRED & BRUCKER
75 Enterprise, Suite 250
Aliso Viejo, California 92656

Respectfully submitted,

/JACK GEORGE ABID/

_____
Jack G. Abid

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: **KENNETH E. FLICK**	
Request for Reexamination of **8,032,278**	
Control No. **90/014,675**	Attorney Docket No.: **(58106CIP1_REX5)**
Confirmation No. **7247**	
Filing Date: **2/16/2021**	Examiner: **L. WASSUM**
For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	Art Unit: **3992**

SECOND DECLARATION BY JOSEPH C. McALEXANDER, III UNDER 37 C.F.R. §1.132

I, the undersigned, hereby declare that:

I. Background

1. In formulating my opinions, I have relied upon my training, knowledge, and experience in the relevant art.

2. I am the Founder and President of McAlexander Sound, a professional engineering company, formerly the IP Director of CCI, a leader in the field of underwater wireless dive computers, Vice President of EPI Technologies, Inc., a systems and integrated circuit testing and reliability certification company, and a design and product manager at Texas Instruments. I have 49 years of experience in microcircuit and semiconductor technologies, including: device design, fabrication, assembly, testing, and marketing; control system

design and analysis; and quality, reliability, and defect/failure analysis.

3. I am a technical expert in the subject matter areas relevant to this *ex parte* reexamination, including design and testing of circuits and systems related to control systems employing wireless communication protocols and operation, information storage and transfer, user interfaces, information signal processing, applications and operating systems, and electronic device hardware and firmware design and control. From 2000-2003, I represented Toyota as its 30(b)(6) witness and technical expert focused on vehicle alarm systems.

4. I am a Registered Professional Engineer (#79454) in the State of Texas and hold a Bachelor of Science degree in Electrical Engineering from North Carolina State University.

5. I am an inventor on 31 U.S. patents and 8 foreign patents, and I am familiar with the patent process. Five of the patents (3 U.S. and 2 EP) are directed to MEMs technology for vehicle air bag sensor deployment. Twenty of the patents (19 U.S. and 1 EP) are directed to mobile device/object tracking, such as is used to track vehicles.

6. I have been an expert witness and technical consultant for the past 32 years in IP matters related to product/process analysis and investigation.

7. I prepared expert reports and provided trial testimony in the case of Omega Patents, LLC (the '278 Patent Owner) v. CalAmp Corp. (the Requester supplies the defendant with the infringing product) that recently concluded in the Middle District of Florida (hereinafter referred to as the "CalAmp litigation"). In that CalAmp litigation, the '278 patent was asserted and determined by the jury to be not invalid, and to be infringed by CalAmp. (First Jury Verdict, Exhibit 2). In the Court's Final Order of April 5, 2017 (Exhibit 6), the Court confirmed that the asserted claims were not invalid (including the claims of the '278 patent).

8. I have been retained by the Patent Owner to provide technical consultation in the present reexamination of the '278 patent, particularly with respect to addressing rejections based upon Lowrey et al. and Lightener et al.

II. The '278 Patent and Current Office Action

9. I have extensively reviewed the '278 patent, along with its file history, and arguments advanced by CalAmp's trial expert, Mr. Andrews, as part of my work on behalf of the Patent Owner during the course of the CalAmp litigation. I have also reviewed the related litigation trial transcript and exhibits, and have reviewed the Court's Final Order of April 5, 2017, and Final Judgment of April 24, 2017.

10. I have reviewed the current Office Action dated October 5, 2021 for the fifth reexamination of the '278 patent. In that Office Action, the claims were rejected as follows:

Claims 1, 4-11 and 18-22 were rejected over Lowrey et al. in view of Lightener et al.

11. Representative Claim 1 of the '278 patent is directed to a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit comprises a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The multi-vehicle compatible tracking unit comprises a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller. Independent Claim 13 (patentability already confirmed) recites that the downloading interface includes a connector for temporary connection to a downloading device. Independent Claim 18 recites that the downloading interface includes a wireless receiver for temporary connection to a downloading device.

III. The Prior Art Analysis

12. I understand that Lowrey et al. discloses an internet-based vehicle-diagnostic system with a wireless appliance in electrical contact with an in-vehicle computer that

can report position date from a GPS device. The wireless appliance operates based upon a schema to select packets from the in-vehicle computer. These packets are transmitted to a host computer system for processing.

13. I understand that Lightener et al. discloses a wireless diagnostic system in communication with a plurality of vehicles. The wireless diagnostic system also comprises a host computer system, and data collectors in each of the vehicles. The data collector queries data from the ODB bus in the vehicle, and sends the data over a wireless network. Data is retrieved from the vehicle periodically. Lightener et al. also notes: "[d]epending on the make and model of the vehicle, the data packet can contain hundreds of datum that describe, e.g.: i) basic properties of the power train (e.g., emission levels, fuel-System Status, engine temperature, Speed and odometer readings, anti-lock brake Status, RPMs, fuel and intake manifold pressure); and ii) manufacturer-specific information...". (Col. 6, lines 26-33).

14. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. fails to disclose the multi-vehicle compatible controller and downloading interface of the claimed vehicle tracking unit, as these claim recitations are interpreted by the Examiner.

15. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. discloses a limited

schema feature that is "specific to a given type of vehicle [] typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle (step 22 in FIG. 2)." (Col. 6, lines 62-65).

16. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. discloses the schema component that provides a memory location for diagnostic datum to be collected along with a time or frequency for collection.

17. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. discloses transmitting a new schema while it is installed in a given vehicle being diagnosed rather than "enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller", as recited in independent Claim 1.

18. It is my opinion that one of ordinary skill in the art would recognize that the transmitted schema of Lowrey et al. is not multi-vehicle compatible since it is already installed in the given vehicle being diagnosed.

19. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. discloses a wireless appliance that is operationally compatible with only one vehicle, namely the given vehicle whose memory locations

correspond to that particular vehicle for which the wireless appliance and associated original schema were designed.

20. It is my opinion that Lightener et al. fails to make up for the deficiencies of Lowrey et al.

21. I hereby declare further that all statements made herein are of my own knowledge and are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful and false statements may jeopardize the validity of the application or any patent issued thereon.

Joseph C. McAlexander, III — 12-3-2021
Joseph C. McAlexander, III — Date

UNITED STATES PATENT AND TRADEMARK OFFICE

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7590 11/13/2018

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ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
11/13/2018	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte OMEGA PATENTS, L.L.C.
Patent Owner and Appellant

Appeal 2018-008119
Reexamination Control 90/013,851
United States Patent 8,032,278 B2
Technology Center 3900

Before JOHN A. JEFFERY, MARC S. HOFF, and ERIC B. CHEN, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Patent Owner appeals under 35 U.S.C. §§ 134 and 306 the Examiner's decision to reject claims 1–22. We have jurisdiction under 35 U.S.C. §§ 134 and 306, and we heard the appeal on October 31, 2018. We reverse.

STATEMENT OF THE CASE

This proceeding arose from a request for *ex parte* reexamination filed on October 28, 2016 of United States Patent 8,032,278 ("the '278 patent"), issued to Kenneth E. Flick on October 4, 2011.

The '278 patent describes a tracking unit that is compatible with multiple vehicles. To this end, the tracking unit includes a multi-vehicle compatible controller that communicates with a vehicle device using a corresponding vehicle device code from among plural codes. The unit also has a downloading interface that permits downloading enabling data related to the corresponding vehicle device code, where enabling data may be (1) the vehicle device code; (2) an instruction to select a code from among those already stored; or (3) the data or sequence to allow the controller to generate the vehicle device code. *See generally* '278 patent, Abstract; col. 23, l. 41 – col. 24, l. 4.

Claim 1 is illustrative of the invention and is reproduced below:

1. A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible tracking unit comprising:
    a vehicle position determining device;
    a wireless communications device;
    a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

RELATED PROCEEDINGS

This appeal is said to be related to various proceedings. First, Appellant informs us that briefs have been filed with the Court of Appeals for the Federal Circuit in connection with related litigation between Patent Owner and Requester (CalAmp). App. Br. 7–8; Reply Br. 2.[1] Also, a second litigation against Enfora, Inc. is said to be stayed pending the outcome of this reexamination. App. Br. 9; Reply Br. 2.

Appellant also informs us of seven other *ex parte* reexamination proceedings involving four patents, one of which (Control No. 90/013,587) resulted in issuing a reexamination certificate confirming patentability of the '278 patent's claims. *See* App. Br. 9–12; Reply Br. 3; *see also* US 8,032,278 C1, issued Dec. 28, 2016.

THE REJECTIONS

The Examiner rejected claims 1, 4–8, 11, 12, and 18–21 under 35 U.S.C. § 102(b) as anticipated by Chou (US 6,330,499 B1; issued Dec.

[1] Throughout this opinion, we refer to (1) the Appeal Brief filed February 27, 2018 ("App. Br."); (2) the Examiner's Answer mailed May 14, 2018 ("Ans."); and (3) the Reply Brief filed July 13, 2018 ("Reply Br.").

11, 2011), or, alternatively, under 35 U.S.C. § 103 as obvious over Chou. Ans. 30–42.

The Examiner rejected claims 9, 10, and 22 under 35 U.S.C. § 103 as obvious over Chou and Suman (US 6,028,537; issued Feb. 22, 2000). Ans. 42–46.

The Examiner rejected claims 2, 3, and 13–16 under 35 U.S.C. § 103 as obvious over Chou and Spaur (US 5,732,074; issued Mar. 24, 1998). Ans. 46–49.

The Examiner rejected claim 17 under 35 U.S.C. § 103 as obvious over Chou, Suman, and Spaur. Ans. 50.

PROCEDURAL MATTERS

Before addressing the merits of the Examiner's rejections at issue in this appeal, we first address several procedural matters. First, Appellant's contention that the Examiner improperly refused to enter various exhibits attached to the Final Office Action (App. Br. 16–19) is a petitionable—not appealable—matter and is, therefore, not before us.[2] *Accord* Ans. 3 (noting this petitionable matter).

We reach the same conclusion regarding Appellant's contention that the present reexamination was allegedly improperly granted. App. Br. 54–

[2] *See* MPEP § 706.01 ("[T]he Board will not hear or decide issues pertaining to objections and formal matters which are not properly before the Board."); *see also* MPEP § 1201 ("The Board will not ordinarily hear a question that should be decided by the Director on petition . . . .").

61. To be sure, the propriety of an Examiner's determination that a substantial new question of patentability (SNQ) exists in an *ex parte* reexamination proceeding is appealable to this Board so long as certain procedural requirements are satisfied. *See* MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) § 2274(VI) (9th ed. Rev. 08.2017, Jan. 2018).

But that is not the case where, as here, Appellant does not squarely address—let alone persuasively rebut—the Examiner's SNQ determination. *See* App. Br. 54–61. Rather, Appellant argues that due to the alleged inequities of multiple reexamination requests against the same claims of the same patent in this proceeding, we should apply a standard similar to that used by the Board in deciding to institute trials for follow-on petitions in *inter partes* review proceedings. *See id.*

We decline to do so here. Not only are Appellant's procedural grievances petitionable matters, they do not show error in the Examiner's SNQ determination. To the extent Appellant contends otherwise, we disagree.

THE OBVIOUSNESS REJECTION OVER CHOU

The Examiner finds that Chou discloses or suggests every recited element of independent claim 1 including a multi-vehicle compatible controller (e.g., processor 300 and memory 350) to be coupled to a vehicle data bus 140 for communication thereover with at least one vehicle device (electronic control unit (ECU) 103) using at least one vehicle device code, namely a diagnostic trouble code (DTC) or fault code, from among a plurality thereof for different vehicles. Ans. 31–35. The Examiner reasons

that because Chou's fault code is vehicle model dependent, the code can be used by the vehicle device from among plural such codes. *See* Ans. 4–5, 35. The Examiner adds that Chou also discloses or suggests a downloading interface (e.g., network interface 107, 320) for permitting downloading "enabling data" (e.g., instructions to gather data and vehicle parameter changes) related to at least one corresponding vehicle device code for use by the controller. Ans. 35–36.

Appellant argues that Chou does not teach or suggest the recited multi-vehicle compatible controller and downloading interface. App. Br. 19–35; Reply Br. 4–11. Although Appellant acknowledges that Chou's vehicle-dependent fault codes are listed in a Society of Automotive Engineers (SAE) publication, Appellant nonetheless emphasizes that these codes lack uniformity between manufacturers, and even within product lines of the same manufacturer—a problem that is said to be addressed by the claimed invention. App. Br. 24–26. According to Appellant, the Examiner's equating different vehicles in the context of the claimed invention to those of the same make and model, namely vehicles with identical electronics and vehicle codes, but with different trims, is inconsistent with the disclosure and, therefore, unreasonable. Reply Br. 6–9.

Appellant also argues that Chou does not teach or suggest the recited downloading interface, but rather merely passes data between an in-vehicle system and a remote service center. App. Br. 25–29. According to Appellant, Chou teaches away from the claimed invention by working with different vehicle codes at the service center—not the vehicle. App. Br. 35–38. Appellant adds that evidence of secondary considerations of non-

obviousness, including licensing, commercial success, copying by others, customer need, and the limited value for accused products without the invention, further rebuts the Examiner's obviousness rejection. App. Br. 38–54; Reply Br. 11.

ISSUE

Under § 103, has the Examiner erred in rejecting claim 1 by finding that Chou would have taught or suggested the recited multi-vehicle compatible controller and downloading interface?

ANALYSIS

We begin by construing a key disputed limitation of claim 1 which recites, in pertinent part, a multi-vehicle compatible controller. The Specification does not define the term, but does describe a multi-vehicle compatible controller 111 in Figure 10 that includes, among other things, a central processing unit 126 and input/output (I/O) circuitry 127 that interfaces with a vehicle device 121 using at least one corresponding vehicle device code from plural codes for different vehicles. '278 patent, col. 23, ll. 59–67. The corresponding vehicle code may be for reading from, or writing to, the vehicle device. *Id.* col. 23, l. 67 – col. 24, l. 3.

In related litigation involving the '278 patent, a U.S. District Court construed the term "multi-vehicle compatible controller" as "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle"—a construction that neither party disputed. *See Omega Patents, LLC v. CalAmp Corp.*, No. 6:13-cv-1950-Orl-40DAB,

(M.D. Fla. Feb. 20, 2015) ("Dist. Ct. Claim Construction Order"), at 6, 24, *cited in* App. Br. Rel. Proc. App. ("Item 8"). Although we apply a claim construction standard in *ex parte* reexamination proceedings different from that used by the court, we nonetheless find that the court's construction is consistent with the term's broadest reasonable interpretation in light of the Specification. *Accord Power Integrations, Inc. v. Lee*, 797 F.3d 1318, 1326–27 (Fed. Cir. 2015) (emphasizing the Board's obligation to (1) evaluate a district court's claim construction for terms at issue, and (2) determine whether that construction is consistent with the term's broadest reasonable interpretation).

Claim 1 further recites that the multi-vehicle compatible controller can communicate with at least one vehicle device using at least one corresponding vehicle device code from among plural device codes for different vehicles. The district court construed the term "device codes" as "signal from a vehicle device," Dist. Ct. Claim Construction Order at 17, 25—a construction that is likewise consistent with its broadest reasonable interpretation. Although the court did not construe the term "different vehicles," the '278 patent in column 22, lines 3 to 7 incorporates by reference a related patent, namely U.S. Patent No. 5,719,551 ("the '551 patent"), which explains that "the term different vehicles may include vehicles from different manufacturers, different models, or even different trim levels of the same make or model." '551 patent, col. 6, ll. 38–42. *Accord* Reply Br. 8 (acknowledging this explanation).

The term "trim level" in a vehicular context refers to a version of a vehicle model that comes equipped with a set combination of features. *See*

What is a Vehicle Trim Level?, THE NEWSWHEEL, http://thenewswheel.com/what-is-a-vehicle-trim-level (Oct. 27, 2017) ("Newswheel"). In defining "trim level," this article explains that although trim packages previously were typically purely aesthetic and only added non-functional touches like chrome accents and upholstery stitching, many automakers today include sets of higher-technology features and/or performance upgrades in trim packages, resulting in offering as many as 6–10 different trim levels for a given vehicle model. *Id.*

Although the Examiner construes the recited term "different vehicles" to include vehicles that are the same make and model but with different trims consistent with the '551 patent, the Examiner nonetheless includes vehicles whose *electronics are not different* as "different vehicles." *See* Ans. 4.

We find this construction problematic on this record. To be sure, Newswheel indicates that differences among trim packages were formerly purely aesthetic and non-functional, thus suggesting that the electronics in these vehicles in these different trim packages would be the same despite the vehicles' aesthetic differences.

But as Appellant indicates (Reply Br. 6–9), vehicles with identical electronics would use the same vehicle codes and, therefore, their inclusion runs counter to the functionality of the recited *multi-vehicle compatible* controller that can communicate with a vehicle device using at least one corresponding vehicle device code *from among plural codes for different vehicles*. Indeed, this compatibility with different vehicles and their different codes is a fundamental aspect of the claimed invention that solves a

longstanding problem in the art as Appellant indicates. *See* App. Br. 32 (noting that the lack of vehicle code compatibility among different vehicles for vehicle tracking units is the problem addressed by the '278 patent). To the extent that the Examiner construes the different vehicles in claim 1 to include those with the same vehicle codes, we find such a construction unreasonable when interpreted in light of the Specification.

In reaching this conclusion, we emphasize that the broadest reasonable interpretation in light of the Specification is not whether the Specification precludes some broad reading of the claim term adopted by the Examiner. *See In re Smith Int'l, Inc.*, 871 F.3d 1375, 1382–83 (Fed. Cir. 2017). Nor is the broadest reasonable interpretation simply one that is not inconsistent with the Specification. *Id.* at 1383. Rather, it is an interpretation that corresponds with what and how the inventor describes his invention in the Specification, that is, an interpretation consistent with the Specification. *Id.* (citing *In re Suitco Surface*, 603 F.3d 1255, 1259–60 (Fed. Cir. 2010)).

Therefore, we find the Examiner's reliance on Chou for teaching the recited multi-vehicle compatible controller problematic on this record. In Chou, a vehicle's ECUs 103 (which the Examiner maps to the recited "vehicle device" (*see* Ans. 35)) report fault codes to fault detector 120B via vehicle bus 140 and vehicle bus adapter 120C, the latter translating messages received from the bus into the language of the fault detector and vice-versa. Chou, col. 4, ll. 20–28; Fig. 3. Although these fault codes' specifications and protocols depend on the manufacturer and vehicle model,

and the codes are listed in an SAE publication,[3] that does not mean that Chou's controller is *compatible with multiple vehicles*, where the controller can communicate with a vehicle device using at least one corresponding vehicle device code from among plural codes for different vehicles as claimed. Indeed, this very SAE publication acknowledges the lack of uniformity in these codes between manufacturers and, in some cases, within the same manufacturer across different product lines. *See* App. Br. 26–27, 32 (quoting a passage from page 39 of the SAE HS-3000 manual). *Accord* Declaration by Joseph C. McAlexander, III Under 37 C.F.R. § 1.132, dated June 12, 2017 ("2017 McAlexander Decl.") ¶ 13 (quoting this passage). *See also* Rule 132 Declaration by Michael J. Suman, dated July 5, 2016 ("Item 4) ("Suman Decl.") ¶¶ 11–12 (declaring that, at the time of his U.S. Patent 6,028,537 whose provisional application was filed June 14, 1996, vehicle device codes were (1) proprietary to different manufacturers, (2) not made freely available, and (3) difficult to obtain). *Accord* Rule 132 Declaration By Joseph C. McAlexander, III, dated July 6, 2016 ("Item 5") ("2016 McAlexander Decl.") ¶ 10 (corroborating this testimony).

At best, Chou's controller is compatible with *one* vehicle, namely the particular vehicle whose fault codes correspond to that particular vehicle for which the controller was designed. *Accord* App. Br. 32 (noting that Chou's ECUs use their own respective trouble codes that are different for different vehicles). Although Chou's remote service center can work with different

[3] Chou refers to this publication as "SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual." Chou, col. 4, ll. 33–36. For brevity and consistency, we refer to this manual consistent with Appellant's nomenclature, namely "SAE HS-3000." *See* App. Br. 25.

vehicle device codes using a server 201 and repository 203 in Figure 1 as Appellant acknowledges (App. Br. 37), Chou does not teach or suggest providing such a capability in a vehicle.

Nor do we find that Chou teaches or suggests the recited downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller. In the related litigation, the District Court did not construe the term "downloading interface," but did construe the term "enabling data" as data relating to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller—a construction that matches the terms in the claim. *See* Dist. Ct. Claim Construction Order at 20–23, 25.

According to the Specification, enabling data *may be, for example,* (1) the vehicle device code or codes; (2) an instruction to select a code or codes from among those already stored; or (3) the data or sequence to allow the controller 111 to generate the vehicle device code or codes. '278 patent, col. 24, ll. 9–13. Our emphasis on the permissive and exemplary language in this passage underscores that enabling data is not limited to these three alternatives.

But despite this non-limiting description, what is clear from Appellant's disclosure is that downloading enabling data via the recited interface enables the recited controller to use a *particular* vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the

controller to select or generate the code. *See* '278 patent, col. 24, l. 5 – col. 25, l. 28; Figs. 10–13.

Turning to the rejection, the Examiner refers to, among other things, Chou's network interface 320 and external device in Figure 2, as well as network interface 107 and cell phone 102 in Figure 3, in connection with the recited downloading interface. *See* Ans. 5–6, 35–36.

As shown in Chou's Figures 2 and 3, Chou's network interface 320 communicates wirelessly with remote service center 200 whose diagnostic server 201 accesses vehicle-related data, including diagnostics and failure mode data. *See* Chou, col. 3, ll. 15–32; col. 5, ll. 33–39. In one aspect, the diagnostic server sends a health report to a vehicle's client computer device 101, where the report is based on trouble codes reported by the client. Chou, col. 6, ll. 1–14. If a fault or fault potential is identified, the server (1) informs the vehicle's client computer device via the data connection, and (2) compiles the relevant data and creates a case for an associated call center system 202 to handle. Chou, col. 6, ll. 15–19.

Chou's system can also provide vehicle health checkups upon driver request. *See* Chou, col. 8, l. 65 – col. 10, l. 11; Fig. 5. After the driver triggers a health checkup session, vehicle data, including trouble codes, are sent to the diagnostic server where this information is compared with that stored in a repository, and a corresponding report is prepared and sent back to the vehicle for display. Chou, col. 9, ll. 1–59; Fig. 5.

Although this functionality facilitates downloading vehicle-related data and is, therefore, a "downloading interface" at least in that sense, it nevertheless does not permit downloading the *particular enabling data*

recited in the claim. As noted previously, this enabling data enables the recited controller to use a *particular* vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code. *See* '278 patent, col. 24, l. 5 – col. 25, l. 28; Figs. 10–13. To the extent that the Examiner finds that the data contained in the report sent from Chou's diagnostic server to the vehicle somehow contains this particular enabling data, there is no evidence on this record to substantiate such a finding.

Therefore, we agree with Appellant that Chou does not teach or suggest the recited multi-vehicle compatible controller and downloading interface. Although this deficiency is dispositive regarding our reversing the Examiner's obviousness rejection, we add that Appellant's evidence of secondary considerations of non-obviousness, including licensing, commercial success, copying by others, customer need, and the limited value for accused products without the invention (App. Br. 38–54; Reply Br. 11; 2017 McAlexander Decl. ¶ 19), only further weighs in favor of Appellant.

Therefore, we are persuaded that the Examiner erred in rejecting (1) independent claim 1; (2) independent claim 18 which recites commensurate limitations; and (3) dependent claims 4–8, 11, 12, and 19–21 for similar reasons. Because this issue is dispositive regarding our reversing the Examiner's obviousness rejection of these claims, we need not address Appellants' other associated arguments including whether Chou teaches away from the claimed invention. *See* App. Br. 35–38.

THE ANTICIPATION REJECTION

Although Appellant's arguments regarding (1) the submitted evidence of secondary considerations of non-obviousness (App. Br. 38–54; Reply Br. 11), and (2) Chou teaching away from the claimed invention (App. Br. 35–38) are irrelevant to the Examiner's anticipation rejection over Chou (Ans. 30–42),[4] we nonetheless find that Chou does not necessarily disclose the recited multi-vehicle compatible controller and downloading interface expressly or inherently for the reasons previously discussed.

Therefore, we are persuaded that the Examiner erred in rejecting (1) independent claim 1; (2) independent claim 18 which recites commensurate limitations; and (3) dependent claims 4–8, 11, 12, and 19–21 for similar reasons.

THE OTHER OBVIOUSNESS REJECTIONS

Because the Examiner has not shown that the additional cited prior art cures Chou's above-noted deficiencies, we will not sustain the obviousness rejections of claims 2, 3, 9, 10, 13–17, and 22 (Ans. 42–50) for similar reasons.

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[4] *See, e.g.*, *Leggett & Platt, Inc. v. VUTEk, Inc.*, 537 F.3d 1349, 1356 (Fed. Cir. 2008) ("'[T]eaching away' is irrelevant to anticipation."); *see also Cohesive Technologies, Inc. v. Waters Corp.*, 543 F.3d 1351, 1364 (Fed. Cir. 2008) ("[O]bviousness requires analysis of secondary considerations of nonobviousness, while secondary considerations are not an element of a claim of anticipation.").

CONCLUSION

The Examiner erred in rejecting (1) claims 1, 4–8, 11, 12, and 18–21 under § 102, and (2) claims 1–22 under § 103.

DECISION

The Examiner's decision to reject claims 1–22 is reversed.

Requests for extensions of time in this *ex parte* reexamination proceeding are governed by 37 C.F.R. § 1.550(c). *See* 37 C.F.R. § 41.50(f).

REVERSED

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Electronic Acknowledgement Receipt

EFS ID:	44439199
Application Number:	90014675
International Application Number:	
Confirmation Number:	7247
Title of Invention:	VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS
First Named Inventor/Applicant Name:	8032278
Customer Number:	27975
Filer:	Jack G. Abid/Sheryl Scheibe
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Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		SLS58106CIP1REX5RFOA.pdf	700910 5fef664898d54017ff0acd554f01bf333c2d4481	yes	41

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Response After Final Action	1	1
	Claims	2	7
	Applicant Arguments/Remarks Made in an Amendment	8	41

Warnings:					
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2	Affidavit-traversing rejectns or objectns rule 132	SLS58106CIP1REX5EX7.pdf	77937 ade7319d8dfda784f682607ad2ead56571e79b0b	no	7
Warnings:					
Information:					
3	Miscellaneous Incoming Letter	SLS58106CIP1REX5EX8.pdf	457359 2fde191a4ae013413ff70be426ac73b7164cd053	no	17
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Reexamination	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90/014,675	8032278
	Certificate Date	Certificate Number

Requester Correspondence Address: ☐ **Patent Owner** ☑ **Third Party**

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LITIGATION REVIEW ☑	lsw (examiner initials)	18 February 2021 (date)
Case Name		Director Initials
Omega Patents, LLC v. Enfora, Inc, 1:17cv2769 (closed)		
Omega Patents, LLC v. CalAmp Corp., 6:13cv1950 (closed)		

COPENDING OFFICE PROCEEDINGS	
TYPE OF PROCEEDING	**NUMBER**
Ex Parte Reexamination	90/014,419

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WASSUM, LUKE S

ART UNIT	PAPER NUMBER
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EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. *90/014,675* .

PATENT UNDER REEXAMINATION *8032278* .

ART UNIT *3992* .

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Ex Parte Reexamination

A request for *Ex Parte* Reexamination of claims 1-22 of United States Patent Number 8,032,278 ("the '278 patent") was filed 16 February 2021 ("the Request"). The '278 patent issued to **Kenneth E. Flick** on 4 October 2011, from application number 11/773,272 ("the '272 application"), filed 3 July 2007.

The Office mailed a Decision granting reexamination of claims 1-22 on 25 March 2021.

Claims 1-22 are subject to reexamination.

Related Proceedings

The application which issued as the '278 patent was application no. 11/773,272 ("the '272 application"), filed 3 July 2007.

The '278 patent was the subject of four previous *Ex Parte* Reexamination proceedings; 90/013,587, filed 14 September 2014 ("**First Reexamination**"); 90/013,851, filed 28 October 2016 ("**Second Reexamination**"); 90/014,309, filed 24 May 2019 ("**Third Reexamination**"); and 90/014,419, filed 11 December 2019 ("**Fourth Reexamination**").

In the Fourth Reexamination, an Order denying the request was mailed on 27 January 2020. Third Party Requester Innova Electronics Corporation filed a petition to

review the examiner's decision to deny reexamination on 25 February 2020. There has been no decision on the petition.

Claim Interpretation

During reexamination, claims are given the broadest reasonable interpretation consistent with the specification and limitations in the specification are not read into the claims (*In re Yamamoto*, 740 F.2d 1569, 222 USPQ 934 (Fed. Cir. 1984)).

Upon review of the original specification and prosecution history, the examiner has found no instance of lexicographic definitions, either express or implied, that are inconsistent with the ordinary and customary meaning of the respective terms. Therefore, for the purposes of claim interpretation, the examiner concludes that there are no claim terms for which Patent Owner is acting as their own lexicographer. See MPEP § 2111.01.IV.

The Office notes that there were several claim terms construed by the Patent Trial and Appeal Board (PTAB) in a decision[1] on appeal in the Second Reexamination. In the Decision, the PTAB also considered the construction of claim terms ordered in related

[1] Reexamination Proceeding 90/013,851, Decision on Appeal, 13 November 2018.

District Court litigation[2] involving several patents by inventor Kenneth E. Flick, including the '278 patent.

The construed claim terms are as follows:

Multi-Vehicle Compatible Controller, construed as "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle."

Different Vehicles, construed as "vehicles from different manufacturers, different models, or different trim levels of the same make or model, but having different electronics."

Enabling Data, construed as "data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller, and which enables the controller to use a *particular* vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code."

The Court's construction of these claim terms is consistent with the broadest reasonable interpretation and is adopted for the purposes of the instant reexamination proceeding.

[2] *Omega Patents, LLC v. CalAmp Corp.*, No. 6:13-cv-1950-Orl-40DAB (M.D. Fla.), Claim Construction Order, 20 February 2015.

The Office also notes that the PTAB construed the claimed Vehicle Device Codes as "signal from a vehicle device". However, in light of the disclosure at col. 23, line 67 through col. 24, line 3, that "[t]he corresponding vehicle [device] code may be for reading from the vehicle device **121**. Similarly, the corresponding vehicle [device] code may be additionally or alternatively for writing to the vehicle device **121**", for the purposes of the instant reexamination proceeding, the term Vehicle Device Codes will be construed as "signal *to or* from a vehicle device."

Priority

The '278 patent is a continuation-in-part of application 11/076,259, filed 9 March 2005, now U.S. Patent 7,720,597, which is a continuation of application 10/383,496, filed 7 March 2003, now U.S. Patent 7,149,623, which is a continuation of application 09/859,972 ("'**972 application**"), filed 17 May 2001, now U.S. Patent 6,606,561.

The '278 patent also claimed priority under 35 U.S.C. § 119(e) to the following provisional applications:

60/264,811, filed 29 January 2001;

60/258,005, filed 22 December 2000;

60/251,552, filed 6 December 2000;

60/252,125, filed 20 November 2000;

60/246,463[3], filed 7 November 2000;

60/236,890, filed 29 September 2000;

60/222,777, filed 3 August 2000; and

60/205,178, filed 17 May 2000.

As a continuation-in-part, the '278 patent is entitled to a priority date earlier than the actual filing date of the '272 application only for those claims that are fully supported by the earlier cited applications.

The Office notes that each of the independent claims of the '278 patent includes several features that were not disclosed in the earlier cited applications, including the fact that the tracking unit and its components are *multi-vehicle compatible*, that the vehicle includes a *vehicle data bus* that extends throughout the vehicle to facilitate communication between the controller and *at least one vehicle device* using at least one corresponding *vehicle device code*, and that the tracking unit includes *a downloading interface* for permitting *downloading of enabling data* related to the at least one corresponding vehicle device code.

[3] The Office notes that the serial number of this provisional application contains a typographical error; the provisional application presumably intended in the priority claim was actually 60/246,436.

Since each of the independent claims of the '278 patent includes subject matter not supported by its parent application, the patent is entitled only to a priority date of 3 July 2007, the actual application date of the '272 application.

The Claimed Invention

Independent Claim 1 is directed to a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit may comprise a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller may be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The multi-vehicle compatible tracking unit may comprise a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

Independent Claims 13 and 18 are directed to multivehicle compatible tracking units similar to that of Claim 1, but further recite the downloading interface comprising a connector for temporary connection to a downloading device and a wireless receiver for temporary connection to a downloading device, respectively.

Prior Art Cited in the Request

The following reference was cited by the third party Requester in the Request for *Ex Parte* Reexamination:

U.S. Patent 6,611,740 to Lowrey et al. ("**Lowrey**")

U.S. Patent 6,636,790 to Lightner et al. ("**Lightner**").

Patent Owner's Response

A response to the non-final Office action ("**Response**") was filed by Patent Owner on 23 August 2021.

The response included remarks, was well as a § 1.132 Declaration by Joseph C. Alexander, III ("the **Alexander Declaration**"), and a number of supporting exhibits. The claims have not been amended.

Response to Arguments

Patent Owner has presented a number of arguments with respect to the rejected claims. These arguments are addressed in turn below.

Related Litigation

At section I.A (**Response**, pages 8-10), Patent Owner reviews the history of past litigation involving the '278 patent. There remarks are noted by the Office.

Related Reexaminations

At section I.B (**Response**, pages 10-12), Patent Owner cites past reexamination proceedings in the Office involving the '278 patent and other patents assigned to Omega Patents, LLC. These remarks are noted by the Office.

Patent Owner also argues that the past reexamination filings are duplicative and harassing. However, such issues are addressed through the requirement that any subsequent request for reexamination raise a substantial *new* question of patentability ("SNQ") that is different than those raised in any previous reexamination request. In this case, such an SNQ was raised by the request, by virtue of (at least) the presentation of new, relevant, and non-cumulative prior art that was not previously before the Office with respect to the '278 patent.

Arguments to the contrary are properly addressed through the filing of a petition under 35 U.S.C. § 1.182 as part of the Patent Owner's statement. However, no such statement or petition has been filed in the instant proceeding. See MPEP § 2240.II.

Misleading Information

At section I.C (**Response**, pages 12-14), Patent Owner argues that Requester misleadingly represented to the Office that the **Lowrey** reference was "recently identified."

However, in considering a request for reexamination, the only consideration is whether the art presented raises an SNQ with respect to the requested claims. As discussed above, the **Lowrey** reference was not previously before the Office with respect to the '278 patent, and was non-cumulative to the art presented in previous reexamination requests. As such, it raised an SNQ with respect to the requested claims. See Order Granting Request for *Ex Parte* Reexamination, mailed 25 March 2021.

Whether or not the reference was 'recently identified' by Requester is immaterial to the Office's determination of whether it raises an SNQ with respect to the requested claims.

Patent Owner further requests confirmation of the claims in view of the 'serial harassment' made evident by the alleged 'misleading information'. As discussed

above, however, this issue is properly addressed through the filing of a petition under 35 U.S.C. § 1.182 as part of the Patent Owner's statement. See MPEP § 2240.II.

Grant of Reexamination

At section I.D (**Response**, page 14), Patent Owner argues that the reexamination should not have been ordered in view of requester's 'serial harassment' of Patent Owner.

However, the Office again notes that this issue is properly addressed through the filing of a petition under 35 U.S.C. § 1.182 as part of the Patent Owner's statement. See MPEP § 2240.II.

Lowrey and **Lightner**

At section III.B (**Response**, pages 16-21), Patent Owner argues that the prior art of record fails to disclose or suggest the claimed invention.

Specifically, Patent Owner argues that the prior art fails to disclose or suggest the claimed feature of "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles."

The Office respectfully disagrees.

At col. 2, lines 2-3, **Lowrey** discloses that the in-vehicle wireless appliance **13** (i.e., the claimed multi-vehicle compatible controller) interfaces with other vehicle systems via the OBD-II connector, and furthermore that the OBD-II systems of the vehicle exchange data over a shared, standardized electronic buss which effectively functions as an on-board computer network in the vehicle, including many processors each of which transmits and receives data, col. 1, lines 14-22 et seq. These disclosures alone disclose the claimed "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device."

With respect to the claimed 'corresponding vehicle device code', **Lowrey** additionally discloses a data-collection schema which is essentially a map that describes the data that the wireless appliance collects from the vehicle's engine computer and its corresponding location in the computer's memory (col. 6, lines 54-62 et seq.), and that some of the data retrieved comprises diagnostic trouble codes [DTCs] that indicate a specific problem with the vehicle (col. 1, lines 31-36 and col. 1, line 63 through col. 2, line 14 et seq.).

The Office notes that consistent with the claim construction previously applied by the PTAB (as discussed above in the Claim Construction section), the claimed

"vehicle device code" is interpreted as "a signal to or from a vehicle device." The diagnostic data collected from the engine computer (i.e., signals from a vehicle device), as well as the queries defined by the data-collection schema that specify which diagnostic data is to be retrieved from the engine computer (i.e., signals to a vehicle device), are both consistent with the Office's interpretation of the claimed 'vehicle device codes' as 'a signal to or from a vehicle device'.

With respect to the claimed limitation that the vehicle device codes are "from among a plurality for different vehicles", **Lowrey** discloses that the schema, which defines the data to be collected from the vehicle's engine computer, is *specific to a given type of vehicle* and is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle, col. 6, lines 62-65 et seq.

Patent Owner also argues that the prior art of record fails to disclose or suggest the claimed "downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller."

The Office respectfully disagrees.

In the Abstract, **Lowrey** discloses a data-transmission component configured to transmit an outgoing data packet comprising the diagnostic data over a network and to receive over the same network an incoming data packet that modifies the communication software. The data-transmission component can download data packets that can be processed to extract a new data-collection schema which the wireless appliance uses to extract a revised set of data from the vehicle's engine computer, or to query a set of data that is relevant to a DTC that has been generated by the vehicle, col. 7, lines 14-43 et seq.

As above, the Office notes that the downloaded new data-collection schema, which is used to extract a revised set of data from the vehicle's engine computer, constitutes 'signals to or from a vehicle device' (i.e., vehicle device codes.)

Indeed, the use of vehicle device codes would be required in order for the wireless device to convey to the vehicle's engine computer the specific device(s) for which diagnostic data is being requested.

The Office has also considered the **McAlexander Declaration** with respect to the prior art rejections. However, the assertions made under items 14 through 22 are conclusory in nature and provide no evidence or rationale supporting such conclusions.

Specifically, items 14 through 22 provide only opinions regarding what one of ordinary skill in the art would understand as being taught (or not taught) by the prior art references. However, there is no elaboration as to why a PHOSITA would have interpreted the prior art in that way.

In this case, only the conclusions have been provided; no information with respect to the basis of said conclusions was included in the **McAlexander Declaration**. As such, the opinions provided are accorded little weight.

Secondary Considerations

At section III.B.1 (**Response**, pages 21-23), Patent Owner argues, supported by the **McAlexander Declaration,** that secondary considerations support their allegation of the non-obviousness of the claimed invention, specifically with respect to the claimed feature of multi-vehicle compatibility. Patent Owner in fact repeatedly characterizes the rejections as "combining a vehicle tracker prior art reference with a secondary reference in an attempt to provide the multi-vehicle compatibility." (Response, page 18, first paragraph.)

The Office notes, however, that **Lowrey** alone explicitly teaches a vehicle tracking unit with multi-vehicle compatibility.

Specifically, **Lowrey** discloses that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can be easily transferred from one vehicle to another (thus constituting the claimed multi-vehicle compatibility) at col. 4, lines 59-63. **Lightner**, meanwhile, is relied upon only to provide additional details regarding the vehicle-specific nature of the diagnostic vehicle data (i.e., vehicle device codes).

Licensing

At section III.B.2 (**Response**, pages 23-25), Patent Owner argues, supported by the **McAlexander Declaration** (items 24.a-c and e), that secondary considerations with respect to licensing support their allegation of the non-obviousness of the claimed invention.

The Office notes that to be given substantial weight in the determination of obviousness or nonobviousness, evidence of secondary considerations must be relevant to the subject matter as claimed, and therefore the examiner must determine whether there is a nexus between the merits of the claimed invention and the evidence of secondary considerations. *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 305 n.42, 227 USPQ 657, 673-674 n. 42 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986). The term "nexus" designates a factually and legally sufficient connection

between the objective evidence of nonobviousness and the claimed invention so that the evidence is of probative value in the determination of nonobviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 7 USPQ2d 1222 (Fed. Cir.), cert. denied, 488 U.S. 956 (1988).

In this case, upon consideration of Patent Owner arguments and the statements set forth in the **McAlexander Declaration**, it has been determined that there is no nexus between the merits of the claimed invention and the submitted evidence.

The Office notes that to be given substantial weight in the determination of obviousness or nonobviousness, evidence of secondary considerations must be relevant to the subject matter as claimed, and therefore the examiner must determine whether there is a nexus between the merits **of the claimed invention** and the evidence of secondary considerations.

Patent Owner argues that the claimed multi-vehicle compatibility was important for the overall licensing program. However, the Office notes that "Where the offered secondary consideration actually results from something other than what is both claimed and novel in the claim, there is no nexus to the merits of the claimed invention." *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011); see also *Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1369 (Fed. Cir. 2011) ("If commercial success is due to an element in the prior art, no nexus exists."); *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299,

1312 (2006) ("[I]f the feature that creates the commercial success was known in the prior art, the success is not pertinent."). In evaluating whether the requisite nexus exists, the identified objective indicia must be directed to what was not known in the prior art, including patents and publications, which may well be the novel combination or arrangement of known individual elements. See *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418–19 (2007); *Veritas Techs. LLC v. Veeam Software Corp.*, 835 F.3d 1406, 1414-15 (Fed. Cir. 2016).

In this case, as noted above, **Lowrey** alone discloses that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can be easily transferred from one vehicle to another (thus constituting the claimed multi-vehicle compatibility) at col. 4, lines 59-63.

It is further noted that the fact that a jury and/or court considered 'secondary considerations' relevant to a finding of non-obviousness during previous litigation involving the '278 patent and two other patents is accorded little weight. The jury/court made their determination based upon evidence, including depositions and witness testimony, but that evidence, depositions, and witness testimony is not of record in the instant reexamination proceeding such that the Office can make its own independent analysis and determination.

Commercial Success

At section III.B.3 (**Response**, pages 25-27), Patent Owner argues, supported by the **McAlexander Declaration** (items 24.c-f), that secondary considerations with respect to commercial success support their allegation of the non-obviousness of the claimed invention.

The examiner notes that objective evidence of nonobviousness including commercial success must be commensurate in scope with the claims. *In re Tiffin*, 448 F.2d 791, 171 USPQ 294 (CCPA 1971) (evidence showing commercial success of thermoplastic foam "cups" used in vending machines was not commensurate in scope with claims directed to thermoplastic foam "containers" broadly). In order to be commensurate in scope with the claims, the commercial success must be due to claimed features, and not due to unclaimed features. *Joy Technologies Inc. v. Manbeck,* 751 F. Supp. 225, 229, 17 USPQ2d 1257, 1260 (D.D.C. 1990), aff'd, 959 F.2d 226, 228, 22 USPQ2d 1153, 1156 (Fed. Cir. 1992) (Features responsible for commercial success were recited only in allowed dependent claims, and therefore the evidence of commercial success was not commensurate in scope with the broad claims at issue.).

An affidavit or declaration attributing commercial success to a product or process "constructed according to the disclosure and claims of [the] patent application" or other equivalent language does not establish a nexus between the claimed invention

and the commercial success because there is no evidence that the product or process which has been sold corresponds to the claimed invention, or that whatever commercial success may have occurred is attributable to the product or process defined by the claims. *Ex parte Standish*, 10 USPQ2d 1454, 1458 (Bd. Pat. App. & Inter. 1988).

In this case, the **McAlexander Declaration** states that "CalAmp telemetry devices "have enjoyed significant commercial success". Although the commercial success is directed to "the accused products", the examiner notes that a nexus has not been established. That is, the subjected statements and evidence does not establish a nexus between the claimed invention and the commercial success because there is no evidence that the product which has been sold corresponds to the claimed invention, or that whatever commercial success may have occurred is attributable to the product defined by the claims.

Patent Owner again argues that the claimed multi-vehicle compatibility was important for the overall licensing program. However, the Office notes that "Where the offered secondary consideration actually results from something other than what is both claimed and novel in the claim, there is no nexus to the merits of the claimed invention." *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011); see also *Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1369 (Fed. Cir. 2011) ("If commercial success is due to an element in the prior art, no nexus exists."); *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299,

1312 (2006) ("[I]f the feature that creates the commercial success was known in the prior art, the success is not pertinent."). In evaluating whether the requisite nexus exists, the identified objective indicia must be directed to what was not known in the prior art, including patents and publications, which may well be the novel combination or arrangement of known individual elements. See *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418–19 (2007); *Veritas Techs. LLC v. Veeam Software Corp.*, 835 F.3d 1406, 1414-15 (Fed. Cir. 2016).

In this case, as noted above, **Lowrey** alone discloses that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can be easily transferred from one vehicle to another (thus constituting the claimed multi-vehicle compatibility) at col. 4, lines 59-63.

It is further noted that the fact that a jury and/or court considered 'secondary considerations' relevant to a finding of non-obviousness during previous litigation involving the '278 patent and two other patents is accorded little weight. The jury/court made their determination based upon evidence, including depositions and witness testimony, but that evidence, depositions, and witness testimony is not of record in the instant reexamination proceeding such that the Office can make its own independent analysis and determination.

Copying by Others

At section III.B.4 (**Response**, page 27), Patent Owner argues, supported by the **McAlexander Declaration** (item 24.g), that secondary considerations with respect to copying by others support their allegation of the non-obviousness of the claimed invention.

The examiner notes that more than the mere fact of copying is necessary to make that action significant because copying may be attributable to other factors such as a lack of concern for patent property or contempt for the patentee's ability to enforce the patent. *Cable Electric Products, Inc. v. Genmark, Inc.*, 770 F.2d 1015, 226 USPQ 881 (Fed. Cir. 1985). Evidence of copying was persuasive of nonobviousness when an alleged infringer tried for a substantial length of time to design a product or process similar to the claimed invention, but failed and then copied the claimed invention instead. *Dow Chem. Co. v. American Cyanamid Co.*, 816 F.2d 617, 2 USPQ2d 1350 (Fed. Cir. 1987). Alleged copying is not persuasive of nonobviousness when the copy is not identical to the claimed product, and the other manufacturer had not expended great effort to develop its own solution. *Pentec, Inc. v. Graphic Controls Corp.*, 776 F.2d 309, 227 USPQ 766 (Fed. Cir. 1985). See also *Vandenberg v. Dairy Equipment Co.*, 740 F.2d 1560, 1568, 224 USPQ 195, 199 (Fed. Cir. 1984) (evidence of copying not found persuasive of nonobviousness) and *Panduit Corp. v. Dennison Manufacturing Co.*, 774 F.2d 1082, 1098-

99, 227 USPQ 337, 348, 349 (Fed. Cir. 1985), vacated on other grounds, 475 U.S. 809, 229 USPQ 478 (1986), on remand, 810 F.2d 1561, 1 USPQ2d 1593 (Fed. Cir. 1987) (evidence of copying found persuasive of nonobviousness where admitted infringer failed to satisfactorily produce a solution after 10 years of effort and expense).

The examiner notes that the statements by the Patent Owner and **McAlexander Declaration** do not provide sufficient evidence with respect to which products copied the claimed invention as well as providing evidence that the copied invention relates to the instant patent. The declaration states that during previous litigation involving the '278 patent and two other patents, that the 'claimed invention' was copied, without providing evidence specific to the claimed invention of the '278 patent and a specific infringing product which corresponds to said claimed invention of the '278 patent. These statements are insufficient to show whether the claimed invention was copied.

The Office again notes that the fact that a jury and/or court considered 'secondary considerations' relevant to a finding of non-obviousness during previous litigation involving the '278 patent and two other patents is accorded little weight. The jury/court made their determination based upon evidence, including depositions and witness testimony, but that evidence, depositions, and witness testimony is not of record in the instant reexamination proceeding such that the Office can make its own independent analysis and determination.

Customer Need

At section III.B.5 (**Response**, pages 28-31), Patent Owner argues, supported by the **McAlexander Declaration** (items 24.h-i), that secondary considerations with respect to customer need support their allegation of the non-obviousness of the claimed invention. It is noted that the Declaration makes reference to depositions that are not of record in the instant reexamination proceeding.

The **McAlexander Declaration** states that the accused products in the Calamp litigation were developed because of "customer need."

The Office notes that establishing long-felt need requires objective evidence that an art recognized problem existed in the art for a long period of time without solution. The relevance of long-felt need and the failure of others to the issue of obviousness depends on several factors. First, the need must have been a persistent one that was recognized by those of ordinary skill in the art. *In re Gershon*, 372 F.2d 535, 539, 152 USPQ 602, 605 (CCPA 1967) ("Since the alleged problem in this case was first recognized by appellants, and others apparently have not yet become aware of its existence, it goes without saying that there could not possibly be any evidence of either

a long felt need in the . . . art for a solution to a problem of dubious existence or failure of others skilled in the art who unsuccessfully attempted to solve a problem of which they were not aware."); Orthopedic Equipment Co., Inc. v. All Orthopedic Appliances, Inc., 707 F.2d 1376, 217 USPQ 1281 (Fed. Cir. 1983) (Although the claimed invention achieved the desirable result of reducing inventories, there was no evidence of any prior unsuccessful attempts to do so.).

Second, the long-felt need must not have been satisfied by another before the invention by applicant. Newell Companies v. Kenney Mfg. Co., 864 F.2d 757, 768, 9 USPQ2d 1417, 1426 (Fed. Cir. 1988) (Although at one time there was a long-felt need for a "do-it-yourself" window shade material which was adjustable without the use of tools, a prior art product fulfilled the need by using a scored plastic material which could be torn. "[O]nce another supplied the key element, there was no long-felt need or, indeed, a problem to be solved".)

In this case, the Patent Owner argues that the long-felt need involved a product having a simple installation that did not require the splicing of wires. However, **Lowrey** alone provided just such a product, years prior to the 2007 priority date of the '278 patent, by virtue of the product's interface to the OBD-II connector.

Limited Value

At section III.B.6 (**Response**, pages 31-33), Patent Owner argues, supported by the **McAlexander Declaration** (item 24.j), that secondary considerations with respect to limited value support their allegation of the non-obviousness of the claimed invention.

The **McAlexander Declaration** states that the Accused Products would have "limited value" if it were not for multi-vehicle compatibility.

The Office notes that the statements by Patent Owner and **McAlexander Declaration** do not provide sufficient evidence that the "accused products" would have limited value without the claimed multi-vehicle compatibility. The declaration merely provided a statement without showing evidence as to whether the products would have limited value with respect to claimed limitations.

It is again noted by the Office that **Lowrey** alone explicitly teaches a vehicle tracking unit with multi-vehicle compatibility.

Specifically, **Lowrey** discloses that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can be easily transferred from one vehicle to another (thus constituting the claimed multi-vehicle compatibility) at col. 4, lines 59-63.

Summary of the Grounds of Rejection

Ground 1: Claims 1, 4-11, and 18-22 are unpatentable under 35 U.S.C. § 103(a) as obvious over **Lowrey** in view of **Lightner**.

Relevant Statutes

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim Rejections

Ground 1: **Lowrey** and **Lightner**

Claims 1, 4-11, and 18-22 are unpatentable under 35 U.S.C. § 103(a) as obvious over **Lowrey** in view of **Lightner**.

Claim 1

Regarding claim 1, **Lowrey** teaches a **multi-vehicle compatible tracking unit for a vehicle** (see disclosure of in-vehicle wireless appliance **13** which can include hardware

for global-positioning system (GPS) so that the location of the vehicle can be monitored [i.e., a *tracking* unit], col. 10, lines 56-61 and drawing Figure 1; see also disclosure that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can easily be transferred from one vehicle to another [i.e., multi-vehicle compatible], col. 4, lines 59-63), comprising **a vehicle data bus extending throughout the vehicle** (see disclosure of a shared, standardized electronic buss over which most ECUs transmit status and diagnostic information, col. 1, lines 14-25 et seq.), the multi-vehicle compatible tracking unit comprising:

a) **a vehicle position determining device** (see disclosure that hardware for global-positioning system (GPS) may be included so that the location of the vehicle can be monitored along with its data, col. 10, lines 56-61 et seq.);

b) **a wireless communications device** (see disclosure of a data-transmitting component [e.g., a radio of cellular modem] that sends out the data packet over an existing wireless network, col. 2, lines 55-59; see also disclosure that the data transmission component that sends formatted data through cable **17** to antenna **14** which then radiates the data packet over airlink **9** to a base station **11** included in a wireless network **4**, col. 6, lines 14-26 et seq. and drawing Figure 1);

c) **a multi-vehicle compatible controller** (see disclosure of the data-collection component of in-vehicle wireless appliance **13**, and that said data-collection component includes a microcontroller, col, 6, lines 55-61; see also disclosure that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can easily be transferred from one vehicle to another [i.e., multi-vehicle compatible], col. 4, lines 59-63) **for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information** (see disclosure that the data-collection component collects diagnostic data from the engine computer **15**, formats the data in a packet and passes the packet to the data-transmission component, col. 6, lines 8-22 et seq.; see also disclosure that hardware for global-positioning system (GPS) may be included so that the location of the vehicle can be monitored along with its data [i.e., vehicle location data is also collected by the data-collection component, formatted, and passed to the data-transmission component], col. 10, lines 56-61 et seq.);

d) **said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device** (see disclosure that the in-vehicle wireless appliance **13** interfaces with other

vehicle systems via the OBD-II connector, col. 2, lines 2-3; see also disclosure that OBD-II systems exchange data over a shared, standardized electronic buss which effectively functions as an on-board computer network in the vehicle, including many processors each of which transmits and receives data, col. 1, lines 14-22 et seq.; see also disclosure that the data-collection component collects vehicle data from engine computer **15** via cable **16** [i.e., part of the claimed vehicle data bus], col. 6, lines 8-22 et seq. and drawing Figure 1) **using at least one corresponding vehicle device code** (see disclosure of the use of diagnostic trouble codes [DTCs] that indicate a specific problem with the vehicle, col. 1, lines 31-36 and col. 1, line 63 through col. 2, line 14; see also disclosure of a data-collection schema, which is essentially a map that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory, col. 6, lines 54-62; see also disclosure that the appliance collects diagnostic data defined by the schema, formats the data in a data packet, and then sends an outgoing packet over the airlink to a wireless network, col. 6, line 65 through col. 7, line 4; the Office notes that the disclosed diagnostic data collected from engine computer **15** by wireless appliance **13**, as well as the queries defined by the data-collection schema

that specify which diagnostic data is to be retrieved from the engine computer, are both consistent with the Office's interpretation of the claimed 'vehicle device codes' as 'a signal to or from a vehicle device') **from among a plurality thereof for different vehicles** (see disclosure that the schema, defining the data to be collected from the vehicle's engine computer, is specific to a given type of vehicle and is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle, col. 6, lines 62-65 et seq.); and

e) **a downloading interface** (see disclosure of the data-transmission component configured to transmit an outgoing data packet comprising the diagnostic data over a network and to receive over the same network an incoming data packet that modifies the communication software, Abstract) **for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller** (see disclosure of the ability to download a data packet containing a new schema, col. 7, lines 14-26; see also disclosure that the host vehicle receives the packet and processes it to extract the new data-collection schema, which the wireless appliance uses to extract a revised set of data from the vehicle's engine computer, or to query a set of data that is relevant to a DTC that has

been generated by the vehicle, col. 7, lines 33-43 et seq.; the Office notes that the disclosed data packet containing a new schema is consistent with the Office's interpretation of the claimed 'enabling data' as including 'data that otherwise enables the controller to select or generate the code', since said new schema, which includes the data to collect and its location, enables the wireless appliance to collect that particular data, i.e., to use that particular vehicle device code from among plural such codes for different vehicles corresponding to different schemas).

To the extent that **Lowrey** does not explicitly teach additional details of how the diagnostic data is vehicle-specific, **Lightner** discloses these additional details at col. 6, lines 26-34:

> Depending on the make and model of the vehicle, the data packet can contain hundreds of datum that describe, e.g.: i) basic properties of the power train (e.g., emission levels, fuel-system status, engine temperature, speed and odometer readings, anti-lock brake status, RPMs, fuel and intake manifold pressure); and ii) manufacturer-specific information (e.g., status of the door locks, airbags, and entertainment center). In total, for most vehicles there are typically more than 300 datum that can be included in the data packet.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of **Lightner** into that of **Lowrey**, since they both relate to wireless in-vehicle appliances that utilize the vehicle's OBD-II systems to monitor diagnostic data from various on-board systems and to transmit such data over a wireless connection to a host computer system, such that vehicle health and performance can be remotely monitored. Furthermore, since the diagnostic data is produced by the OBD-II system, and both references disclose the use of an OBD-II system, any disclosure with respect to the diagnostic data generated by the disclosed vehicle tracking system would apply equally to both references.

Claim 4

Regarding claim 4, **Lowrey** additionally teaches the tracking unit of claim 1 wherein said downloading interface comprises **a wireless signal downloading interface** (see disclosure of the data-transmission component configured to transmit an outgoing data packet comprising the diagnostic data over a network and to receive over the same network an incoming data packet that modifies the communication software, Abstract; see also disclosure that the transmission occurs wirelessly via airlink 9, col. 1, line 60 through col. 2, line 42 et seq. and drawing Figure 1).

Claim 5

Regarding claim 5, **Lowrey** additionally teaches the tracking unit of claim 4 wherein said wireless signal downloading interface comprises **a wireless receiver** (see disclosure of the data-transmission component configured to transmit an outgoing data packet comprising the diagnostic data over a network and to receive over the same network an incoming data packet that modifies the communication software, Abstract) **for temporary connection to a downloading device** (see disclosure of host computer system **5** [i.e., downloading device] that can include multiple computers, software pieces, and other signal processing and switching equipment such as routers and digital signal processors, col. 6, lines 28-38, see also disclosure that the connection to the downloading device takes place at longer intervals specified in the data-collection schema, such as every 10 minutes [i.e., a temporary connection], col. 6, lines 18-22).

Claim 6

Regarding claim 6, **Lowrey** additionally teaches the tracking unit of claim 1 wherein **the corresponding at least one vehicle code is for reading from the at least one vehicle device** (see disclosure that the data-collection schema is essentially a map that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory, col. 6, lines 54-62

et seq.; see also disclosure that the appliance collects diagnostic data defined by the schema, col. 6, line 67 through col. 7, line 1; in other words, the data-collection schema defines the claimed at least one vehicle device code, in that the schema is used to generate queries to read data from a corresponding at least one vehicle device).

Claim 7

Regarding claim 7, **Lowrey** additionally teaches the tracking unit of claim 1 wherein **the corresponding at least one vehicle code is for writing to the at least one vehicle device** (see disclosure that a new schema can be transmitted to the wireless appliance to query a set of data that is relevant to a DTC registered by the vehicle, *or to 'clear' a DTC when it is deemed to no longer be problematic* [i.e., writing to a vehicle device], col. 7, lines 14-43).

To the extent that **Lowrey** does not explicitly disclose additional examples of at least one vehicle code for writing to the at least one vehicle device, **Lightner** further discloses such a feature (see disclosure that a data packet can be sent from the host computer system to the wireless communication system, which is processed by the microprocessor in the data collector/router to generate a signal that is sent to one of the

vehicle's microcontrollers for adjusting a setting in the particular microcontroller, col. 3, line 22 through col. 4, line 8 et seq.).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize at least one vehicle code for writing to the at least one vehicle device, since this would allow technicians to not only remotely diagnose problems in a vehicle based on downloaded diagnostic data, it would allow the technician to remotely take action to address said problem.

Claim 8

Regarding claim 8, **Lowrey** additionally teaches the tracking unit of claim 1 wherein said downloading interface is also for permitting **downloading of at least one programming instruction for said multi-vehicle compatible controller** (see disclosure of the ability to download a data packet containing a new schema, col. 7, lines 14-26; see also disclosure that the host vehicle receives the packet and processes it to extract the new data-collection schema, which the wireless appliance uses to extract a revised set of data from the vehicle's engine computer, to send out data at a revised frequency, or to query a set of data that is relevant to a DTC that has been generated by the vehicle, col.

7, lines 33-43 et seq.; see also disclosure that the wireless appliance can receive over a network an incoming data packet that modifies the communication software, Abstract).

Claim 9

Regarding claim 9, **Lowrey** additionally teaches the tracking unit of claim 1 further comprising **a remote transmitter** (see disclosure the system can include a hand-held device, e.g., a cellular telephone or portable digital assistant, that connects to the host computer system through the Internet, col. 3, lines 56-63) and wherein **said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter** (see disclosure that the disclosed systems can be used for, *inter alia*, remote control of the vehicle [e.g., in response to theft or traffic/registration violations], col. 11, lines 8-13).

Claim 10

Regarding claim 10, **Lowrey** additionally teaches the tracking unit of claim 9 wherein the at least one vehicle remote control function comprises at least one of **a vehicle security function**, a remote keyless entry function, and a remote engine starting function (see disclosure that the disclosed systems can be used for, *inter alia*, remote

control of the vehicle [e.g., in response to theft or traffic/registration violations], col. 11, lines 8-13).

Claim 11

Regarding claim 11, **Lowrey** additionally teaches the tracking unit of claim 1 wherein the wireless position determining device comprises **a Global Positioning System (GPS) receiver** (see disclosure that hardware for global-positioning system (GPS) may be included so that the location of the vehicle can be monitored along with its data, col. 10, lines 56-61 et seq.).

Claim 18

Regarding claim 18, **Lowrey** teaches a **multi-vehicle compatible tracking unit for a vehicle** (see disclosure of in-vehicle wireless appliance **13** which can include hardware for global-positioning system (GPS) so that the location of the vehicle can be monitored [i.e., a *tracking* unit], col. 10, lines 56-61 and drawing Figure 1; see also disclosure that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can easily be transferred from one vehicle to another [i.e., multi-vehicle compatible], col. 4, lines 59-63), comprising **a vehicle data bus extending**

throughout the vehicle (see disclosure of a shared, standardized electronic buss over which most ECUs transmit status and diagnostic information, col. 1, lines 14-25 et seq.), the multi-vehicle compatible tracking unit comprising:

a) **a vehicle position determining device** (see disclosure that hardware for global-positioning system (GPS) may be included so that the location of the vehicle can be monitored along with its data, col. 10, lines 56-61 et seq.);

b) **a wireless communications device** (see disclosure of a data-transmitting component [e.g., a radio of cellular modem] that sends out the data packet over an existing wireless network, col. 2, lines 55-59; see also disclosure that the data transmission component that sends formatted data through cable **17** to antenna **14** which then radiates the data packet over airlink **9** to a base station **11** included in a wireless network **4**, col. 6, lines 14-26 et seq. and drawing Figure 1);

c) **a multi-vehicle compatible controller** (see disclosure of the data-collection component of in-vehicle wireless appliance **13**, and that said data-collection component includes a microcontroller, col, 6, lines 55-61; see also disclosure that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can easily be transferred from one vehicle to another [i.e., multi-vehicle compatible], col. 4, lines 59-63) **for cooperating**

with said vehicle position determining device and said wireless communications device to send vehicle position information (see disclosure that the data-collection component collects diagnostic data from the engine computer **15**, formats the data in a packet and passes the packet to the data-transmission component, col. 6, lines 8-22 et seq.; see also disclosure that hardware for global-positioning system (GPS) may be included so that the location of the vehicle can be monitored along with its data [i.e., vehicle location data is also collected by the data-collection component, formatted, and passed to the data-transmission component], col. 10, lines 56-61 et seq.);

d) **said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device** (see disclosure that the in-vehicle wireless appliance **13** interfaces with other vehicle systems via the OBD-II connector, col. 2, lines 2-3; see also disclosure that OBD-II systems exchange data over a shared, standardized electronic buss which effectively functions as an on-board computer network in the vehicle, including many processors each of which transmits and receives data, col. 1, lines 14-22 et seq.; see also disclosure that the data-collection component collects vehicle data from engine computer **15** via cable **16** [i.e.,

part of the claimed vehicle data bus], col. 6, lines 8-22 et seq. and drawing Figure 1) **using at least one corresponding vehicle device code** (see disclosure of the use of diagnostic trouble codes [DTCs] that indicate a specific problem with the vehicle, col. 1, lines 31-36 and col. 1, line 63 through col. 2, line 14; see also disclosure of a data-collection schema, which is essentially a map that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory, col. 6, lines 54-62; see also disclosure that the appliance collects diagnostic data defined by the schema, formats the data in a data packet, and then sends an outgoing packet over the airlink to a wireless network, col. 6, line 65 through col. 7, line 4; the Office notes that the disclosed diagnostic data collected from engine computer **15** by wireless appliance **13**, as well as the queries defined by the data-collection schema that specify which diagnostic data is to be retrieved from the engine computer, are both consistent with the Office's interpretation of the claimed 'vehicle device codes' as 'a signal to or from a vehicle device') **from among a plurality thereof for different vehicles** (see disclosure that the schema, defining the data to be collected from the vehicle's engine computer, is specific to a given type of vehicle and is typically loaded onto the

microcontroller before the wireless appliance is installed in the vehicle, col. 6, lines 62-65 et seq.); and

e) **a downloading interface** (see disclosure of the data-transmission component configured to transmit an outgoing data packet comprising the diagnostic data over a network and to receive over the same network an incoming data packet that modifies the communication software, Abstract) **for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller** (see disclosure of the ability to download a data packet containing a new schema, col. 7, lines 14-26; see also disclosure that the host vehicle receives the packet and processes it to extract the new data-collection schema, which the wireless appliance uses to extract a revised set of data from the vehicle's engine computer, or to query a set of data that is relevant to a DTC that has been generated by the vehicle, col. 7, lines 33-43 et seq.; the Office notes that the disclosed data packet containing a new schema is consistent with the Office's interpretation of the claimed 'enabling data' as including 'data that otherwise enables the controller to select or generate the code', since said new schema, which includes the data to collect and its location, enables the wireless appliance to collect that particular data, i.e., to use that particular

vehicle device code from among plural such codes for different vehicles corresponding to different schemas);

f) **said downloading interface comprising a wireless receiver for temporary connection to a downloading device** (see disclosure of the data-transmission component configured to transmit an outgoing data packet comprising the diagnostic data over a network and to receive over the same network an incoming data packet that modifies the communication software, Abstract; see also disclosure that the transmission occurs wirelessly via airlink 9, col. 1, line 60 through col. 2, line 42 et seq. and drawing Figure 1).

To the extent that **Lowrey** does not explicitly teach additional details of how the diagnostic data is vehicle-specific, **Lightner** discloses these additional details at col. 6, lines 26-34:

> Depending on the make and model of the vehicle, the data packet can contain hundreds of datum that describe, e.g.: i) basic properties of the power train (e.g., emission levels, fuel-system status, engine temperature, speed and odometer readings, anti-lock brake status, RPMs, fuel and intake manifold pressure); and ii) manufacturer-specific information (e.g., status of the door locks, airbags, and entertainment center). In total, for most vehicles there are typically more than 300 datum that can be included in the data packet.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of **Lightner** into that of **Lowrey**, since they both relate to wireless in-vehicle appliances that utilize the vehicle's OBD-II systems to monitor diagnostic data from various on-board systems and to transmit such data over a wireless connection to a host computer system, such that vehicle health and performance can be remotely monitored. Furthermore, since the diagnostic data is produced by the OBD-II system, and both references disclose the use of an OBD-II system, any disclosure with respect to the diagnostic data generated by the disclosed vehicle tracking system would apply equally to both references.

Claim 19

Regarding claim 19, **Lowrey** additionally teaches the tracking unit of claim 18 wherein **the corresponding at least one vehicle code is for reading from the at least one vehicle device** (see disclosure that the data-collection schema is essentially a map that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory, col. 6, lines 54-62 et seq.; see also disclosure that the appliance collects diagnostic data defined by the schema, col. 6, line 67 through col. 7, line 1; in other words, the data-collection schema

defines the claimed at least one vehicle device code, in that the schema is used to generate queries to read data from a corresponding at least one vehicle device).

Claim 20

Regarding claim 20, **Lowrey** additionally teaches the tracking unit of claim 18 wherein **the corresponding at least one vehicle code is for writing to the at least one vehicle device** (see disclosure that a new schema can be transmitted to the wireless appliance to query a set of data that is relevant to a DTC registered by the vehicle, *or to 'clear' a DTC when it is deemed to no longer be problematic* [i.e., writing to a vehicle device], col. 7, lines 14-43).

To the extent that **Lowrey** does not explicitly disclose additional examples of at least one vehicle code for writing to the at least one vehicle device, **Lightner** further discloses such a feature (see disclosure that a data packet can be sent from the host computer system to the wireless communication system, which is processed by the microprocessor in the data collector/router to generate a signal that is sent to one of the vehicle's microcontrollers for adjusting a setting in the particular microcontroller, col. 3, line 22 through col. 4, line 8 et seq.).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize at least one vehicle code for writing to the at least one vehicle device, since this would allow technicians to not only remotely diagnose problems in a vehicle based on downloaded diagnostic data, it would allow the technician to remotely take action to address said problem.

Claim 21

Regarding claim 21, **Lowrey** additionally teaches the tracking unit of claim 18 wherein said downloading interface is also for permitting **downloading of at least one programming instruction for said multi-vehicle compatible controller** (see disclosure of the ability to download a data packet containing a new schema, col. 7, lines 14-26; see also disclosure that the host vehicle receives the packet and processes it to extract the new data-collection schema, which the wireless appliance uses to extract a revised set of data from the vehicle's engine computer, to send out data at a revised frequency, or to query a set of data that is relevant to a DTC that has been generated by the vehicle, col. 7, lines 33-43 et seq.; see also disclosure that the wireless appliance can receive over a network an incoming data packet that modifies the communication software, Abstract).

Claim 22

Regarding claim 22, **Lowrey** additionally teaches the tracking unit of claim 18 further comprising **a remote transmitter** (see disclosure the system can include a hand-held device, e.g., a cellular telephone or portable digital assistant, that connects to the host computer system through the Internet, col. 3, lines 56-63) and wherein **said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter** (see disclosure that the disclosed systems can be used for, *inter alia*, remote control of the vehicle [e.g., in response to theft or traffic/registration violations], col. 11, lines 8-13).

Allowable Subject Matter

Claims 2, 3, and 12-17 are confirmed.

STATEMENT OF REASONS FOR PATENTABILITY AND/OR CONFIRMATION

The following is an examiner's statement of reasons for patentability and/or confirmation of the claims found patentable in this reexamination proceeding:

Regarding claims 2, 3, and 13-17, these claims recite a downloading interface comprising a wired downloading signal interface (claims 2 and 3) or a downloading interface comprising a connector for temporary connection to a downloading device (claims 13-17).

The prior art of record teaches a tracking unit for a vehicle comprising a wireless appliance that collects diagnostic data from the vehicle and transmits said diagnostic data to a host computer system via a wireless network/airlink. No wired downloading interface or download interface comprising a connector is disclosed.

Requester urges the Office to use a broad interpretation of the claimed 'connector' and 'wired interface', such that the prior art would read on the limitations. However, the Office concludes that even under the BRI standard, such an interpretation would be unreasonable. Under BRI, claims are interpreted in light of, and consistent with, the specification. Requester's proposed interpretation would be inconsistent with what is disclosed by the Patent Owner in the specification and drawings.

For instance, at col. 24, lines 39-47, the '278 patent discloses that the wired downloading interface may connect (via connectors **133a** and **133b)** directly to a downloading device, such as a laptop computer, via RS232/429 protocol, USB, FireWire, TCP/IP (Internet), or any other wired protocol, or alternately via a socket for accepting a

memory card or other data storage media capable of transferring data. The wired downloading interface is also illustrated in drawing Figure 13.

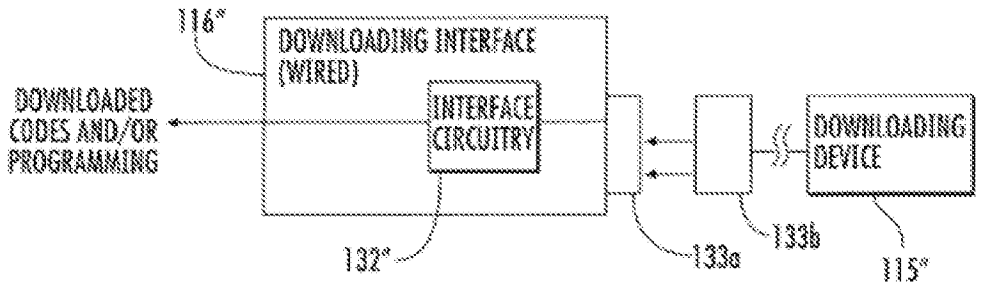


FIG. 13

With respect to claim 2, Requester proposes that a 'wired' signal downloading interface should be interpreted broadly enough to encompass **Lowrey's** cable **17** connecting wireless appliance **13** and antenna **14** (see Figure 1). However, the term 'interface' commonly refers to the boundary across which computer components or systems exchange data. While **Lowrey's** cable **17** interfaces wireless appliance **13** with antenna **14**, it does not interface with a downloading device, as is disclosed.

With respect to claim 13, interpreting the claimed connector as analogous to the transmit/receive functionality of **Lowrey's** data transmission component would be inconsistent with the '278 patent's disclosures regarding the connectors and the wired downloading interface.

Indeed, the disclosed characterization of **Lowrey's** in-vehicle appliance as 'wireless' makes clear that the interface between the appliance and the downloading

device is not a wired interface comprising a connector for connecting to a downloading device.

On this basis, claims 2, 3, and 13-17 are confirmed.

Regarding claim 12, there is no disclosure in the prior art of record that teaches or fairly suggests a housing that contains all of the claimed vehicle position determining device, wireless communications device, multi-vehicle compatible controller, and download interface.

On this basis, claim 12 is confirmed.

Any comments considered necessary by PATENT OWNER regarding the above statement must be submitted promptly to avoid processing delays. Such submission by the patent owner should be labeled: "Comments on Statement of Reasons for Patentability and/or Confirmation" and will be placed in the reexamination file.

Conclusion

THIS ACTION IS MADE FINAL.

A shortened statutory period for response to this action is set to expire 2 months from the mailing date of this action.

Extensions of time under 37 CFR 1.136(a) do not apply in reexamination proceedings. The provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Further, in 35 U.S.C. 305 and in 37 CFR 1.550(a), it is required that reexamination proceedings "will be conducted with special dispatch within the Office."

Extensions of time in reexamination proceedings are provided for in 37 CFR 1.550(c). A request for extension of time must specify the requested period of extension and it must be accompanied by the petition fee set forth in 37 CFR 1.17(g). Any request for an extension in a third party requested ex parte reexamination must be filed on or before the day on which action by the patent owner is due, and the mere filing of a request will not effect any extension of time. A request for an extension of time in a third party requested ex parte reexamination will be granted only for sufficient cause, and for a reasonable time specified. Any request for extension in a patent owner requested ex parte reexamination (including reexamination ordered under 35 U.S.C. 257) for up to two months from the time period set in the Office action must be filed no

later than two months from the expiration of the time period set in the Office action. A request for an extension in a patent owner requested ex parte reexamination for more than two months from the time period set in the Office action must be filed on or before the day on which action by the patent owner is due, and the mere filing of a request for an extension for more than two months will not effect the extension. The time for taking action in a patent owner requested ex parte reexamination will not be extended for more than two months from the time period set in the Office action in the absence of sufficient cause or for more than a reasonable time.

The filing of a timely first response to this final rejection will be construed as including a request to extend the shortened statutory period for an additional two months. In no event, however, will the statutory period for response expire later than SIX MONTHS from the mailing date of the final action. See MPEP § 2265.

The Patent Owner is reminded of the continuing responsibility under 37 CFR 1.565(a), to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving U.S. Patent No. 8,032,278 throughout the course of this reexamination proceeding. The third party requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

The Patent Owner is reminded that any proposed amendment to the specification and/or claims in the reexamination proceeding must comply with the provisions of 37 C.F.R. § 1.530(d)-(j), must be formally presented pursuant to 37 C.F.R. § 1.52(a) and (b), and must include any fees required by 37 C.F.R. § 1.20(c). See MPEP § 2250(IV) for examples to assist in the preparation of proper amendments in reexamination proceedings.

Any document filed by the Patent Owner must be served on the third party requester (or requesters in a merged proceeding) in the reexamination proceeding in the manner provided by 37 C.F.R. § 1.248. See 37 C.F.R. § 1.550(f) and MPEP § 2266.03.

All correspondence relating to this *ex parte* reexamination proceeding should be directed:

By EFS-Web: Registered Users may submit correspondence via EFS-Web, at https://efs.uspto.gov/efile/myportal/efs-registered.

By Mail to: Mail Stop *Ex Parte* Reexam
Central Reexamination Unit
Commissioner for Patents
United States Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

By FAX to: (571) 273-9900
Central Reexamination Unit

By hand: Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

EFS-Web offers the benefit of quick submission to the particular area of the Office that needs to act on the correspondence. Also, EFS-Web submissions are "soft-scanned" (i.e., electronically uploaded) directly into the official file for the reexamination proceeding, which offers parties the opportunity to review the content of their submission after the "soft scanning" process is complete.

Any inquiry concerning this communication should be directed to the Central Reexamination Unit at telephone number 571-272-7705.

/LUKE S WASSUM/
Primary Examiner, Art Unit 3992

Conferees:

/Stephen J. Ralis/
Primary Examiner, Art Unit 3992

Michael Fuelling /MF/
Supervisory Patent Examiner
Art Unit 3992

lsw
27 September 2021

Office Action in Ex Parte Reexamination	**Control No.** 90/014,675	**Patent Under Reexamination** 8032278	
	Examiner Luke S Wassum	**Art Unit** 3992	**AIA (FITF) Status** No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

a. ☑ Responsive to the communication(s) filed on 23 August 2021.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

b. ☑ This action is made FINAL.

c. ☐ A statement under 37 CFR 1.530 has not been received from the patent owner.

A shortened statutory period for response to this action is set to expire 2 month(s) from the mailing date of this letter. Failure to respond within the period for response will result in termination of the proceeding and issuance of an *ex parte* reexamination certificate in accordance with this action. 37 CFR 1.550(d). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).** If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☐ Notice of References Cited by Examiner, PTO-892.
2. ☐ Information Disclosure Statement, PTO/SB/08.
3. ☐ Interview Summary, PTO-474.
4. ☐ _____.

Part II SUMMARY OF ACTION

1a. ☑ Claims 1-22 are subject to reexamination.

1b. ☐ Claims _____ are not subject to reexamination.

2. ☐ Claims _____ have been canceled in the present reexamination proceeding.

3. ☑ Claims 2-3 and 12-17 are patentable and/or confirmed.

4. ☑ Claims 1,4-11 and 18-22 are rejected.

5. ☐ Claims _____ are objected to.

6. ☐ The drawings, filed on _____ are acceptable.

7. ☐ The proposed drawing correction, filed on _____ has been (7a) ☐ approved (7b) ☐ disapproved.

8. ☐ Acknowledgment is made of the priority claim under 35 U.S.C. 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of the certified copies have

1 ☐ been received.

2 ☐ not been received.

3 ☐ been filed in Application No. _____.

4 ☐ been filed in reexamination Control No. _____.

5 ☐ been received by the International Bureau in PCT application No. _____.

* See the attached detailed Office action for a list of the certified copies not received.

9. ☐ Since the proceeding appears to be in condition for issuance of an *ex parte* reexamination certificate except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte* Quayle, 1935 C.D. 11, 453 O.G. 213.

10. ☐ Other: _____

cc: Requester (if third party requester)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: **KENNETH E. FLICK**	
Request for Reexamination of **8,032,278**	
Control No. **90/014,675**	Attorney Docket No.: **(58106CIP1_REX5)**
Confirmation No. **7247**	
Filing Date: **2/16/2021**	Examiner: **L. WASSUM**
For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	Art Unit: **3992**

DECLARATION BY JOSEPH C. McALEXANDER, III UNDER 37 C.F.R. §1.132

I, the undersigned, hereby declare that:

I. Background

1. In formulating my opinions, I have relied upon my training, knowledge, and experience in the relevant art.

2. I am the Founder and President of McAlexander Sound, Inc., a professional engineering company, formerly the IP Director of CCI, a leader in the field of underwater wireless dive computers, Vice President of EPI Technologies, Inc., a systems and integrated circuit testing and reliability certification company, and a design and product manager at Texas Instruments. I have 49 years of experience in microcircuit and semiconductor technologies, including: device design, fabrication, assembly, testing, and marketing; control system

design and analysis; and quality, reliability, and defect/failure analysis.

3. I am a technical expert in the subject matter areas relevant to this *ex parte* reexamination, including design and testing of circuits and systems related to control systems employing wireless communication protocols and operation, information storage and transfer, user interfaces, information signal processing, applications and operating systems, and electronic device hardware and firmware design and control. From 2000-2003, I represented Toyoto as its 30(b)(6) witness and technical expert focused on vehicle alarm systems.

4. I am a Registered Professional Engineer (#79454) in the State of Texas and hold a Bachelor of Science degree in Electrical Engineering from North Carolina State University.

5. I am an inventor on 31 U.S. patents and a number of foreign patents, and I am familiar with the patent process. Five of the 31 patents (3 U.S. and 2 EP) are directed to MEMs technology for vehicle air bag sensor deployment. Three of the 31 patents (2 U.S. and 1 EP) are directed to mobile device tracking, such as is used to track vehicles.

6. I have been an expert witness and technical consultant for the past 32 years in IP matters related to product/process analysis and investigation.

7. I prepared expert reports and provided trial testimony in the case of Omega Patents, LLC (the '278 Patent Owner) v. CalAmp Corp. (the Requester supplies the defendant with the infringing product) that recently concluded in the Middle District of Florida (hereinafter referred to as the "CalAmp litigation"). In that CalAmp litigation, the '278 patent was asserted and determined by the jury to be not invalid, and to be infringed by CalAmp. (First Jury Verdict, Exhibit 2). In the Court's Final Order of April 5, 2017 (Exhibit 6), the Court confirmed that the asserted claims were not invalid (including the claims of the '278 patent).

8. I have been retained by the Patent Owner to provide technical consultation in the present reexamination of the '278 patent, particularly with respect to addressing rejections based upon Lowrey et al. and Lightener et al.

II. The '278 Patent and Current Office Action

9. I have extensively reviewed the '278 patent, along with its file history, and arguments advanced by CalAmp's trial expert, Mr. Andrews, as part of my work on behalf of the Patent Owner during the course of the CalAmp litigation. I have also reviewed the related litigation trial transcript and exhibits, and have reviewed the Court's Final Order of April 5, 2017, and Final Judgment of April 24, 2017.

10. I have reviewed the current Office Action dated June 21, 2021 for the fifth reexamination of the '278 patent. In that Office Action, the claims were rejected as follows:

Claims 1, 4-11 and 18-22 were rejected over Lowrey et al. in view of Lightener et al.

11. Representative Claim 1 of the '278 patent is directed to a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit comprises a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The multi-vehicle compatible tracking unit comprises a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller. Independent Claim 13 (patentability already confirmed) recites that the downloading interface includes a connector for temporary connection to a downloading device. Independent Claim 18 recites that the downloading interface includes a wireless receiver for temporary connection to a downloading device.

III. The Prior Art Analysis

12. I understand that Lowrey et al. discloses an internet-based vehicle-diagnostic system with a wireless appliance in electrical contact with an in-vehicle computer that

can report position date from a GPS device. The wireless appliance operates based upon a schema to select packets from the in-vehicle computer. These packets are transmitted to a host computer system for processing.

13. I understand that Lightener et al. discloses a wireless diagnostic system in communication with a plurality of vehicles. The wireless diagnostic system also comprises a host computer system, and data collectors in each of the vehicles. The data collector queries data from the ODB bus in the vehicle and sends the data over a wireless network. Data is retrieved from the vehicle periodically. Lightener et al. also notes: "[d]epending on the make and model of the vehicle, the data packet can contain hundreds of datum that describe, e.g.: i) basic properties of the power train (e.g., emission levels, fuel-System Status, engine temperature, Speed and odometer readings, anti-lock brake Status, RPMs, fuel and intake manifold pressure); and ii) manufacturer-specific information..." (Col. 6, lines 26-33).

14. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. fails to disclose the multi-vehicle compatible controller and downloading interface of the claimed vehicle tracking unit, as these claim recitations are interpreted by the Examiner.

15. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. fails to disclose

"said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles", as recited in independent Claim 1, for example.

16. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. discloses uploading schema to the wireless appliance to collect data packets from the vehicle.

17. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. discloses that the wireless appliance requires the technician to review processed results and upload new schema.

18. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. fails to disclose the multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles since it requires outside configuration to work with a vehicle.

19. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. fails to disclose the "downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device

code for use by said multi-vehicle compatible controller," as recited in independent Claim 1, for example.

20. It is my opinion that one of ordinary skill in the art would recognize that the claimed enabling data may comprise the vehicle device code or codes, an instruction to select a code or codes from among those already stored, or the data or sequence to allow the controller to generate the vehicle device code or codes.

21. It is my opinion that one of ordinary skill in the art would recognize that Lowrey et al. fails to disclose the claimed enabling data. Rather, the schema of Lowrey et al. fails to meet the bounds of this claimed feature.

22. It is my opinion that Lightener et al. fails to make up for the deficiencies of Lowrey et al.

IV. Evidence of Secondary Considerations

23. I submit that the person of ordinary skill in the art would not find it obvious to selectively modify Lowrey et al. Instead, it is my opinion that such a selective modification or combination would only be motivated by improper hindsight reconstruction – here about twenty years of hindsight.

24. I submit that merits of the claimed invention extend to providing multi-vehicle compatibility, as described above. Accordingly, there exists evidence of secondary considerations of non-obviousness including:

a. The First Jury Verdict, page 9, provides that others accepted licenses under the patents "because of the merits of the claimed invention."

b. I also understand that Omega has received in excess of $70 million in licensing revenue, much of it from the '278 patent and the other asserted patents in the CalAmp litigation. The Second Jury Verdict adds another $4.5M to this amount.

c. The '278 patent is one of three patents asserted in the related litigation providing features for multi-vehicle compatibility as is important for the overall licensing program of the Patent Owner.

d. The First Jury Verdict, page 9, includes the Jury's determination that the accused products were "commercially successful due to the merits of the claimed invention rather than due to advertising, promotion, salesmanship, or features of the product other than those found in the claim." And the Jury determined that the asserted claims of the '278 patent were infringed by the accused CalAmp devices. (Exhibits 2-3, First Jury Verdict, Pages 5-6, Second Jury Verdict, Pages 4-5).

e. CalAmp's employees testified in the related litigation that the multi-vehicle compatibility provides for simplified installation in a vehicle and avoids the need for separated stock keeping units (SKUs). Hall

deposition, 40:25 – 41:2; and Hergesheimer deposition, 43:3-16).

f. CalAmp telemetry devices have enjoyed significant commercial success having sold over 917,223 units of the accused products.

g. The First Jury Verdict, on page 9, includes a finding that others copied the claimed invention.

h. The Court determined that "CalAmp was well aware of Omega's patents since at least 2010. Rather than take a license, and choosing not to design around Omega's patents, CalAmp elected to sell infringing products and continues to do so to this day. CalAmp's motivation to engage in this behavior is obvious: their customers wanted this technology, and CalAmp wanted to provide it." (Exhibit 6, Final Order, pg. 19).

i. The Accused Products in the CalAmp litigation were developed because of "customer need." (Hall deposition, 40:20-41:12; Hergesheimer deposition, 40:23-41:3.).

j. Further, the infringing CalAmp Products would have "limited value" if it were not for the multi-vehicle compatibility. (Hergesheimer deposition, 46:25-47:169.).

25. I hereby declare further that all statements made herein are of my own knowledge and are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful and false statements may jeopardize the validity of the application or any patent issued thereon.

Joseph C. McAlexander, III

August 21, 2021
Date

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
ORLANDO DIVISION

OMEGA PATENTS, LLC,

Plaintiff,

v. Case No: 6:13-cv-1950-Orl-40DAB

CALAMP CORP.,

Defendant.
_____/

VERDICT FORM

1. Do you find Omega has proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any of the asserted claims of Omega's asserted Patents?

✓ Yes (for Omega) _____No (for CalAmp)

If your answer to Question 1 is "No," proceed to Question 3. If your answer to Question 1 is "Yes," for any claim(s) Omega has proven by a preponderance of the evidence that any of the accused CalAmp devices infringed, indicate a finding of infringement by marking "Yes" in the corresponding space provided in Questions 2.A through 2.D. below; for any claim(s) Omega has failed to prove by a preponderance of the evidence that any of the accused CalAmp devices infringed, indicate a finding of non-infringement by marking "No" in the corresponding space provided in Questions 2.A through 2.D. below.

2.A. U.S. Patent No. 6,346,876 B1 ("the '876 patent")

Has Omega proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any of the following claims of the '876 patent?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☑ Yes ☐ No	☑ Yes ~~☑ No~~	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 3	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 4	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 5	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 12	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 14	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 16	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No

2.B. U.S. Patent No. 6,756,885 B1 ("the '885 patent")

Has Omega proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any of the following claims of the '885 patent?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 2	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 3	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 12	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 14	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No

2.C. U.S. Patent No. 7,671,727 B2 ("the '727 patent")

Has Omega proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any of the following claims of the '727 patent?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 10	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 11	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No

2.D. U.S. Patent No. 8,032,278 B2 ("the '278 patent")

Has Omega proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any of the following claims of the '278 patent?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 2	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 3	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 4	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 5	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 6	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 8	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 11	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No

U.S. Patent No. 8,032,278 B2 ("the '278 patent") continued from previous page

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 12	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No		
Claim 13	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 14	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 16	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 18	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 19	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Claim 21	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No

After answering Questions 2.A. through 2.D., proceed to Question 3.

3. Has CalAmp proven by clear and convincing evidence that any claim of the asserted Patents is invalid?

_____ Yes (for CalAmp) ____✓____ No (for Omega)

4. If your answer to Question 3 is "No," proceed to Question 5. If your answer to Question 3 is "Yes," answer Question 4 below by indicating with an X any claim(s) you find invalid by clear and convincing evidence and indicate the reasons for invalidity, namely, identify which prior art references disclose the elements of the claim.

PATENT CLAIM	YES, INVALID	REFERENCES DISCLOSING THE ELEMENTS OF THE CLAIM
U.S. Patent No. 6,346,876		
Claim 1		
Claim 3		
Claim 4		
Claim 5		
Claim 12		
Claim 14		
Claim 16		
U.S. Patent No. 6,756,885		
Claim 1		
Claim 2		
Claim 3		
Claim 12		

PATENT CLAIM	YES, INVALID	REFERENCES DISCLOSING THE ELEMENTS OF THE CLAIM
U.S. Patent No. 6,756,885 (continued from previous page)		
Claim 14		
U.S. Patent No. 7,671,727		
Claim 1		
Claim 10		
Claim 11		
U.S. Patent No. 8,032,278		
Claim 1		
Claim 2		
Claim 3		
Claim 4		
Claim 5		
Claim 6		
Claim 8		
Claim 11		
Claim 12		
Claim 13		
Claim 14		
Claim 16		
Claim 18		
Claim 19		
Claim 21		

After answering Question 4, answer Question 5.

5. Which of the following factors that tend to indicate nonobviousness, if any, has been established by the evidence with respect to the claimed invention (write the word "yes" in the blank below to any question that you answer "yes" to):

YES	Were accused products covered by the claim commercially successful due to the merits of the claimed invention rather than due to advertising, promotion, salesmanship, or features of the product other than those found in the claim?
X	Was there long felt need for a solution to the problem facing the inventors, which was satisfied by the claimed invention?
X	Did others try, but fail, to solve the problem solved by the claimed invention?
YES	Did others copy the claimed invention?
X	Did the claimed invention achieve unexpectedly superior results over the closest prior art?
X	Did others in the field praise the claimed invention or express surprise at the making of the claimed invention?
YES	Did others accept licenses under patents because of the merits of the claimed invention?

If your answer to Question 1 is "Yes," answer Question 6.A. If your answer to Question 1 is "No," skip all remaining questions and proceed to sign and date this Verdict Form.

6.A. Has Omega proven by clear and convincing evidence that CalAmp acted despite an objectively high likelihood that its actions infringed a valid patent?

✓ Yes _____ No

If your answer to Question 6.A. is "Yes," proceed to Question 6.B. If your answer to Question 6.A. is "No," proceed to Question 7.

6.B. Has Omega proven by clear and convincing evidence that this objectively high likelihood of infringement was either known or so obvious that it should have been known to CalAmp?

✓ Yes _____ No

Proceed to Question 7.

7. What amount of damages, if any, do you find is adequate to compensate Omega for CalAmp's infringement of any claim found to be valid and not licensed?

$ 2,975,200

After answering Question 7, sign and date this Verdict Form.

SO SAY WE ALL THIS 24th DAY OF FEBRUARY, 2016.

JURY FOREPERSON

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
ORLANDO DIVISION

OMEGA PATENTS, LLC,

Plaintiff,

v. **Case No: 6:13-cv-1950-0rl-40DCI**

CALAMP CORP.,

Defendant.
_____/

VERDICT FORM

1. U.S. Patent No. 6,346,876 B1 ("the '876 patent")

1.A. It has been previously determined that CalAmp's customers infringe claims 1, 3, 4, 5, 14 and 16 of the '876 patent. Has Omega proven by a preponderance of the evidence that CalAmp induced its customers to infringe?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 3	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 4	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 5	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 14	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 16	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No

1.B. If you answered "Yes" to any part of Question 1.A. above, has Omega proven by a preponderance of the evidence that CalAmp's infringement was willful?

_____Yes _____ No

2. <u>U.S. Patent No. 6,756,885 B1 ("the '885 patent")</u>

2.A. Has Omega proven by a preponderance of the evidence that CalAmp's customers directly infringe any of the claims of the '885 patent by using any of the following accused products?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 2	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 3	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 12	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 14	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No

2.B. If your answer to any claim is "Yes," has Omega proven by a preponderance of the evidence that CalAmp induced its customers to infringe?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 2	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 3	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 12	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 14	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No

2.C. If you answered "Yes" to any part of Question 2.B. above, has Omega proven by a preponderance of the evidence that CalAmp's infringement was willful?

_____Yes _____ No

3. U.S. Patent No. 7,671,727 B2 ("the '727 patent")

3.A. It has previously been determined that CalAmp infringed Claim 1 of the '727 patent. Has Omega proven by a preponderance of the evidence that CalAmp's infringement was willful?

_____Yes ✓ No

4. U.S. Patent No. 8,032,278 B2 ("the '278 patent")

4.A. Has Omega proven by a preponderance of the evidence that CalAmp infringes any of the following claims of the '278 patent by making, using, selling, offering for sale, or importing into the United States any of the following accused products?

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 1	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 2	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 3	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 4	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 5	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 6	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 8	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 11	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 12	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No		
Claim 13	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 14	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 16	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 18	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 19	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 21	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No

4.B. If you answered "Yes" to any part of Question 4.B. above, has Omega proven by a preponderance of the evidence that CalAmp's infringement was willful?

_____Yes _____✓ No

5. Infringement Damages

5.A. What sum of money has Omega proven by a preponderance of the evidence that it is entitled to recover as a reasonable royalty for CalAmp's infringement of the '727 patent, and any infringement by CalAmp of the '278, '885, and '876 patents that you found above? **Please write down both the total damages awarded (in dollars) you find is adequate to compensate Omega for any infringement of the asserted patents you have found by CalAmp, and the number of CalAmp's accused products that you have included in your damages calculation in the spaces provided below.**

Total damages awarded: $ 4,586,111

Number of accused products included in damages award: 917,223

5.B. Of the total number of accused products found to infringe and therefore included in the damage award (see question 5.A. above), how many accused products have been found to infringe each patent (for any patents found not infringed, please leave that line blank):

'876 patent: Ø

'885 patent: Ø

'727 patent: 1 unit

'278 patent: 917,222 unit

5.C. Please identify the per product royalty that would apply to each patent you found to infringe:

i. '876 patent $ Ø

ii. '885 patent $ Ø

iii. '727 patent $ 1.00

iv. '278 patent $ 5.00

After answering Question 5, sign and date this Verdict Form.

SO SAY WE ALL THIS 30 DAY OF September, 2019.

JURY FOREPERSON

Allen, Dyer, Doppelt + Gilchrist, PA
INTELLECTUAL PROPERTY LAW

Herbert L. Allen
Ava K. Doppelt
Brian R. Gilchrist
Christopher F. Regan
David L. Sigalow
Richard K. Warther

Michael W. Taylor
John F. Woodson II
Ryan T. Santurri
Robert H. Thornburg
Jack G. Abid
David S. Carus

Justin R. Sauer
Allison R. Imber
Matthew G. McKinney
Jaafar Choufani
Stephanie Vazquez
David Roncayolo

jabid@allendyer.com

March 5, 2021

VIA EMAIL ONLY MGARRED@STETINALAW.COM

Stetina, Brunda, Garred, & Brucker, PC
75 Enterprise
Suite 250
Aliso Viejo, California 92656

Re: ***Ex Parte Reexamination of U.S. Patent No. 8,032,278***
Application Serial Number 90/014,675

Dear Mr. Garred:

As you are aware, we represent the owner of the above noted '278 patent, Omega Patents, LLC. We reviewed your above noted second request for ex parte reexamination of the '278 patent based upon U.S. Patent No. 6,611,740 to Lowrey et al. We respectfully suggest that you update the Patent Office with further information regarding the "recently identified" nature of the prior art. In particular, we request that you correct the record regarding your long-standing knowledge of this reference.

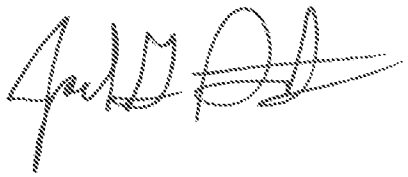
This is your second request for ex parte reexamination, with your first having been filed on December 16, 2019. And, of course, Innova's customer, CalAmp, directly filed three of its own serial reexamination requests on: (1) September 14, 2015; (2) October 28, 2016; and (3) May 24, 2019. The litigation sparking this series of reexamination requests was filed against CalAmp on December 20, 2013. All of the serially harassing reexamination activity has failed.

On pages 1-2 of your second request (fifth in the series), you state: "**[r]ecently**, additional prior art that was not previously considered by the United States Patent and Trademark Office ("USPTO") **has been identified** that is believed to raise a substantial new question of patentability."

This language is misleading. Indeed, seventeen Innova Electronics Corporation patents cite this same reference, and predate the present reexamination request and your first reexamination request. The "recently identified" Lowrey et al. patent **was cited in cases you personally prosecuted**, see, e.g., U.S. Patent Nos. 10,643,403 (filed September 30, 2015 and issued May 5, 2020); 10,640,060 (filed March 8, 2017

and issued May 5, 2020); 10,462,225 (filed August 25, 2017 and issued October 29, 2019); and 10,163,281 (filed January 12, 2017 and issued December 25, 2018).

Regards,



Jack G. Abid

LAW OFFICES
Stetina Brunda Garred & Brucker
A PROFESSIONAL CORPORATION
PATENT, TRADEMARK, COPYRIGHT AND UNFAIR COMPETITION CAUSES

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March 11, 2021

Via Email Only
jabid@allendyer.com

Jack Abid, Esq.
Allen, Dyer, Doppelt, & Gilchrist PA
255 South Orange Avenue, Suite 1401
Orlando, FL 32801

RE: Ex Parte Reexamination of U.S. Patent No. 8,032,278
Application Serial Number 90/014,675

Dear Mr. Abid:

I am in receipt of your letter of March 5, 2021. I reviewed the part of the reexamination request you referred to and I do not understand why you find it misleading, nor do I think it is unclear in any way.

As you are aware, it is necessary to establish a substantial new question of patentability when filing an *ex parte* reexamination request. To this end, it is useful (and typical) to point out that the reference being relied upon is not of record at the Patent Office. This is because the question of whether the reference was already considered by the Patent Office in relation to patentability is central to the substantial new question inquiry. On the other hand, it is not necessary to provide an explanation of how or when the reference became known to the third-party requester.

In this instance, I volunteered, correctly, that additional prior art believed to raise a substantial new question of patentability had been identified *recently* in the form of the highly relevant Lowrey reference (U.S. Patent No. 6,611,740). The fact that the same Lowrey reference may have crossed my desk in a completely unrelated context at an earlier date does not change this fact. As best understood, your concern is that I was aware of the Lowrey reference at another time in another context. However, the reexamination request does not discuss my prior knowledge of the Lowrey reference in general, only the timing of identifying additional prior art believed to raise a substantial new question of patentability.

For the foregoing reasons, I do not find your accusation of misleading language to be well taken, and thus see no need to "correct the record" at the Patent Office.

Very truly yours,

STETINA BRUNDA GARRED & BRUCKER



Mark B. Garred

MBG/akl

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UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
ORLANDO DIVISION

OMEGA PATENTS, LLC,

Plaintiff,

v. Case No: 6:13-cv-1950-Orl-40DCI

CALAMP CORP.,

Defendant.
_____/

ORDER

This cause is before the Court on the following:

1. Plaintiff's Motion for Entry of Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction (Doc. 148), filed March 9, 2016;
2. Plaintiff's Renewed Motion to Award Prejudgment Interest (Doc. 154) filed March 18, 2016;
3. Defendant's Response in Opposition to Plaintiff's Renewed Motion to Award Prejudgment Interest (Doc. 166), filed April 4, 2016;
4. Defendant's Opposition to Plaintiff's Motion for Entry of Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction (Docs. 169, 170), filed April 11, 2016;
5. Plaintiff's Notice of Filing Declarations (Doc. 187), filed April 28, 2016;
6. Defendant's Notice of Filing Responsive Declarations (Doc. 188), filed April 29, 2016;

7. Defendant's Notice of Supplemental Authority regarding Response in Opposition to Plaintiff's Motion for Entry of Final Judgment (Doc. 192), filed May 17, 2016;
8. Defendant's Notice of Grant of Reexamination of '885 Patent (Doc. 193), filed June 6, 2016;
9. Plaintiff's Notice of Supplemental Authority (Doc. 194), filed June 13, 2016;
10. Defendant's Response to Plaintiff's Notice of Supplemental Authority (Doc. 195), filed June 14, 2016;
11. Plaintiff's Response to Defendant's Notice of Supplemental Authority at Docket Number 192 (Doc. 198), filed July 19, 2016;
12. Defendant's Reply to Plaintiff's Response to Notice of Supplemental Authority (Doc. 199), filed July 22, 2016;
13. Defendant's Notice of Grant of Supplemental Authority (Patent Office Action) (Docs. 200, 201), filed August 30, 2016; and
14. Defendant's Notice of Supplemental Authority (Patent Office Action) (Doc. 202), filed September 19, 2016.

Upon due consideration, and after reviewing the pleadings and the transcript of the trial (Doc. 178–184) and the transcript of the post-trial motion's hearing (Doc. 196), Plaintiff's Motions for Entry of Final Judgement, Enhanced Damages, and Reasonable Attorneys' Fees are granted, and Plaintiff's motions for Permanent Injunction is denied.

I. BACKGROUND

Omega Patents, LLC ("Omega") brought the instant action against CalAmp Corp. ("CalAmp") and contends that CalAmp infringed the claims of U.S. Patent No. 6,346,876

("the '876 Patent")[1], U.S. Patent No. 6,756,885 ("the '885 Patent")[2], U.S. Patent No. 7,671,727 ("the '727 Patent")[3], and U.S. Patent No. 8,032,278 ("the '278 Patent")[4] (collectively, the "patents-in-suit").[5] (Doc. 1). The trial of this matter commenced on February 16, 2016, and concluding on February 24, 2016, (Doc. 178–184), with the jury returning a verdict in favor of Omega in which they found that all of Omega's asserted claims were valid and had been infringed upon by CalAmp's accused devices: the LMU 3000, LMU 3030, LMU 3050, the V-Pod and the V-Pod 2. (Doc. 144, p. 1–6). The jury rejected the Defendant's invalidity contentions and made three findings for Plaintiff on secondary considerations indicating nonobviousness. (*Id.* at pp. 7–9). Finally, the jury found Plaintiff had proven by clear and convincing evidence that CalAmp acted despite an objectively high likelihood that its actions infringed a valid patent and that this high likelihood of infringement was either known or so obvious that it should have been known to CalAmp. (*Id.* at pp. 9–10). The jury awarded damages in the amount of $2,975.200. (*Id.* at p. 10).

Omega contends the Court should award reasonable attorneys' fees pursuant to 35 U.S.C. § 285, enhanced damages pursuant to § 284, and a permanent injunction pursuant to § 283. (Doc. 148). CalAmp opposes the relief requested by Omega. (Doc. 169). The Court held oral argument on the post-trial motions on May 2, 2016. (Doc. 196).

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[1] The jury found infringement of claims 1, 3, 4, 5, 12, 14, and 16. (Doc. 144, p. 2).
[2] The jury found infringement of claims 1, 2, 3, 12, and 14. (*Id.* at p. 3).
[3] The jury found infringement of claims 1, 10, and 11. (*Id.* at p. 4).
[4] The jury found infringement of claims 1–6, 8, 11–16, 18–19, and 21. (*Id.* at pp. 5–6).
[5] The patents-in-suite relate to control systems for vehicles with a "data communication bus." The term "data communication bus" has been previously construed by the Court to mean "wired connection for communication of digital messages among vehicle devises, with each message including one or more device addresses." (Doc. 50, p. 25).

The parties subsequently submitted numerous pleadings consisting of supplemental authority and notices of *ex parte* reexamination by The Patent Office of the '278 patent, the '885 patent, and the '876 patent. (Docs. 198–202).

II. STANDARD

A. Enhanced Damages

When this litigation proceeded to trial, the issue of enhanced damages was governed by the two-step inquiry announced by the Federal Circuit in *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (*en banc*). Following oral argument on Omega's motion for enhanced damages, the United States Supreme Court decided *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923 (2016). The Court in *Halo* rejects the *Seagate* two-part test for determining when a district court my increase damages pursuant to 35 U.S.C. § 284 as being inconsistent with the plain language of the statute. *Halo*, 136 S. Ct. at 1928. Following a historical exegesis of enhanced damages under the Patent Act, the Court concluded that "although there is 'no precise rule or formula' for awarding damages under § 284, a district court's 'discretion should be exercised in light of the considerations' underlying the grant of that discretion." *Halo,* 136 S. Ct. at 1932 (quoting *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1756 (2014)).

The Court in *Halo* remarked that enhanced damages under patent law "should generally be reserved for egregious cases typified by willful misconduct." *Halo*, 136 S. Ct. at 1934. The Court observed that "[t]he sort of conduct warranting enhanced damages has been variously described in our cases as willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or—indeed—characteristic of a pirate." *Halo,*

136 S. Ct. at 1932. The Court rejected the heightened standard of proof provided for by the Federal Circuit in *Seagate* in favor of a preponderance of the evidence standard. *Halo,* 136 S. Ct. at 1934. The type of culpability that supports an award of enhanced damages is "measured against the knowledge of the actor at the time of the challenged conduct." *Halo,* 136 S. Ct. at 1933.[6] Once a jury determines that an infringer "is guilty of conduct upon which increased damages may be based [,] … the court then determines, exercising its sound discretion, whether, and to what extent, to increase the damages award given the totality of the circumstances." *Jurgens v. CBK, Ltd.*, 80 F.3d 1566, 1570 (Fed. Cir. 1996). While a finding of willful infringement does not mandate the imposition of enhanced damages, once the finding is made "the court must explain its reasons for declining to award enhanced damages." *Carnegie Mellon Univ. v. Marvell Tech. Group, Ltd.*, No. CIV.A. 09-290, 2014 WL 1320154, at *9 (W.D. Pa. Mar. 31, 2014), *rev'd in part on other grounds*, 807 F.3d 1283 (Fed. Cir. 2015).

B. Attorney's Fees

The Supreme Court in *Octane Fitness* rejected the "more rigid and mechanical formulation" for determining when the district court may award reasonable attorney fees to the prevailing party in favor of the plain statutory text of § 285, which provides "[t]he court in exceptional cases may award reasonable attorney fees to the prevailing party." 35 U.S.C. § 285; *Octane Fitness*, 134 S. Ct. at 1755. An exceptional case is "simply one that stands out from others with respect to the substantive strength of a party's litigating

[6] The Court in *Halo* criticized, in pertinent part, the second prong of the *Seagate* test which allowed an infringer to escape enhanced damages by mustering a defense of invalidity or noninfringement at trial "even if [the infringer] did not act on the basis of the defense or was even aware of it." *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1933 (2016).

position (considering both the governing law and the facts of the case) or the unreasonable manner in which the case was litigated." *Octane Fitness*, 134 S. Ct. at 1756. The district court applies the preponderance of the evidence standard and considers the totality of the circumstances. The district court may consider a number of factors in determining whether to award fees, including: (1) whether the infringer deliberately copied the invention; (2) whether the infringer had a good faith basis for believing it did not infringe or that the patent was invalid; (3) the closeness of the case; (4) conduct of the part in litigation; (5) defendant's relative size and financial condition; (6) the duration of the infringement; (7) remedial action by the defendant; (8) defendant's motivation for harm, and (9) whether defendant attempted to conceal its misconduct. *Read Corp. v. Portec, Inc.,* 970 F.2d 816, 827 (Fed. Cir. 1992).[7]

C. Permanent Injunction

The Supreme Court in *eBay Inc. v. MercExchange, L.L.C.*, 126 S. Ct. 1837, 1839 (2006), held that to obtain an injunction a party "must demonstrate: (1) that is has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest wound not be disserved by a permanent injunction." The Federal Circuit subsequently held that *eBay* eliminates a presumption of irreparable injury to the patent holder after a judgment of infringement and of no invalidity is returned. *Robert Bosch LLC v. Pylon Mfg. Corp.,* 659 F.3d 1142, 1149 (Fed. Cir. 2011). Moreover, there must be a

[7] The *Read* factors are equally applicable to the assessment of enhanced damages.

causal nexus between the irreparable injury and the patent infringement. *Apple Inc. v. Samsung Elecs. Co.*, 735 F.3d 1352, 1360 (Fed. Cir. 2013).

III. DISCUSSION

Mr. Flick, the inventor of the four patents at issue, met with representatives of CalAmp, including Mr. Gallin Chen, in 2009 at a trade show to discuss Omega's belief that CalAmp was infringing certain patents. (Doc. 179, 76:10-18). During this initial meeting, Mr. Chen expressed his view that the Omega patents were invalid, but he nonetheless requested a draft license agreement. (*Id.* at 78:1-11). Omega complied and sent CalAmp a license agreement that CalAmp rejected shortly thereafter, resulting in Omega filing suit against CalAmp on December 15, 2009.[8] (*Id.*). Once litigation had commenced, Mr. Chen agreed to meet with Mr. Flick again at a trade show scheduled for January 2010. (*Id.* at 81:14-18). During the ensuing conversation, Mr. Chen represented to Omega that CalAmp did not program their products and any alleged infringement was caused by the end-user who programs the CalAmp devices. (*Id.* at 81:24– 82:13). Based upon this representation Mr. Flick stayed the litigation against CalAmp and sued two end users: Numerex and Sky Patrol. (*Id.*). Numerex quickly settled with Omega and entered into a licensing agreement. (*Id.* at 82:14-23). Sky Patrol, however, revealed that, contrary to Mr. Chen's representation, CalAmp was responsible for programing their offending devices.[9] (*Id.* at 83:11–84:12). CalAmp subsequently settled with Omega and agreed to pay a royalty. (*Id.* at 84:13-21; Pl.'s Ex. 45).

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[8] The lawsuit filed by Omega in 2009 pertained to patents other than those at issue in the instant litigation.

[9] The deposition of CalAmp engineer, Peter Hergesheimer, was played at trial, and Mr. Hergesheimer acknowledged that CalAmp programs LMUs for approximately 75% of their customers, contradicting Mr. Chen's claim that CalAmp sold a black box. Mr.

Against this backdrop, CalAmp introduced the accused devices in late 2011 or early 2012. (Doc. 182, 53:2-5). Prior to introducing the accused products, CalAmp's counsel, Mr. David Bailey, reviewed a number of patents held by the Plaintiff, including the '885 and '727 patents at issue in this litigation. (Pl.'s Ex. 39). At the same time counsel for Omega and for CalAmp engaged in discussions concerning Omega's "extensive patent portfolio" in the area of databus applications.[10] (Pl.'s Ex. 34). It is, therefore, beyond dispute that CalAmp was fully aware of the Omega patents prior to introducing the accused products into the market.

Mr. Chen admitted on cross-examination that the LMUs and V-Pod and V-Pod2 were introduced as a direct result of consumer demand. (Doc. 182, 142:11-24). Mr. Chen explained that the LMUs connect to the vehicle data bus and read data from the bus. (*Id.* at 54:8-14). According to Mr. Chen, the LMU has a transmitter and a receiver, can read data from the vehicle data bus, can query a vehicle device for data, and can store the data received in response to the query. (*Id.* at 129:1-21). The '727 patent held by Omega, for example, claims a speed exceeded notification device for a vehicle comprising a "vehicle data communications bus" and "at least one vehicle device generating data related to vehicle speed on the" bus which determines when a vehicle's speed has exceeded a set threshold. (Joint Ex. 4, column 7, lines 4-17).

In an attempt to distinguish the LMU devices from the '727 patent, Mr. Chen testified that the LMU speed data is derived from the GPS module and not from the vehicle

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Hergesheimer also testified that software is loaded on the LMU online, because that is more cost effective than loading it at the time of manufacture.

[10] CalAmp engineer, Peter Hergesheimer, testified at trial via deposition that he did not design around the Omega patents.

bus.[11] (Doc. 182, 133:13-21). He added that the LMU has the capacity to read speed from the bus, but CalAmp does not allow this because speed data generated from GPS is more accurate. (*Id.*). However, Mr. Jerrery Eidberger, a CalAmp field application engineer, testified via deposition that a substantial percentage of customers do in fact have the LMU programmed by CalAmp to read the speed from the bus. Additionally, CalAmp responded to Omega's Frist Set of Interrogatories, wherein Omega asks CalAmp to "identify all customers for whom CalAmp has loaded scripts for geofencing or speed alerts into an Accused Product" by providing a long list of customers for whom CalAmp has loaded scripts related to speed alerts, noting that "some scripts do not cause a speed exceeded notification." (Pl.'s Ex. 16). CalAmp's acknowledgement that some scripts do not cause a speed exceeded notification means that other scripts do provide the speed exceeded notification from the vehicle bus as opposed to the GPS. Mr. Chen's testimony wherein he flatly denies the LMU reads vehicle speed from the bus is clearly contradicted by CalAmp's interrogatory answers.

Mr. Andrews, CalAmp's retained expert, echoed this misrepresentation when he testified that the CalAmp devices obtain speed data from the internal GPS sensor as opposed to obtaining speed from the bus. (Doc. 182, 248:3-5; 249:1-5). On cross-examination, Mr. Andrews admitted that if the LMU is programmed to read speed from the data bus and make the threshold determination that the speed has been exceeded, the accused device infringes the '727 patent. (Doc. 183, 172:19-22). Either Mr. Andrews ignored CalAmp's answers to Omega's interrogatories in reaching his opinion that the

[11] The '727 patent indicates that it is an object of the invention "to provide a speed exceeded notification device which may be readily used in a vehicle including a data communications bus and related methods." (Joint Ex. 4, column 2, lines 38-40).

accused products do not infringe the '727 patent because speed is derived via GPS, or CalAmp withheld this information from its expert in order to obtain a non-infringement opinion. Either way, the testimony of Mr. Chen and Mr. Andrews provide substantial support for the jury's finding of willful infringement of the '727 patent, and this Court concurs in the jury's finding of willful infringement.

Further indicia of willful infringement by CalAmp is found in an e-mail sent by Mr. Chen to outside patent counsel, Mr. David Bailey[12], and senior vice president for corporate development, Mr. Garo Sarkissian. (Doc. 182, 112:13-19). On July 30, 2013, eight months after Omega instituted this lawsuit, Mr. Chen wrote to Messrs, Bailey, and Sarkissian and asked them to look at the '278 patent. (Pl.'s Ex. 48). Referring to claim 13 of the '278 patent, Mr. Chen wrote: "13 may relate to how we program a unit at the factory so it may be harder to avoid." (*Id.*). The '278 patent has as an object of the invention to "provide a multi-vehicle compatible tracking unit which may be used to control operable vehicle devices, and/or read information therefrom via the vehicle data communications bus." (Joint Ex. 5, column 2, lines 46-49). Clearly, Mr. Chen was concerned as late as July 30, 2013, that the accused devices infringe claim 13 of the '278 patent, as the jury ultimately found. His admission in this e-mail that the units are programed at the CalAmp factory is further evidence that his trial testimony describing the LMU as a black box, programmed by the end-user, was false.

In the same e-mail, Mr. Chen predicts what will ultimately become a defense theory advanced at trial, when he writes: the '727 patent "can be avoided by using GPS speed,

[12] Mr. Bailey is an attorney practicing in the same firm as trial defense counsel. (Doc. 182, 144:20-25).

not vehicle bus received speed, for speeding alerts." (Joint Ex. 5). It is difficult to ascribe a good faith basis for persisting at trial on the theory that the LMU determines speed from the GPS, as opposed to obtaining the data from the bus, when CalAmp's supplemental response to Omega's interrogatory, in which CalAmp admits to loading scripts for speed exceeded notification, was filed March 6, 2015—more two years after Mr. Chen suggested to his counsel and his colleague that using GPS speed will allow CalAmp to avoid the '727 patent. This email is consistent with an attempt to create a plausible defense at trial, perhaps in anticipation of the then-available *Seagate* enhanced damages analysis.[13] That Mr. Chen continued to advance the GPS theory at trial and in view of CalAmp's interrogatory answer demonstrates willful copying of Omega's invention.

In an attempt to satisfy the *Seagate* two-part test at trial, Mr. Chen testified that prior to launching the accused devices, CalAmp investigated the vehicle data bus market. (Doc. 182, 55:21-24). Mr. Sarkissian directed Mr. Chen to search for prior art, resulting in Mr. Chen reviewing over 300 patents. (*Id.* at 57:12–58:2). Mr. Chen also stated that in late 2010, Mr. Sarkissian, Mr. Steven Moran (CalAmp's general counsel), and he had received verbal opinions from Mr. Bailey that the accused products did not infringe existing patents. (*Id.* at 114:7-25; 117:7-12). Mr. Chen stated that he did not request Mr. Bailey to memorialize these oral opinions in writing until after the lawsuit was commenced by Omega. (*Id.* at 145:1-3). The defense marked for identification exhibits 71–74, which are opinion letters written by Mr. Baily as to each patent-in-suit, and each opinion letter is

[13] The Supreme Court in *Halo* disapproved of the *Seagate* test in part because it allowed an infringer to "escape any comeuppance under § 284 solely on the strength of his attorney's ingenuity." *Halo*, 136 S. Ct. at 1933. Hence, opinion letters issued after-the-fact shed little light upon the infringer's culpability which must be "measured against the knowledge of the actor *at the time* of the challenged conduct." *Id.* [emphasis added].

dated June 27, 2014.[14] (Def.'s Exs. 71–74). However, it is curious—assuming Mr. Bailey had vetted the accused products against existing patents back in 2010—that in July 2013 Mr. Chen highlighted the difficulty of avoiding claim 13 of the '278 patent and suggested that the '727 patent can be avoided by focusing upon GPS speed determination. If, in fact, counsel had vetted the accused devices and the Omega patents three years earlier, there is no reason for Mr. Chen to suggest a noninfringement theory to his counsel, nor is there any reason for Mr. Chen to be concerned over claim 13 of the '278 patent. The Court does not find the testimony of Mr. Chen or of Mr. Bailey credible on the issue of whether counsel had rendered legal opinions prior to the launch of the accused products in which he opined the accused products do not offend any patent held by Omega. Mr. Chen's credibility is undermined by other evidence presented at trial[15], and it is incomprehensible that counsel would refrain from issuing a written opinion of noninfringement or invalidity to his client at or near the time that CalAmp launched the accused products. No reasonable explanation for this highly unusual practice was offered by CalAmp or Mr. Bailey.

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[14] The Court sustained Omega's objection to the admissibility of Mr. Bailey's opinion letters on the grounds that the letters—offered during Mr. Chen's testimony—constitute hearsay, and the letters confer expert testimony which was not properly disclosed by the Defense. However, the Court has considered the four opinion letters for purposes of the enhanced damages analysis. The Court is unaware of the substance of the verbal opinions allegedly offered by Mr. Bailey in 2010 prior to the launch of the accused products.

[15] Mr. Chen testified via deposition that he removed information from the CalAmp website regarding the LMU devices to make it more difficult for Omega to identify infringement. (Pl.'s Ex. 48) ("We don't want to make it easy for Omega to build their infringement case by just looking at the datasheets on our website. . . . the bigger hole is LMU 3000; it's launched, mature and broadly integrated by multiple partners. We can bury (i.e. omit) the LMU3030 for now on open website.").

The Court next considers whether this was a "close case" and whether CalAmp held a good faith belief the patents were not infringed or were invalid. CalAmp and their expert, Mr. Andrews, note that the Omega patents require the performance of a control function. (Doc. 182, p. 177:7-15; Doc. 195, p. 3). At trial Mr. Andrews defined "control function" as "a message on the bus that is going to control a device exhibiting a physical change in the device or the system." (Doc. 182, 177:7-15). The notion that control function envisions a physical change is critical to the Defendant's noninfringement arguments. Based upon the Court's review of Mr. Andrew's initial expert report, (Def.'s Ex. 38), this definition of control function does not appear in his original expert report. Mr. Andrews acknowledged on cross-examination that he did not apply the physical change qualifier to control function in his deposition. (Doc. 183, 103:10-14). Mr. Andrews explained that he had misspoken in his deposition when he failed to describe control function as requiring a physical change in the device or the system. (*Id.*). Mr. Andrews did, however, include in his rebuttal report the definition of control function as having the ability to enable a physical change in a device of the system; for example, locking a door, starting the engine, or turning on a light." (Def.'s Ex. 47, pp. 11–12). The crux of the non-infringement defense is that the LMU merely sends a "query for data" and does not control a vehicle device. (Doc. 182, p. 177:20-22). Because the LMU does not control a vehicle device, Mr. Andrews argues the accused products cannot satisfy the multi-vehicle compatible controller claim in the patents. (*Id.* at 238:9-12; 238:25–239:6; 239:14–240:6). Accordingly, Mr. Andrews' definition of control function as mandating a physical change precludes one from finding for Plaintiff Omega.

In order for Mr. Andrews' non-infringement argument to prevail, one must accept his opinion that the LMU is a passive device that uses the bus to request and receive data, but which does not "perform one or more control functions" with respect to the vehicle device. (Def.'s Ex. 47, p. 12; Doc. 182, 240:9-11). The difficulty lies in finding a basis for Mr. Andrews' interpretation of "control function." The Court construed the claim term "controller" to mean "electronic circuitry that performs one or more control functions." (Doc. 50, p. 24). The claim term "multi-vehicle compatible controller" was construed by the Court to mean "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle." (*Id.*). The Court did not construe the term control function. CalAmp urged the Court to construe "function" as "[a]n operation of a vehicle device, such as remote starting the engine, remotely unlocking the vehicle doors, or changing the mode of a security system between armed and disarmed." (*Id.* at 18). But the Court observed: "The patent states the invention may be embodied in many different forms and should not be construed as limited to the illustrated embodiments set forth herein." (*Id.* at 18) (internal quotation marks and citations omitted). Accordingly, Mr. Andrews' interpretation of "control function" is not based upon the Court's claim construction. Similarly, nothing in any specification of the four patents-in-suit support Mr. Andrews' definition of "control function." (Joint Ex. 1-4; Doc. 183, 117:8-11; 118:1-6).

Mr. Andrews acknowledged that the microprocessor in the LMUs and the V-Pods sends a signal along the bus to the ECU and requests a response. (Doc. 183, 114:17–115:6). Omega's counsel engaged Mr. Andrews in the following colloquy:

> Q: Let's say the ECU responds with the device code signal—that would be controlling the ECU, wouldn't it?
>
> A: You're asking it for information. It's providing it back, yes.

Q: So that's a yes?

A: Okay.

(*Id.* at 118:9-24)

Q: And would you also agree with me … that sending a signal and getting a response could be a control function?

A: Yes.

(*Id.* at 120:5-20)

Mr. Andrews admits that when the LMU seeks information from the ECU, the ECU must respond via the bus; however, he contends this is not a control function. (*Id.* at 143:1-6). Mr. Andrews argues that "one with ordinary skill in the art, in the automotive industry in telematics, would understand the difference between a command and a query." (*Id.* at 116:7-10). It is Mr. Andrews' contention that a command—or as he would call it a query—by the LMU that produces a mandatory response by the ECU does not meet the definition of controller and control function. The Defendant's attempt to cast a mandatory response to a query as a passive act that falls short of a control function is unsupported by the record and was conspicuously absent from Mr. Andrews' initial expert report. The emergence of this opinion late in the litigation is highly suspect, particularly when one considers that Mr. Andrews' also opined that the LMU cannot infringe the '727 patent because the LMU only generates speed data from the GPS—which is clearly contradicted by CalAmp's response to Omega's interrogatories.

Mr. Andrews and counsel for CalAmp presented other non-infringement arguments at trial. However, the Court finds that these additional grounds—all of which were rejected by the jury—do not, giving the totality of the circumstances, mitigate against an award of enhanced damages and reasonable attorneys' fees. For example, Mr.

Andrews took issue with whether signals were stored on the accused devices as required by the '885 patent. (Doc. 183, 122:6-9). However, on cross-examination, Mr. Andrews agreed that the LMU sends out signals and the ECU sends a response, "[a]nd those signals are stored on the controller." (*Id.* at 123:7–124:9). Mr. Andrews admits the signals are stored on the LMU until the device is unplugged and re-plugged at which time it starts over. (*Id.* at 125:5-9). In fact, Mr. Andrews agrees the LMU is intended to be used in a manner that would store the CAN data and can be used in multiple vehicles. (*Id.* at 162:6-13).

CalAmp also presented invalidity defenses by identifying prior art that, when considered with SAE standards, rendered the patents obvious. In supplemental filings by the parties, the Court has been made aware that CalAmp sought *ex parte* reexamination of three of the patents-in-issue. The United States Patent and Trademark Office ("USPTO") has reexamined the '278 patent[16], (Doc. 192); the '885 patent[17], (Doc. 193), and the '876 patent[18], (Doc. 201). The USPTO rejected the pertinent claims of these three patents. While the USPTO issued Office Actions in *Ex Parte* Reexamination of the '278, '885, and '876 patents and rejected the relevant claims of these patents, the finding by the USPTO does not have preclusive effect as to the verdict rendered by the jury in the instant litigation unless the final USPTO decision is affirmed by the Federal Circuit before the jury's verdict become final. *Fresenius USA, Inc. v. Baxter Inter., Inc.*, 721 F.3d 1330,

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[16] Omega's response, including declarations from Mr. Suman, (Doc. 198-2), whose patent is being considered by the examiner as prior art, and Mr. McAlexander, (Doc. 198-3), demonstrates that the examination of '278 remains in a state of flux. (Doc. 198).

[17] The USPTO rejected every claim of the '885 patent on anticipation and obviousness grounds. (Doc. 202, p. 1).

[18] The USPTO rejected every claim of the '876 patent on anticipation and obviousness grounds. (Doc. 201, p. 2).

1346 (Fed. Cri. 2017). Accordingly, the Court is not bound by the examiner's non-final conclusions when determining whether the jury's verdict is supported by substantial evidence.

The Court recognizes that CalAmp does not suggest in their notices of supplemental authority that the non-final action of the PTO is outcome determinative. Rather, CalAmp cites to the examiner's findings to support the reasonableness of their reliance upon invalidity as a defense. The Court rejects CalAmp's position for a number of reasons. CalAmp's expert, Mr. Andrews, combined certain prior art, such as the Braitberg '497 patent, (Def. Ex. 10), with the Society of Automotive Engineers ("SAE") standard J1978, to predict the Omega '876 patent. (Doc. 182, 173:14–175:23; 178:8-15; 180:22–181:19). Mr. Andrews testified that "one of ordinary skill in the art [would] look to J1978 to determine how to connect the bus." (*Id.* at 184:13–18). However, Mr. Andrews, despite numerous questions posed on cross-examination, failed to articulate the motive for one of ordinary skill in the art to combine these references.[19] The best Mr. Andrews could do in suggesting a motive to combine J1978 with Braitberg is that scan tools were being used at the relevant time; hence, one would know to combine SAE J1978 with Braitberg to make a device multi-vehicle compatible.[20] (Doc. 183, 149:21–150:3). Mr. Andrews applied the Braitberg reference to the '876 and '885 patents, (Doc. 182, p. 198:1-

[19] "A party seeking to invalidate a patent on the basis of obviousness must demonstrate by clear and convincing evidence that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so." *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1360 (Fed. Cir. 2012) (internal quotation marks omitted).

[20] Mr. Andrews admits that Braitberg does not provide multiple vehicle compatibility, a claim that is necessary to invalidate the Omega patents, so he adds SAE J1978. (Doc. 183, p. 130:6-10). Interestingly, Mr. Chen testified he was unware of J1978.

20), and he applied J1978 to all four patents-in-suit. (*Id.* 250:1–270:19). The motive to combine prior art is critical to CalAmp's invalidity defense, because Mr. Andrews could not find prior art that had all of the claims that Mr. Flick has in his patents. (*Id.* at 132:17–133:7). Mr. Andrews failed to provide more than a conclusory opinion that one of ordinary skill in the art at the relevant time would have known to look to SAE J1978 in combination with the various prior art references. In this regard, Mr. Andrews' fails to assist the Defendant in carrying its burden of proof on invalidity.

In addition, the Court in *Halo* has eliminated the ability of an accused infringer to posit reasonable invalidity defenses which were not relied upon at the time the accused products were introduced into the market. *Halo*, 136 S. Ct. at 1933. Under *Seagate*, "the ability of the infringer to muster a reasonable (even though unsuccessful) defense at the infringement trial" was dispositive of the issue of enhanced damages. *Id.* Post-*Halo*, however, "culpability is generally measured against the knowledge of the actor at the time of the challenged conduct." *Id.* There is no indication in the record that Mr. Andrews provided CalAmp his opinion on invalidity before the accused products went into production in 2011. While the opinion letters issued by Mr. Bailey as to the '885 patent refer to SAE J1978, J1979, (Def.'s Ex. 73), this letter was written in June 2014 long after infringement had begun. Thus, there is no record evidence that CalAmp had knowledge of the invalidity defense derived from the combination of prior art and SAE standards at the time of the challenged conduct.[21] Since culpability is measured against the infringer's

[21] In fact, Mr. Chen filed for patent US 2010/0158211on December 21, 2011, claiming "[s]ystems and methods in accordance with embodiments of the invention continuously collect information from vehicle devices via a vehicle data bus, store information in a database, and retrieve information from the database in response to requests from

knowledge at the time of the challenged conduct, the after-the-fact invalidity defense is of little merit in assessing enhanced damages.[22]

The next *Read* factor directs the Court to consider the Defendant's size and financial condition. According to Omega's expert, Mr. Christian Tregillis, "CalAmp has sold over 245,000 units of the Accused Products, for over $21.5 million from April 2011 through November 2014," (Pl.'s Ex. 65, p. 37), "earning over $4.1 million in gross profits." (Pl.'s Ex. 65, p. 47). CalAmp is a publicly-traded corporation with over $75 million dollars in earnings last year. (Pl.'s Ex. 65). While CalAmp argues that the accused products are low-margin products sold in an extremely competitive market, this misses the point. The overall financial health of the infringer is evaluated—not the net profit generated by the offending conduct—to "ensure that enhanced damages would not prejudice defendant's non-infringing business." *Powell v. Home Depot U.S.A., Inc.*, 715 F. Supp. 2d 1285, 1298 (S.D. Fla. May 28, 2010). The Defendant has the financial wherewithal to endure the sanction of enhanced damages and an award of reasonable attorneys' fees.

A closely related factor for the Court to consider is the duration of CalAmp's conduct. As previously discussed, CalAmp was well aware of Omega's patents since at least 2010. Rather than take a license, and choosing not to design around Omega's patents, CalAmp elected to sell infringing products and continues to do so to this day. CalAmp's motivation to engage in this behavior is obvious: their customers wanted this technology, and CalAmp wanted to provide it. Moreover, as previously discussed,

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remote devices." (Pl.'s Ex. 14, Abstract). The patent issued June 21, 2012, and Mr. Chen did not disclose the prior art relied upon to invalidate Omega's similar patents.

[22] Assuming CalAmp had knowledge of the invalidity defense at the relevant time, the Court would not reach a different conclusion, since the motive to combine the prior art with the SAE standards is deficient.

CalAmp attempted to conceal its infringement by misrepresenting to Omega that it only sold black boxes which were programmed by customers and by removing information from the CalAmp website to make discovery of infringement more difficult. These additional factors all weigh in favor of an award of enhanced damages and reasonable attorneys' fees.

Based upon the foregoing, the Court finds CalAmp willfully infringed the Omega patents-in-suit, further finding that the jury's finding of willful infringement is supported by substantial evidence. The Court independently reviewed the record evidence and finds an award of enhanced damages of threefold the actual damages and an award of reasonable attorneys' fees is supported by the evidence.[23]

The Court turns now to Omega's request for a permanent injunction. Omega quotes Chief Justice Robert's concurring opinion in *eBay* wherein he remarks that from "at least the early 19th century, courts have granted injunctive relief upon a finding of infringement in the vast majority of patent cases." *eBay*, 126 S. Ct. at 1841. However, Justice Thomas speaking for the majority clarified that "the decision whether to grant or deny injunctive relief rests within the equitable discretion of the district courts, and that such discretion must be exercised consistent with traditional principles of equity, in patent disputes no less than in other cases governed by such standards." *Id.* As Justice Kennedy elaborates in his concurrence, "trial courts should bear in mind that in many instances the nature of the patent being enforced and the economic function of the patent holder

[23] The Court notes that even if the PTO's non-final action rejecting the relevant claims of the '885 and '876 patents are affirmed by the Federal Circuit, enhanced damages and reasonable attorneys' fees are appropriate for the willful infringement of the '727 and '278 patents—assuming the '278 patent survives reexamination.

present considerations quite unlike earlier cases." *Id.* at 1842. Justice Kennedy cautions trial courts to use care in issuing permanent injunctions in the context of patent holders who primarily employ their patent to obtain licensing fees. *Id.* "When a patented invention is but a small component of the product the companies seek to produce and the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for infringement and an injunction many not serve the public interest." *Id.*

Mr. Flick is a patent holder who presently generates revenue by licensing his patents; he no longer manufactures products. While Omega argues that it has maintained a restrictive licensing program of the patents-in-suit and has selectively licensed only a limited number of entities in the marketplace, (Doc. 148, p. 17), it is equally true that Omega was willing to license its patents to CalAmp. While Mr. Flick testified that Omega requires most licensees to transfer rights of improvements to Omega in order to strengthen its patents, it is clear that Omega does not require every licensee to agree to this term. In fact, the License Agreement entered into between Omega and CalAmp in relation to the products sold to SKYPATROL does not provide for assignment of improvements to Omega. (Pl.'s Ex. 88).

While cognizant of Omega's contention that a compulsory licensing agreement does not make Omega whole, and recognizing the Court need not balance the hardships in cases of willful infringement[24], the Court finds that monetary damages are adequate to compensate Omega for the injury sustained by CalAmp's infringement. Moreover, as

[24] *United States v. Marine Shale Processors*, 81 F.3d 1329, 1358 (5th Cir. 1996); *see also Windsurfing Int'l v. AMF, Inc.*, 782 F.2d 995, 1003 (Fed. Cir. 1986).

indicated by the declaration of Mr. Michael Zachan, CalAmp's Senior Vice President, a number of public safety, local government, and utility providers would be placed at a considerable disadvantage in the execution of their important duties if a permanent injunction issues. The Court agrees with Omega that the logistic and financial turmoil that befalls CalAmp should an injunction be ordered is of their own design. However, the collateral impact upon important public safety functions weighs against a permanent injunction.

For the foregoing reasons, the Court denies Omega's request for a permanent injunction, finding that the payment of customary licensing fees to Omega is adequate to protect the interests of Omega.

IV. CONCLUSION

For the aforementioned reasons, it is **ORDERED AND ADJUDGED** as follows:

1. Plaintiff Omega Patents, LLC's Motion for Entry of Final Judgement (Doc. 148) is **GRANTED**.
2. Plaintiff Omega Patents, LLC's Renewed Motion to Award Prejudgment Interest (Doc. 154) is **GRANTED**.
3. Plaintiff Omega Patents, LLC's Motion for Enhanced Damages (Doc. 148) is **GRANTED** and Plaintiff is awarded treble damages in the amount of eight million, nine hundred and twenty-five thousand and six hundred dollars ($8,925,600).
4. Plaintiff Omega Patents, LLC's Motion for Entitlement to Reasonable Attorneys' Fees (Doc. 148) is **GRANTED**.

5. Plaintiff Omega Patents, LLC's Motion for Entry of a Permanent Injunction (Doc. 148) is **DENIED**.

DONE AND ORDERED in Orlando, Florida, on April 6, 2017.

PAUL G. BYRON
UNITED STATES DISTRICT JUDGE

Copies furnished to:

Counsel of Record
Unrepresented Parties

Electronic Acknowledgement Receipt

EFS ID:	43575945
Application Number:	90014675
International Application Number:	
Confirmation Number:	7247
Title of Invention:	VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS
First Named Inventor/Applicant Name:	8032278
Customer Number:	27975
Filer:	Jack G. Abid/Sheryl Scheibe
Filer Authorized By:	Jack G. Abid
Attorney Docket Number:	CAAMP-001X
Receipt Date:	23-AUG-2021
Filing Date:	16-FEB-2021
Time Stamp:	15:01:25
Application Type:	Reexam (Patent Owner)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Response after non-final action-owner timely	SLS58106CIP1REX5ROA.pdf	464058 264ea6ce475b43ff08f6134bb631f2ee35c214f4	no	35

Warnings:

Information:					
2	Miscellaneous Incoming Letter	SLS58106CIP1REX5EX1.pdf	80521 0c94108924bd867cd2d08a4921ae4c6fbc2a2de7	no	10
Warnings:					
Information:					
3	Miscellaneous Incoming Letter	SLS58106CIP1REX5EX2.pdf	232001 be3b6bb909e6384202265b0eb170b510844c2ae9	no	10
Warnings:					
Information:					
4	Miscellaneous Incoming Letter	SLS58106CIP1REX5EX3.pdf	226798 348990cc6c942210d5bc105b54cc1aa914eea698	no	7
Warnings:					
Information:					
5	Miscellaneous Incoming Letter	SLS58106CIP1REX5EX4.pdf	553059 2242cf48d4a365c393cb464fcc673c6a35604a98	no	2
Warnings:					
Information:					
6	Miscellaneous Incoming Letter	SLS58106CIP1REX5EX5.pdf	202853 50d48c442a3f2035a0a971260f9d50ee61a2bf0d	no	2
Warnings:					
Information:					
7	Miscellaneous Incoming Letter	SLS58106CIP1REX5EX6.pdf	258949 d30cf52513ec49d9793542660c9d94c6fbd1bca3	no	23
Warnings:					
Information:					
			Total Files Size (in bytes):	2018239	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: **KENNETH E. FLICK** Request for Reexamination of **8,032,278** Control No. **90/014,675** Confirmation No. **7247** Filing Date: **2/16/2021** For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	Attorney Docket No.: **(58106CIP1_REX5)** Examiner: **L. WASSUM** Art Unit: **3992**

RESPONSE TO THE
OFFICE ACTION MAILED JUNE 21, 2021
IN EX PARTE REEXAMINATION

EFILED
Commissioner for Patents

Dear Commissioner:

Responsive to the Official Action of June 21, 2021, please enter the amendments and remarks set out below.

If any fee is required, authorization is given to charge Deposit Account No. 01-0484.

In the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

1. (Pending) A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

2. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface comprises a wired signal downloading interface.

3. (Pending) The multi-vehicle compatible tracking unit according to claim 2 wherein said wired signal downloading

interface comprises a connector for temporary connection to a downloading device.

4. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface comprises a wireless signal downloading interface.

5. (Pending) The multi-vehicle compatible tracking unit according to claim 4 wherein said wireless signal downloading interface comprises a wireless receiver for temporary connection to a downloading device.

6. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

7. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

8. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

9. (Pending) The multi-vehicle compatible tracking unit according to claim 1 further comprising a remote transmitter; and wherein said multi-vehicle compatible

controller also performs at least one vehicle remote control function responsive to said remote transmitter.

10. (Pending) The multi-vehicle compatible tracking unit according to claim 9 wherein the at least one vehicle remote control function comprises at least one of a vehicle security function, a remote keyless entry function, and a remote engine starting function.

11. (Pending) The multi-vehicle compatible tracking unit according to claim 1 wherein said wireless position determining device comprises a Global Positioning System (GPS) receiver.

12. (Pending) The multi-vehicle compatible tracking unit according to claim 1 further comprising a housing containing said vehicle position determining device, said wireless communications device, said multi-vehicle compatible controller, and said downloading interface.

13. (Pending) A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller;

said downloading interface comprising a connector for temporary connection to a downloading device.

14. (Pending) The multi-vehicle compatible tracking unit according to claim 13 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

15. (Pending) The multi-vehicle compatible tracking unit according to claim 13 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

16. (Pending) The multi-vehicle compatible tracking unit according to claim 13 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

17. (Pending) The multi-vehicle compatible tracking unit according to claim 13 further comprising a remote transmitter; and wherein said multi-vehicle compatible

controller also performs at least one vehicle remote control function responsive to said remote transmitter.

18. (Pending) A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller;

said downloading interface comprising a wireless receiver for temporary connection to a downloading device.

19. (Pending) The multi-vehicle compatible tracking unit according to claim 18 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

20. (Pending) The multi-vehicle compatible tracking unit according to claim 18 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

21. (Pending) The multi-vehicle compatible tracking unit according to claim 18 wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

22. (Pending) The multi-vehicle compatible tracking unit according to claim 18 further comprising a remote transmitter; and wherein said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter.

REMARKS

The Patent Owner thanks the Examiner for the careful and thorough reexamination of the issued claims of the '278 patent, now on their fifth reexamination. The patentability of the issued claims has been confirmed repeatedly by the U.S. Patent and Trademark Office. The Patent Owner thanks the U.S. Patent and Trademark Office and the conferee Examiners for extending all courtesies to the Patent Owner's Representatives during the telephone interview of July 22, 2021. The Patent Owner filed an Interview Summary under separate cover on July 28, 2021. The Patent Owner also thanks the Examiner for confirming the patentability of Claims 2-3 and 12-17.

Additionally, the Patent Owner submits herewith a Rule 132 Declaration from Joseph C. McAlexander, III (Exhibit 1) (the technical consultant for the related litigation with the Requester's customer, and the technical consultant for the prior reexaminations of the '278 patent) in support of arguments for patentability.

The Patent Owner submits that all of the claims are patentable, presents arguments herein supporting such patentability, and respectfully requests that the Examiner withdraw all pending rejections and issue a Reexamination Certificate confirming all claims as patentable.

I. Background

A. The Related Litigation

The Requester, i.e. the Innova Electronic Corporation (hereinafter "Innova"), is a supplier of an infringing product to the CalAmp Corporation (hereinafter "CalAmp"). The past four

ex parte reexaminations of the '278 patent have been filed by the Requester and CalAmp.

Personnel of CalAmp began patent licensing discussions with Mr. Flick, President of the Patent Owner, in approximately 2005. Meetings were held in 2009 and a patent license was offered, and rejected, resulting in a lawsuit filed December 14, 2009. This suit did not involve the '278 patent under reexamination, and was resolved on June 9, 2010.

Further licensing discussions with CalAmp failed and another lawsuit was filed against CalAmp on December 20, 2013. (6:13-cv-01950-PGB-DCI, in the Middle District of Florida (Orlando)). This case involved the present '278 patent.

On February 24, 2016, the related seven-day jury trial involving the '278 patent was concluded with a First Jury Verdict (Exhibit 2), where CalAmp was found to infringe all of the asserted claims in all of asserted patents, and, in particular, the asserted Claims 1, 3-5, 12, 14 and 16 of the '278 patent. In the finding that the '278 patent was not invalid, the Jury found secondary factors indicating non-obviousness of the '278 patent.

In the related litigation between the Patent Owner and CalAmp, which ultimately resulted in a rejection of CalAmp's invalidity arguments, CalAmp on April 20, 2018 filed its first appeal brief with the Court of Appeals for the Federal Circuit. The Patent Owner filed its responsive brief on May 30, 2018, and CalAmp filed a reply brief on July 2, 2018. Of particular relevance, CalAmp's briefs in the litigation raised no issues with respect to validity of any of the asserted patents (including the '278 patent) in view of the prior art carefully

selected and presented at trial.

On April 8, 2019, the Appeal was affirmed-in-part, reversed-in-part, and vacated-in-part. The decision remanded the case back to the District Court for a retrial. During the retrial, CalAmp did not challenge the validity of the infringed claims. The second trial concluded on September 30, 2019, and the Jury found CalAmp infringed the '278 patent and awarded $4,586,111 in damages. (*See* Second Jury Verdict, Exhibit 3). The court jury also awarded an ongoing royalty of $5 a unit for the '278 patent.

CalAmp on May 14, 2020 filed a second appeal brief with the Court of Appeals for the Federal Circuit. Oral arguments were held on May 6, 2021.

A litigation against Enfora, Inc. (1:17-cv-02769-TWT, pending in the Northern District of Georgia (Atlanta)) was concluded September 3, 2019, which included the '278 patent.

The Patent Owner is also asserting the '278 patent in a pending litigation against Firstech, LLC in the Western District of Washington (2:20-cv-01344).

B. Related Reexaminations

As in this fifth reexamination, the Requester and CalAmp have filed follow-on reexamination requests against three other patents of the Patent Owner. This is the list of the other reexaminations and related statuses:

U.S. Patent No. **6,756,885** (expired August 22, 2016) Reexamination 90/013,741 resulting in Reexamination Certificate August 1, 2017.

U.S. Patent No. **6,756,885** (expired August 22, 2016)
Reexamination 90/014,038 resulting in Reexamination Certificate October 25, 2019.

U.S. Patent No. **6,346,876** (expired August 22, 2016)
Reexamination 90/013,659 resulting in Reexamination Certificate September 1, 2017.

U.S. Patent No. **6,346,876** (expired August 22, 2016)
Reexamination 90/014,122 resulting in Reexamination Certificate March 23, 2020.

U.S. Patent No. **7,671,727**
Reexamination 90/013,832 resulting in Reexamination Certificate August 1, 2017.

U.S. Patent No. **7,671,727**
Reexamination 90/014,121 in Reexamination Certificate May 29, 2020, canceling all claims.

U.S. Patent No. **8,032,278** (unexpired)
Reexamination 90/013,587 resulting in Reexamination Certificate December 28, 2016.

U.S. Patent No. **8,032,278** (unexpired)
Reexamination 90/013,851 resulting in Reexamination Certificate February 6, 2019.

U.S. Patent No. **8,032,278** (unexpired)
Reexamination 90/014,309 resulting in Reexamination Certificate January 8, 2020.

U.S. Patent No. **8,032,278** (unexpired)
Reexamination 90/014,419, request for reexamination was denied, Innova filed a petition challenging the determination of no substantial new question of patentability on February 25, 2020.

The Patent Owner submits that the Requester's and CalAmp's duplicative and harassing efforts are improper. The Requester and CalAmp, having failed in their initial round of *ex parte* reexamination requests for the litigated patents, are now on to round five.

The Patent Owner submits that such sequential/serial requests for *ex parte* reexamination are a waste of USPTO resources. The Patent Owner submits that the Requester is abusing patent office procedures in a fashion that is fundamentally unfair to the Patent Owner.

C. The Request for Reexamination Included Misleading Information

The request for *ex parte* reexamination of the '278 patent for the present reexamination is based upon so-called recently identified U.S. Patent No. 6,611,740 to Lowrey et al. This is the second request filed by attorneys for Innova. The first request (denied) having been filed on December 16, 2019. Innova's customer, CalAmp, directly filed three of its own serial reexamination requests on: (1) September 14, 2015; (2)

October 28, 2016; and (3) May 24, 2019. The litigation sparking this series of reexamination requests was filed against CalAmp on December 20, 2013 as noted above.

On pages 1-2 of the second request (fifth in the series), Requester's attorney states: "**[r]ecently**, additional prior art that was not previously considered by the United States Patent and Trademark Office ("USPTO") **has been identified** that is believed to raise a substantial new question of patentability." (Emphasis Added).

At a minimum, this language is misleading. Indeed, seventeen Innova patents cite this same reference, and predate the present reexamination request and the first Innova reexamination request. The "recently identified" Lowrey et al. patent **was cited in cases personally prosecuted by the attorney for the Requester**, see, e.g., U.S. Patent Nos. 10,643,403 (filed September 30, 2015 and issued May 5, 2020); 10,640,060 (filed March 8, 2017 and issued May 5, 2020); 10,462,225 (filed August 25, 2017 and issued October 29, 2019); and 10,163,281 (filed January 12, 2017 and issued December 25, 2018).

The Patent Owner notified the Requester of this misleading information in a communication dated March 5, 2021 (Exhibit 4) encouraging Requester to update the Patent Office regarding the "recently identified" reference. Requester responded to the Patent Owner, but chose not to advise the Patent Office despite this clear showing of repeated harassment of the Patent Owner. A copy of the Requester's response is attached as Exhibit 5.

The Patent Owner submits that the serial harassment of Patent Owner is evident and respectfully requests the Patent

Office to confirm patentability of the rejected claims based on this reason alone.

D. The Request for Reexamination Should Not Have Been Granted

The Patent Owner submits that the present *ex parte* reexamination should not have been granted. As noted above, the present fifth reexamination request of the '278 patent is representative of serial and duplicative harassment of the Patent Owner by the Requester (Supplier of CalAmp) and CalAmp.

Indeed, the one consistent beat throughout the multiple requests of reexamination is the formula of combining a tracker prior art reference with a secondary reference in an attempt to provide the multi-vehicle compatibility. The Requester has used this same formula again in the present reexamination.

Moreover, as noted hereinabove, the Requester has utilized the Lowrey et al. prior art reference similarly to the prior four failed prior requests for *ex parte* reexamination filed against the '278 patent. The Patent Owner submits that the USPTO should not have granted the present request since it is part of long standing pattern of duplicative harassment by CalAmp and its supplier, the Requester.

II. The Pending Claims

The claimed invention, as recited in independent Claim 1, for example, is directed to a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit comprises a vehicle position determining device, a

wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The multi-vehicle compatible tracking unit comprises a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

Independent Claims 13 (patentability already confirmed) and 18 are directed to related multi-vehicle compatible vehicle tracking units. Independent Claim 13 recites that the downloading interface includes a connector for temporary connection to a downloading device. Independent Claim 18 recites that the downloading interface includes a wireless receiver for temporary connection to a downloading device.

III. The Prior Art Rejections Are In Error And The Claims Are Patentable

A. Introduction

The Requester argued substantial new questions of patentability for the claims of the '278 patent on multiple grounds. In particular, Requester argued Claims 1, 2 and 4-22 as being anticipated by Lowrey et al.

The Examiner correctly recognized that Claims 1, 2 and 4-22 are not anticipated by Lowrey et al.

Requester also argued that Claims 1-22 are obvious over Lowrey et al. The Examiner correctly confirmed the patentability of Claims 2-3 and 12-17 despite Requester's arguments.

Nevertheless, in the Office Action, the Examiner took the position that Claims 1, 4-11 and 18-22 are unpatentable over the combination of Lowrey et al. and Lightner et al.

B. Lowrey et al. and Lightener et al. Fail to Disclose Each and Every Feature of the Claimed Invention

Lowrey et al., like much of the prior art repeatedly considered in previous reexams, discloses an internet-based vehicle-diagnostic system including a wireless appliance in electrical contact with an in-vehicle computer and that can report position date from a GPS device. (See Figure 1, reproduced below).

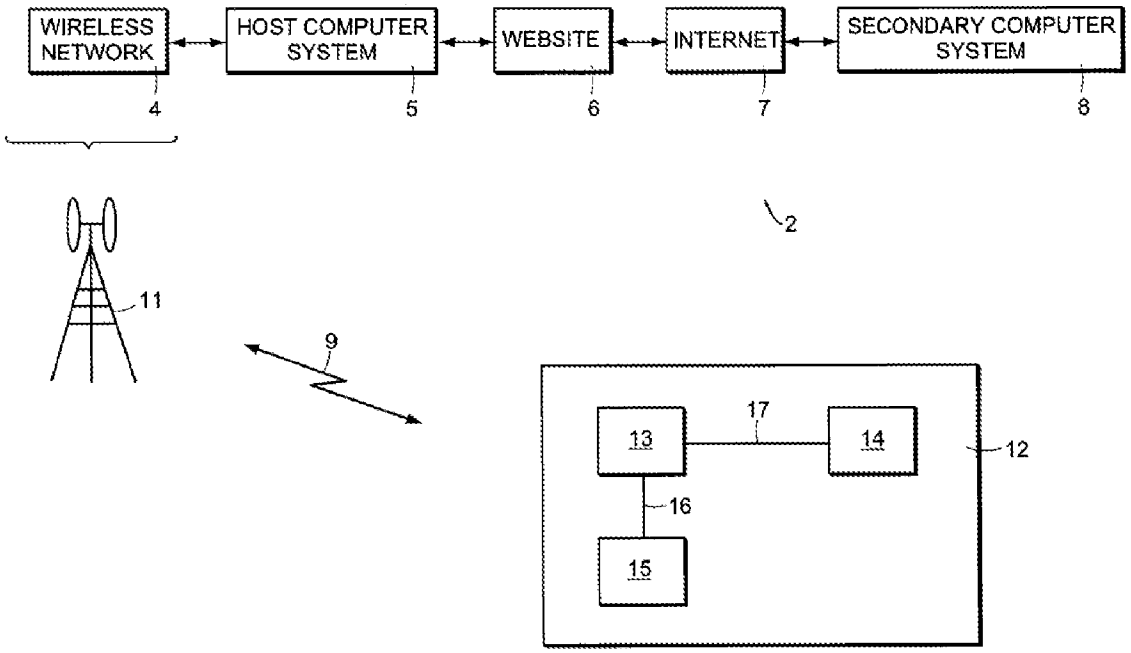


Figure 1 of Lowrey et al.

With respect to independent Claims 1 and 18, the Patent Owner respectfully submits that Lowrey et al. fails to disclose or fairly suggest the claimed features of:

> said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and
>
> a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

Rather, Lowrey et al. is very similar in disclosure to the respective primary references applied in the prior four *ex parte* reexaminations of the '278 patent. In short, the typical

formula includes combining a vehicle tracker prior art reference with a secondary reference in an attempt to provide the multi-vehicle compatibility.

In the first *ex parte* reexamination of the '278 patent, CalAmp failed in its attempt to invalidate the claims by applying Suman et al. and Spaur et al. (Cell Port Labs patent), and Beckert et al.

In the second *ex parte* reexamination of the '278 patent, CalAmp failed in its attempt to invalidate the claims by applying Chou et al.

In the third *ex parte* reexamination of the '278 patent, CalAmp failed in its attempt to invalidate the claims by applying a Cell Port Labs Press Release, Spelt et al., and the SAE HS-3000 Manuals, and separately over Jones et al. and the SAE HS-3000 Manuals.

In the fourth *ex parte* reexamination of the '278 patent, CalAmp's supplier, the Requester, failed in its attempt to raise a substantial new question of patentability by applying Flick '551, Brinkmeyer, Monroe, Drori, Space Daily Trimble, Mateja, and Holusha.

In the present reexamination, the Examiner correctly notes that Lowrey et al. fails to disclose or fairly suggest the multi-vehicle features of the claims. In particular, the Examiner noted: "[t]o the extent that Lowrey does not explicitly teach additional details of how the diagnostic data is vehicle-specific, Lightner discloses these additional details at col. 6, lines 26-34 [reproduced portion of Lightner omitted]." (Office Action 6-21-2021, page 14).

The cited portion of the secondary reference to

Lightner et al. recites:

> [d]epending on the make and model of the vehicle, the data packet can contain hundreds of datum that describe, e.g.: i) basic properties of the power train (e.g., emission levels, fuel-System Status, engine temperature, Speed and odometer readings, anti-lock brake Status, RPMs, fuel and intake manifold pressure); and ii) manufacturer-specific information (e.g., status of the door locks, airbags, and entertainment center). In total, for most vehicles there are typically more than 300 datum that can be included in the data packet. (Col. 6, lines 26-35).

As noted during the telephonic interview, the Patent Owner respectfully submits that the claimed invention is patentable over the proposed combination of Lowrey et al. and Lightener et al. Firstly, the applied combination of prior art references fails to disclose or fairly suggest: "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles", as recited in independent Claim 1, for example. Rather, the primary reference to Lowrey et al. discloses a wireless appliance coupled to the OBD port of the vehicle. The wireless appliance "includes a data-collection component that, in turn, includes a microcontroller that has Software and a data-collection schema loaded in the microcontroller's memory. The Schema is essentially a map that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory." (Col. 6,

lines 56-62; and *see* Exhibit 1, paragraphs 15-18).

Using the map of the schema, the wireless appliance grabs certain packets from the vehicle network and transmits the packets to the remote host computer system. The host computer system then "analyzes the data packet using a map that corresponds to the Schema to generate a data set." (Col. 7, lines 4-6). Once transmitted, a technician reviews the transmitted packets in an attempt to diagnose the problem with the vehicle. If the technician decides more data is needed, the "technician uses the web site to Select a new Schema (Step 32) and then sends an incoming data packet that includes a new Schema over the wireless network to the wireless appliance included in the vehicle being diagnosed." (Col. 7, lines 22-25; and *see* Exhibit 1, paragraphs 15-18).

The primary reference to Lowrey et al. notes that: "[t]he above-described system is designed to work with multiple vehicles and multiple secondary computer systems, each connected to the web site through the Internet. ... The system 20 operates similarly as that described above". (Col. 7, lines 44-49). In other words, after the technician reviews processing and uploads a new schema, the packets are simply grabbed from the respective vehicles and sent to the host computer system for analysis.

Secondly, the applied combination of prior art references fails to disclose or fairly suggest the: "downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller", as recited in independent Claim 1, for example. As correctly recognized by the Examiner, the '278 patent notes that the "enabling data may

be the vehicle device code or codes, an instruction to select a code or codes from among those already stored, or the data or sequence to allow the controller 111 to generate the vehicle device code or codes, for example." (Col. 24, lines 8-13; and *see* Exhibit 1, paragraphs 19-21).

Again, the teachings of the primary reference to Lowrey et al. are limited to the schema. The primary reference to Lowrey et al. describes the schema as "essentially a map that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory." (Col. 6, lines 59-62). The schema indicates where and when to grab packets, which are sent to the remotely located host computer system. The Patent Owner submits that the limited teachings of the primary reference to Lowrey et al. do not meet the claimed enabling data. Rather, the schema does not provide either a device code, an instruction to select a code or codes from among those already stored, or a data or sequence to allow the controller to generate the vehicle device code or codes. In addition, Patent Owner submits that the secondary reference to Lightener et al. also fails to make up for the deficiencies of the primary reference to Lowrey et al. (*See* Exhibit 1, paragraphs 19-22).

B. Evidence of Secondary Considerations and Declaration Evidence

1. Introduction

To rebut the Examiner's obviousness rejections, the Patent Owner offers the following secondary considerations supporting non-obviousness. This evidence was presented and

considered favorably by the Patent Trial and Appeal Board (PTAB) in the second *ex parte* reexamination of the '278 patent. The PTAB stated that "we add that Appellant's evidence of secondary considerations of non-obviousness, including licensing, commercial success, copying by others, customer need, and the limited value for accused products without the invention, only further weighs in favor of Appellant." (Decision on Appeal, Application Serial No. 90/013,851, page 14).

As noted by the Federal Circuit in *Mintz v. Dietz*, 679 F.3d 1372 (Fed. Cir. 2012), the following helpful guidance is provided with respect to the objective criteria of secondary considerations:

> [t]hese objective criteria thus help turn back the clock and place the claims in the context that led to their invention. Technical advance, like much of human endeavor, often occurs through incremental steps toward greater goals. These marginal advances in retrospect may seem deceptively simple, particularly when retracing the path already blazed by the inventor. For these reasons, this court requires consideration of these objective indicia because they "provide objective evidence of how the patented device is viewed in the marketplace, by those directly interested in the product." (*Id.* at 1378; emphasis added).

Mintz further provides:

> [i]ndeed, where the invention is less technologically complex, the need for Graham findings can be important to ward against falling into the forbidden use of hindsight. Simply because the technology can be easily understood does not mean that it will satisfy the legal standard of obviousness. In fact,

> objective consideration of simple technology is often the most difficult because, once the problem and solution appear together in the patent disclosure, the advance seems self-evident. Instead, the proper analysis requires a form of amnesia that "forgets" the invention and analyzes the prior art and understanding of the problem at the date of invention.
> (*Id.* at 1379; emphasis added).

The Patent Owner sets forth below evidence of licensing, commercial success, copying by others, customer need, and limited value of products without the claimed invention.

2. Licensing

The '278 patent in Claim 1, for example, is directed to a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit comprises a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The multi-vehicle compatible tracking unit comprises a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

The Patent Owner points to the following excerpt from the First Jury Verdict form (Exhibit 2) from the related litigation with establishing the merits of the claimed invention and the licenses:

> 5. **Which of the following factors that tend to indicate nonobviousness, if any, has been established by the evidence with respect to the claimed invention (write the word "yes" in the blank below to any question that you answer "yes" to):**
>
> YES **Did others accept licenses under patents because of the merits of the claimed invention?**

In other words, after observing all of the testimony of the witnesses, reviewing the exhibits presented during trial, and applying the Court's Jury Instructions, the Jury determined that the licenses were based on the merits of the claimed invention, including the '278 patent.

As noted in Mr. McAlexander's Declaration (Exhibit 1, paragraph 24(b)), the Patent Owner has received in excess of $70 million in licensing revenue, from the '278 patent and the other asserted patents in the related litigation.

Mr. McAlexander also notes that the '278 patent is one of three patents asserted in the related litigation providing features for multi-vehicle compatibility; and, multi-vehicle compatibility is important for the overall licensing program of the Patent Owner. (Exhibit 1, paragraph 24(c)).

Mr. McAlexander cites to CalAmps's own employees' trial testimony for the propositions that the multi-vehicle compatibility provides for simplified installation and avoids

the need to have multiple SKUs (stock keeping units). (Exhibit 1, paragraph 24(e)). Further details regarding the "customer need" and "limited value" without the multi-vehicle compatibility are provided below.

3. Commercial Success

The Patent Owner respectfully points to the following excerpt from the First Jury Verdict form from the related litigation that provides evidence of commercial success due to the merits of the claimed invention:

5. Which of the following factors that tend to indicate nonobviousness, if any, has been established by the evidence with respect to the claimed invention (write the word "yes" in the blank below to any question that you answer "yes" to):

yes — Were accused products covered by the claim commercially successful due to the merits of the claimed invention rather than due to advertising, promotion, salesmanship, or features of the product other than those found in the claim?

Furthermore, the Jury also determined that the features of the '278 patent were included in the infringing devices of the Requester's customer (CalAmp) (in both trials). The Jury determined that asserted claims of the '278 patent were infringed. The Jury Verdict evidences that products supplied to CalAmp by the Requester correspond to the claimed invention.

This is the pertinent portion of the Second Jury Verdict form:

	LMU-3000	LMU-3030	LMU-3050	VPOD	VPOD2
Claim 8	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 11	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 12	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No		
Claim 13	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 14	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 16	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 18	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 19	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No
Claim 21	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No

As noted in Mr. McAlexander's Declaration, CalAmp was found to infringe with 917,223 units of the accused products. (Exhibit 1, paragraph 24(f)).

Mr. McAlexander also notes that the '278 patent is one of three patents asserted in the related litigation providing features for multi-vehicle compatibility; and, multi-vehicle compatibility is important for the overall licensing program of the Patent Owner. Mr. McAlexander cites to CalAmp's (customer of Requester) own employees' trial testimony for the propositions that the multi-vehicle compatibility provides for simplified installation and avoids the need to have multiple SKUs (stock keeping units). (Exhibit 1, paragraph 24(c) and 24(e)).

4. Copying by Others

Once again, the Patent Owner points to the following excerpt from the First Jury Verdict form from the related litigation that establishes copying:

5. **Which of the following factors that tend to indicate nonobviousness, if any, has been established by the evidence with respect to the claimed invention (write the word "yes" in the blank below to any question that you answer "yes" to):**

YES **Did others copy the claimed invention?**

The Jury's finding of infringement of the asserted claims of the '278 patent (provided above) establishes that Requester's products supplied to CalAmp correspond to the claimed invention.

5. Customer Need

The Patent Owner directs the Examiner's attention first to the Court's determination in the first trial of the related litigation. In its Final Order, the Court provides:

> Rather than take a license, and choosing not to design around Omega's patents, CalAmp elected to sell infringing products and continues to do so to this day. CalAmp's motivation to engage in this behavior is obvious: their customers wanted this technology and CalAmp [Supplied by the Requester] wanted to provide it. (Exhibit 6, Final Order, page 19; Emphasis added.)

The McAlexander Declaration provides that the multi-vehicle accused products in the CalAmp litigation were developed because of "customer need" for a simple installation that did not require splicing of wires. (Exhibit 1, paragraph 24(i)). Mr. McAlexander's position is supported by the following testimony of Mr. Stephen Hall and Mr. Peter Hergesheimer, both CalAmp employees, as follows:

Testimony of CalAmp Employee Stephen Hall

Q. Can you introduce yourself for the record

A. Yes. My name is Stephen Hall. The correct spelling is S-t-e-p-h-e-n.

Q. All right, sir. And by whom are you employed?

A. I'm an employee of CalAmp Corporation.

Q. Do you have a title at CalAmp?

A. My official title is director of system

engineering and technology.

Q. What does it mean to be the director of system engineering and technology at CalAmp?

A. My role is to look at the needs of our customer and market and to match them up with various technologies that are going on in the industry component level and otherwise to make sure that we have an appropriate solution. (Stephen Hall deposition, 6:8-22).

Q. All right, sir. I'm going to hand you what was previously marked as Exhibit 1 to the deposition of Mr. Hergesheimer. Can you tell me what Exhibit 1 is?

A. I'm looking at a CalAmp datasheet for the LMU-3000 product.

Q. And were you involved in the development of the LMU-3000?

A. I was.

Q. And what was your role in developing the LMU-3000?

A. My role on the 3000 was at the CRS level. I provided the requirements document for that. The various blocks within it were predefined by our existing partnerships, and so I didn't do a lot of component selection type of work, so it was really limited just to the CRS document.

Q. Was there a particular market need that you identified leading up to the creation of the CRS for the LMU-3000?

A. The 3000 was driven by a general market need that we heard from a number of customers. The primary interest was coming from a need for a *simple installation type of solution* and the opportunity to enhance the capability of the product that we could offer with certain data items coming off of the vehicle bus. (Stephen Hall deposition, 6:8-22; and 40:20-41:12; Emphasis added).

Testimony of CalAmp Employee Peter Hergesheimer

Q. You have been designated as a representative on whether CalAmp has willfully or deliberately infringed in this case. Beyond knowing about the devices and how they operate, do you know anything about CalAmp's assertions that its actions are not willful or deliberate?

A. I would say from my experience in the development of these devices that there's no willful infringement.

Q. And -- and what's that based on?

A. That's based on knowing where the -- the technology that we use came from and the fact that these were sales-driven requests and somebody had a problem to solve and we went about solving the problem.

Q. What do you mean sales-driven request?

A. Well, typically our -- typically we have a customer that says hey, I would like to do this particular -- have a product that has this feature and so CalAmp goes about designing that product.

Q. So the LMU3000 development was the result of – or was -- was undertaken because customers expressed a demand to CalAmp for these products?

A. I -- I believe that's the case. I can't say specifically for these, but that's in general how our product development works. (Peter Hergesheimer deposition, 40:6 – 41:3).

6. Limited Value for Products Without the Invention

The Examiner's attention is directed to the section above regarding Commercial Success. The Patent Owner asserts that the accused products as covered by the '278 patent would have "limited value" if it were not for multi-vehicle compatibility. CalAmp's own employee, Peter Hergesheimer, testified as follows:

Testimony of CalAmp Employee Peter Hergesheimer

Q. Can you state your name for the record.

A. Peter Hergesheimer.

Q. All right. Sir, and by whom are you employed?

A. CalAmp.

Q. Okay. And what's your position at CalAmp?

A. I'm the senior director of software and architecture in the MRM group. (Peter Hergesheimer deposition, 6:2-8).

Q. Do you know whether the LMU3000 would have any value if it didn't work on multiple vehicles?

A. It would have a limited value.

Q. You would need separate skus for each vehicle; right?

A. That would be one way of solving that problem.

Q. Is there any other way?

A. Different skus could be different software got loaded onto the same sku.

Q. Okay. So you can -- whether you have a different sku or not, you would need to -- if -- if the LMU3000 was vehicle specific, it would need software for each vehicle in which it was -- separate software for each vehicle in which it was designed to work?

A. Each vehicle type I would guess, yes.

Q. And that would be a more expensive exercise, I would think, from CalAmp's perspective?

A. Yes.

Q. And less desirable than the -- than the option

you have now where the LMU is able to service multiple vehicles?

A. Yes, even though it is still pretty painful.

(Peter Hergesheimer deposition, 46:25 – 47:19; Emphasis added).

In view of the evidence of secondary considerations the Patent Owner submits that any obviousness type rejection of the pending claims is rebutted.

CONCLUSION

In view of the arguments presented above and the evidence submitted herewith, it is submitted that all of the claims are patentable. Accordingly, a Reexamination Certificate confirming all claims as patentable is respectfully requested in due course. Should any minor informalities need to be addressed, the Examiner is encouraged to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized to charge or credit any discrepancies in fee amounts to Deposit Account No. 01-0484.

Respectfully submitted,

/JACK G. ABID/

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Attorney for the Patent Owner

CERTIFICATE OF SERVICE

Certificate of Service in compliance with 37 C.F.R. §1.530(c)

Pursuant to 37 C.F.R. §§1.530(c), 1.248, I hereby certify that on August 23, 2021, a complete copy of this Request is being served via First Class U.S. Mail upon Third Party Requester at the correspondence address as shown in PAIR:

Mark B. Garred
STETINA BRUNDA GARRED & BRUCKER
75 Enterprise, Suite 250
Aliso Viejo, California 92656

Respectfully submitted,

/JACK GEORGE ABID/

_____
Jack G. Abid

Facsimile

Note:

Agenda for Interview for REEXAMINATION 90/014,675 (8,032,278)

Regards,
Jack Abid

To:	***From:*** Jack Abid
Phone:	***Phone:*** (407) 992-9492 * 102
Fax: (571) 273-4119	***Fax:*** 14079929492
Date: 07/20/2021	
Pages: 5	

REEXAMINATION 90/014,675 (8,032,278)
Interview Outline (July 22, 2021 @ 2:30 PM EST)

I. Participants

Examiners:
(1) Luke S. Wassum
(2)
(3)

Patent Owner Attendees:
Chris Regan (34,906)
Jack Abid (58,237)

II. Background

Patent Owner:
Omega Patents LLC – Ken Flick
150+ patents
Omega Research & Development sold to Audiovox

Requester Innova, and the CalAmp Corporation
Requester Innova is a supplier of the infringing product to the CalAmp Corporation. On December 7, 2020, CalAmp wrongly filed a change of POA for the Innova fourth *ex parte* reexamination. The Patent Owner petitioned to have this erroneous filing expunged, which was granted on January 11, 2021.

Related Omega v. CalAmp Litigation:
Filed – 12/20/13
Actual trial date: 2/16/16 to 2/24/16 (**First Reexamination filed 10/28/16)**
Verdict: all asserted claims valid, infringed, secondary considerations found
Final Order issued 4-5-17
Final Judgment issued 4/24/17
Requester's motion to vacate judgment denied 9/22/17
Appeal to the Federal Circuit 12/ 19/2017
Decision 4/8/2019, AFFIRMED-IN-PART, REVERSED-IN-PART, VACATED-IN-PART, AND REMANDED
Second trial (validity was not challenged), verdict 9/30/2019
Second Appeal to the Federal Circuit filed 5/14/2020
Oral Argument held 5/6/2021

Prior 4 Reexaminations on '278 Patent filed by CalAmp and Innova
CalAmp
First Reexamination Certificate confirming patentability of all claims issued December 28, 2016.
Second Reexamination Certificate confirming patentability of all claims issued February 6, 2019.
Third Reexamination Certificate confirming patentability of all claims issued January 8, 2020.

Innova
Fourth Ex Parte Reexamination Request was denied January 27, 2020, and Innova filed a petition challenging the determination of no substantial new question of patentability on February 25, 2020.

Other Related Reexaminations (Ex Parte Reexamination Certificates issued in all)

(1) U.S. Patent No. 6,756,885; Reexamination 90/013,741 – filed April 28, 2016. Ex Parte Reexamination Certificate issued August 1, 2017.
(2) U.S. Patent No. 6,756,885; Reexamination 90/014,038 – filed October 26, 2017. Ex Parte Reexamination Certificate issued October 25, 2019.
(3) U.S. Patent No. 6,346,876; Reexamination 90/013,659 – filed December 11, 2015. Ex Parte Reexamination Certificate issued September 1, 2017.
(4) U.S. Patent No. 6,346,876; Reexamination 90/014,122 – filed April 19, 2018. Ex Parte Reexamination Certificate issued March 23, 2020.
(5) U.S. Patent No. 7,671,727: Reexamination 90/013,832 – filed October 12, 2016. Ex Parte Reexamination Certificate issued August 1, 2017.
(6) U.S. Patent No. 7,671,727: Reexamination 90/014,121 – filed April 10, 2018. Ex Parte Reexamination Certificate issued May 29, 2020.

III. The '278 Patent

'278 Patent Background:
A number of patents disclose various security and control systems that address data bus interoperability. For example, U.S. Pat. No. 5,719,551, assigned to Omega Patents, LLC, the assignee of the present invention, discloses a vehicle security system for a vehicle including a data bus connecting a plurality of vehicle devices. A signal enabling circuit enables the alarm controller to operate using a set of desired signals selected from a plurality of possible sets for different vehicles. U.S. Pat. No. 6,011,460, assigned to Omega Patents, LLC, discloses a similar system where the set of desired signals from the plurality of different sets of signals for different vehicles is obtained, such as by connection and communication with a downloading device. Additionally, U.S. Pat. No. 6,756,885, also assigned to Omega Patents, LLC, discloses a multi-vehicle control system whereby a multi-vehicle compatible controller stores a set of device codes for a given vehicle device for a plurality of different vehicles. Device codes are read from the data communications bus, and a match between a read device code and the stored device codes is determined to provide compatibility with different vehicles. (Col. 2, lines 17-37)

Unfortunately, such advanced techniques for dealing with multiple device codes for a vehicle having a data communications bus have not yet been developed for vehicle tracking units. (Col. 2, lines 38-41).

'278 Patent Detailed Description:
The multi-vehicle compatible controller 111 is coupled to the vehicle data bus 122 for communication thereover with a vehicle device 121. The controller 111 illustratively includes a central processing unit (CPU) 126 or other logic circuitry which is connected to a clock signal generator 124, a memory 125, and input/output circuitry 127 to interface with the vehicle device

121 using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. (Col. 23, lines 59-67).

Further aspects of interfacing with a vehicle data communications bus are described in U.S. Pat. Nos. 5,719,551 and 6,011,460 assigned to the assignee of the present invention, the entire contents of which are incorporated herein by reference. (Col. 22, lines 3-7).

From '551:
The security system 10 further preferably comprises desired signal enabling means 17 for enabling the alarm controller 10 to operate using a desired set of signals for a desired vehicle from among a plurality of possible sets of signals for different vehicles. As would be readily understood by those skilled in the art, the term different vehicles may include vehicles from different manufacturers, different models, or even different trim levels of the same make and model. (Col. 6, lines 33-43).

'278 Patent Claim 1:

1. A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

IV. Innova has continued the CalAmp strategy of Sequential and Harassing Requests for Reexamination

The present reexamination was filed February 16, 2021, and the first failed Innova request for *ex parte* reexamination was filed December 16, 2019. In the request for the present *ex parte* reexamination, Innova made misleading statements with regards to the nature of the prior art.

On pages 1-2 of the request, Innova stated: "[r]ecently, additional prior art that was not previously considered by the United States Patent and Trademark Office ("USPTO") has been identified that is believed to raise a substantial new question of patentability."

This language is misleading. Indeed, seventeen Innova Electronics Corporation patents cite this same reference, and predate the present reexamination request and the first reexamination request. The "recently identified" Lowrey et al. patent was cited in cases personally prosecuted by the attorney who signed the present request, see, e.g., U.S. Patent Nos. 10,643,403 (filed September 30, 2015 and issued May 5, 2020); 10,640,060 (filed March 8, 2017 and issued May

5, 2020); 10,462,225 (filed August 25, 2017 and issued October 29, 2019); and 10,163,281 (filed January 12, 2017 and issued December 25, 2018).

V. The Claims are Patentable over the combination of Lowrey et al. and Lightner et al

The prior art is cumulative to the prior art applied in prior reexaminations

Lowrey et al., like much of the prior art repeatedly considered, discloses an internet-based vehicle-diagnostic system including a wireless appliance in electrical contact with an in-vehicle computer and that can report position date from a GPS device. With respect to independent Claims 1 and 18, Patent Owner respectfully submits that Lowrey et al. fails to disclose the claimed features of:

> said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and
>
> a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

Lightner et al. is being similarly applied to the secondary references of the prior 4 *ex parte* reexaminations.

Secondary Considerations of non-obviousness

Licensing
Commercial success
Copying by others
Customer need
Limited value without the invention

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
90/014,675	**07/28/2021 11:15:08 AM ET**	**CAAMP-001X**

Title of Invention

VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS

Application Information

APPLICATION TYPE	Utility / ex parte reexam	PATENT #	8032278
CONFIRMATION #	7247	FILED BY	Sheryl Scheibe
PATENT CENTER #	60263299	FILING DATE	02/16/2021
CUSTOMER #	27975	FIRST NAMED INVENTOR	- 8032278
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Jack Abid

Documents

TOTAL DOCUMENTS: 2

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
58106cip1REX5SUMARRY.pdf	3	Applicant summary of interview with examiner	144 KB
58106cip1REX5AGENDA.pdf	5	Miscellaneous Incoming Letter	324 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
58106cip1REX5SUMARRY.pdf	8E334002CB1910CBC0BE049CE97196B521667DEF87CDC23B819F38466239F0CA2AF9F0A9C16088C57BDC4FB354B12D5D6D53820466F18C258B0CEB72D786C2BD

58106cip1REX5AGENDA.pdf 98F38ABBB1626078FDAC3737DA612997D1E7E014C908A0EF7946DAC4883E2AE293CBAC93FE01E6093DDAEA09FF7492B29EEE38A3D5669E398F789BB4C8AED7B9

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: **KENNETH E. FLICK** Request for Reexamination of **8,032,278** Control No. **90/014,675** Confirmation No. Filing Date: **2/16/2021** For: **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**	Attorney Docket No.: **(58106cip1-REX5)** Examiner: **L. WASSUM** Art Unit: **3992**

INTERVIEW SUMMARY FOR TELEPHONIC INTERVIEW OF JULY 22, 2021

EFILE

Commissioner for Patents

The Patent Owner thanks the U.S. Patent and Trademark Office and the Examiners for extending all courtesies to the Patent Owner's Representatives during the telephonic interview of July 22, 2021.

During the telephonic interview, Examiner Luke Wasssum, Examiner Stephen Ralis, and Examiner Michael Fuelling were present on behalf of the U.S. Patent and Trademark Office, and Attorneys Christopher F. Regan (Reg. No. 34,906), and Jack G. Abid (Reg. No. 58,237) were present on behalf of the Patent Owner.

The Patent Owner discussed the attached agenda with the Examiners. In particular, the Examiners confirmed that

dependent Claims 2-3 and 12-17 recite patentable subject matter. The Patent Owner also discussed the past litigation of the subject '278 patent and the related four prior *ex parte* – reexaminations. The Patent Owner also discussed the teachings of the Lowrey et al. prior art reference and potential evidence for the secondary considerations of non-obviousness. The Examiners invited the Patent Owner to submit written arguments along with evidence of secondary considerations of non-obviousness if desired.

Respectfully submitted,

/JACK G. ABID/

JACK GEORGE ABID
Reg. No. 58,237
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Attorney for the Patent Owner

In re Patent Application of:
KENNETH E. FLICK
Reexamination Control No. **90/014,675**
Filed: **2/16/2021**
_____/

CERTIFICATE OF SERVICE

Certificate of Service in compliance with 37 C.F.R. §1.530(c)

Pursuant to 37 C.F.R. §§1.530(c), 1.248, I hereby certify that on July 28, 2021, a complete copy of this Request is being served via First Class U.S. Mail upon Third Party Requester at the correspondence address as shown in PAIR:

Mark B. Garred
STETINA BRUNDA GARRED & BRUCKER
75 Enterprise, Suite 250
Aliso Viejo, California 92656

Respectfully submitted,

/JACK GEORGE ABID/

_____
Jack G. Abid

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,675	02/16/2021	8032278	CAAMP-001X	7247

27975 7590 07/27/2021

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Winter Springs, FL 32708

EXAMINER
WASSUM, LUKE S

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
07/27/2021	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. *90/014,675* .

PATENT UNDER REEXAMINATION *8032278* .

ART UNIT *3992* .

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Ex Parte Reexamination Interview Summary	Control No.	Patent Under Reexamination	
	90/014,675	8032278	
	Examiner	Art Unit	AIA (FITF) Status
	Luke S Wassum	3992	No

All participants (USPTO personnel, patent owner, patent owner's representative):

(1) Luke Wassum	(3) Attorney Jack Abid
(2) Primary Stephen J. Ralis; SPE Michael Fuelling	(4) Attorney Christopher Regan

Date of Interview: 22 July 2021

Type: a) ☑ Telephonic b) ☐ Video Conference
c) ☐ Personal (copy given to: 1) ☐ patent owner 2) ☐ patent owners representative)

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☑ No.
If Yes, brief description: _____

Agreement with respect to the claims f) ☐ was reached. g) ☑ was not reached. h) ☐ N/A.
Any other agreement(s) are set forth below under "Description of the general nature of what was agreed to..."

Claim(s) discussed: 1 .

Identification of prior art discussed: Lowrey (USPatent 6,611,740) and Lightner (USPatent 6,636,790) .

Description of the general nature of what was agreed to if an agreement was reached, or any other comments:
See Continuation Sheet .

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims patentable, if available, must be attached. Also, where no copy of the amendments that would render the claims patentable is available, a summary thereof must be attached.)

A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION MUST INCLUDE PATENT OWNER'S STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. (See MPEP § 2281). IF A RESPONSE TO THE LAST OFFICE ACTION HAS ALREADY BEEN FILED, THEN PATENT OWNER IS GIVEN **ONE MONTH** FROM THIS INTERVIEW DATE TO PROVIDE THE MANDATORY STATEMENT OF THE SUBSTANCE OF THE INTERVIEW
(37 CFR 1.560(b)). THE REQUIREMENT FOR PATENT OWNERS STATEMENT CAN NOT BE WAIVED.
EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).

/Stephen J. Ralis/ Primary Examiner, Art Unit 3992		/LUKE S WASSUM/ Primary Examiner, Art Unit 3992

cc: Requester (if third party requester)

Continuation of Description of the general nature of what was agreed to if an agreement was reached, or any other comments:

The attorneys gave a brief overview of the history of the inventor and his company, as well as a discussion of the patent at issue ('278 patent) and its prosecution history with respect to litigation and post-grant proceedings.

They also briefly discussed the features of the claimed invention, using claim 1 as exemplary.

Also briefly discussed was CalAmp and Innova, who collectively requested the five reexaminations of the ' 278 patent.

The attorneys then discussed the prior art. Specifically, they believe that the prior art applied in the instant reexamination is cumulative to the art applied in previous reexaminations, and particularly with respect to the Chou reference (USPatent 6,330,499) applied during prosecution of the second reexamination (90/013,851).

Specifically with respect to Lowrey, the attorneys do not believe that the reference's disclosure of a schema can properly be applied to the claimed vehicle device code, nor that the reference discloses a controller that is multi-vehicle compatible. The examiners noted that Lowrey discloses that its wireless appliance can be easily transferred from one vehicle to another and can be easily installed in any vehicle with an OBD-II connector , disclosures that would seem to constitute 'multi-vehicle compatible. The attormeys believe that the requirements embodied in the 'multi-vehicle compatible' limitation are not taught by Lowrey.

A formal response to the non-final Office action will be filed in due course.

Facsimile

Note:

Agenda for Interview for REEXAMINATION 90/014,675 (8,032,278)

Regards,
Jack Abid

To:	***From:*** Jack Abid
Phone:	***Phone:*** (407) 992-9492 * 102
Fax: (571) 273-4119	***Fax:*** 14079929492
Date: 07/20/2021	
Pages: 5	

REEXAMINATION 90/014,675 (8,032,278)
Interview Outline (July 22, 2021 @ 2:30 PM EST)

I. Participants

Examiners:
(1) Luke S. Wassum
(2)
(3)

Patent Owner Attendees:
Chris Regan (34,906)
Jack Abid (58,237)

II. Background

Patent Owner:
Omega Patents LLC – Ken Flick
150+ patents
Omega Research & Development sold to Audiovox

Requester Innova, and the CalAmp Corporation
Requester Innova is a supplier of the infringing product to the CalAmp Corporation. On December 7, 2020, CalAmp wrongly filed a change of POA for the Innova fourth *ex parte* reexamination. The Patent Owner petitioned to have this erroneous filing expunged, which was granted on January 11, 2021.

Related Omega v. CalAmp Litigation:
Filed – 12/20/13
Actual trial date: 2/16/16 to 2/24/16 **(First Reexamination filed 10/28/16)**
Verdict: all asserted claims valid, infringed, secondary considerations found
Final Order issued 4-5-17
Final Judgment issued 4/24/17
Requester's motion to vacate judgment denied 9/22/17
Appeal to the Federal Circuit 12/ 19/2017
Decision 4/8/2019, AFFIRMED-IN-PART, REVERSED-IN-PART, VACATED-IN-PART, AND REMANDED
Second trial (validity was not challenged), verdict 9/30/2019
Second Appeal to the Federal Circuit filed 5/14/2020
Oral Argument held 5/6/2021

Prior 4 Reexaminations on '278 Patent filed by CalAmp and Innova
CalAmp
First Reexamination Certificate confirming patentability of all claims issued December 28, 2016.
Second Reexamination Certificate confirming patentability of all claims issued February 6, 2019.
Third Reexamination Certificate confirming patentability of all claims issued January 8, 2020.

Innova
Fourth Ex Parte Reexamination Request was denied January 27, 2020, and Innova filed a petition challenging the determination of no substantial new question of patentability on February 25, 2020.

Other Related Reexaminations (Ex Parte Reexamination Certificates issued in all)

(1) U.S. Patent No. 6,756,885; Reexamination 90/013,741 – filed April 28, 2016. Ex Parte Reexamination Certificate issued August 1, 2017.
(2) U.S. Patent No. 6,756,885; Reexamination 90/014,038 – filed October 26, 2017. Ex Parte Reexamination Certificate issued October 25, 2019.
(3) U.S. Patent No. 6,346,876; Reexamination 90/013,659 – filed December 11, 2015. Ex Parte Reexamination Certificate issued September 1, 2017.
(4) U.S. Patent No. 6,346,876; Reexamination 90/014,122 – filed April 19, 2018. Ex Parte Reexamination Certificate issued March 23, 2020.
(5) U.S. Patent No. 7,671,727: Reexamination 90/013,832 – filed October 12, 2016. Ex Parte Reexamination Certificate issued August 1, 2017.
(6) U.S. Patent No. 7,671,727: Reexamination 90/014,121 – filed April 10, 2018. Ex Parte Reexamination Certificate issued May 29, 2020.

III. The '278 Patent

'278 Patent Background:
A number of patents disclose various security and control systems that address data bus interoperability. For example, U.S. Pat. No. 5,719,551, assigned to Omega Patents, LLC, the assignee of the present invention, discloses a vehicle security system for a vehicle including a data bus connecting a plurality of vehicle devices. A signal enabling circuit enables the alarm controller to operate using a set of desired signals selected from a plurality of possible sets for different vehicles. U.S. Pat. No. 6,011,460, assigned to Omega Patents, LLC, discloses a similar system where the set of desired signals from the plurality of different sets of signals for different vehicles is obtained, such as by connection and communication with a downloading device. Additionally, U.S. Pat. No. 6,756,885, also assigned to Omega Patents, LLC, discloses a multi-vehicle control system whereby a multi-vehicle compatible controller stores a set of device codes for a given vehicle device for a plurality of different vehicles. Device codes are read from the data communications bus, and a match between a read device code and the stored device codes is determined to provide compatibility with different vehicles. (Col. 2, lines 17-37)

Unfortunately, such advanced techniques for dealing with multiple device codes for a vehicle having a data communications bus have not yet been developed for vehicle tracking units. (Col. 2, lines 38-41).

'278 Patent Detailed Description:
The multi-vehicle compatible controller 111 is coupled to the vehicle data bus 122 for communication thereover with a vehicle device 121. The controller 111 illustratively includes a central processing unit (CPU) 126 or other logic circuitry which is connected to a clock signal generator 124, a memory 125, and input/output circuitry 127 to interface with the vehicle device

121 using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. (Col. 23, lines 59-67).

Further aspects of interfacing with a vehicle data communications bus are described in U.S. Pat. Nos. 5,719,551 and 6,011,460 assigned to the assignee of the present invention, the entire contents of which are incorporated herein by reference. (Col. 22, lines 3-7).

From '551:
The security system 10 further preferably comprises desired signal enabling means 17 for enabling the alarm controller 10 to operate using a desired set of signals for a desired vehicle from among a plurality of possible sets of signals for different vehicles. As would be readily understood by those skilled in the art, the term different vehicles may include vehicles from different manufacturers, different models, or even different trim levels of the same make and model. (Col. 6, lines 33-43).

'278 Patent Claim 1:

1. A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

IV. Innova has continued the CalAmp strategy of Sequential and Harassing Requests for Reexamination

The present reexamination was filed February 16, 2021, and the first failed Innova request for *ex parte* reexamination was filed December 16, 2019. In the request for the present *ex parte* reexamination, Innova made misleading statements with regards to the nature of the prior art.

On pages 1-2 of the request, Innova stated: "[r]ecently, additional prior art that was not previously considered by the United States Patent and Trademark Office ("USPTO") has been identified that is believed to raise a substantial new question of patentability."

This language is misleading. Indeed, seventeen Innova Electronics Corporation patents cite this same reference, and predate the present reexamination request and the first reexamination request. The "recently identified" Lowrey et al. patent was cited in cases personally prosecuted by the attorney who signed the present request, see, e.g., U.S. Patent Nos. 10,643,403 (filed September 30, 2015 and issued May 5, 2020); 10,640,060 (filed March 8, 2017 and issued May

5, 2020); 10,462,225 (filed August 25, 2017 and issued October 29, 2019); and 10,163,281 (filed January 12, 2017 and issued December 25, 2018).

V. The Claims are Patentable over the combination of Lowrey et al. and Lightner et al

The prior art is cumulative to the prior art applied in prior reexaminations

Lowrey et al., like much of the prior art repeatedly considered, discloses an internet-based vehicle-diagnostic system including a wireless appliance in electrical contact with an in-vehicle computer and that can report position date from a GPS device. With respect to independent Claims 1 and 18, Patent Owner respectfully submits that Lowrey et al. fails to disclose the claimed features of:

> said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and
>
> a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

Lightner et al. is being similarly applied to the secondary references of the prior 4 *ex parte* reexaminations.

Secondary Considerations of non-obviousness

Licensing
Commercial success
Copying by others
Customer need
Limited value without the invention

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,675	02/16/2021	8032278	CAAMP-001X	7247

27975 7590 06/21/2021

ADD+G - 27975
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Winter Springs, FL 32708

EXAMINER
WASSUM, LUKE S

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
06/21/2021	PAPER

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The time period for reply, if any, is set in the attached communication.

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EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. *90/014,675* .

PATENT UNDER REEXAMINATION *8032278* .

ART UNIT *3992* .

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Office Action in Ex Parte Reexamination	**Control No.** 90/014,675	**Patent Under Reexamination** 8032278	
	Examiner Luke S Wassum	**Art Unit** 3992	**AIA (FITF) Status** No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

a. ☐ Responsive to the communication(s) filed on _____.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

b. ☐ This action is made FINAL.

c. ☑ A statement under 37 CFR 1.530 has not been received from the patent owner.

A shortened statutory period for response to this action is set to expire 2 month(s) from the mailing date of this letter. Failure to respond within the period for response will result in termination of the proceeding and issuance of an *ex parte* reexamination certificate in accordance with this action. 37 CFR 1.550(d). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).** If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☐ Notice of References Cited by Examiner, PTO-892.
2. ☐ Information Disclosure Statement, PTO/SB/08.
3. ☐ Interview Summary, PTO-474.
4. ☐ _____.

Part II SUMMARY OF ACTION

1a. ☑ Claims 1-22 are subject to reexamination.
1b. ☐ Claims _____ are not subject to reexamination.
2. ☐ Claims _____ have been canceled in the present reexamination proceeding.
3. ☑ Claims 2-3 and 12-17 are patentable and/or confirmed.
4. ☑ Claims 1,4-11 and 18-22 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ The drawings, filed on _____ are acceptable.
7. ☐ The proposed drawing correction, filed on _____ has been (7a) ☐ approved (7b) ☐ disapproved.
8. ☐ Acknowledgment is made of the priority claim under 35 U.S.C. 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the certified copies have
   1 ☐ been received.
   2 ☐ not been received.
   3 ☐ been filed in Application No. _____.
   4 ☐ been filed in reexamination Control No. _____.
   5 ☐ been received by the International Bureau in PCT application No. _____.
   * See the attached detailed Office action for a list of the certified copies not received.
9. ☐ Since the proceeding appears to be in condition for issuance of an *ex parte* reexamination certificate except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte* Quayle, 1935 C.D. 11, 453 O.G. 213.
10. ☐ Other: _____

cc: Requester (if third party requester)

Ex Parte Reexamination

A request for *Ex Parte* Reexamination of claims 1-22 of United States Patent Number 8,032,278 ("the '278 patent") was filed 16 February 2021 ("the Request"). The '278 patent issued to **Kenneth E. Flick** on 4 October 2011, from application number 11/773,272 ("the '272 application"), filed 3 July 2007.

The Office mailed a Decision granting reexamination of claims 1-22 on 25 March 2021.

Claims 1-22 are subject to reexamination.

Related Proceedings

The application which issued as the '278 patent was application no. 11/773,272 ("the '272 application"), filed 3 July 2007.

The '278 patent was the subject of four previous *Ex Parte* Reexamination proceedings; 90/013,587, filed 14 September 2014 ("**First Reexamination**"); 90/013,851, filed 28 October 2016 ("**Second Reexamination**"); 90/014,309, filed 24 May 2019 ("**Third Reexamination**"); and 90/014,419, filed 11 December 2019 ("**Fourth Reexamination**").

In the Fourth Reexamination, an Order denying the request was mailed on 27 January 2020. Third Party Requester Innova Electronics Corporation filed a petition to

review the examiner's decision to deny reexamination on 25 February 2020. There has been no decision on the petition.

Claim Interpretation

During reexamination, claims are given the broadest reasonable interpretation consistent with the specification and limitations in the specification are not read into the claims (*In re Yamamoto*, 740 F.2d 1569, 222 USPQ 934 (Fed. Cir. 1984)).

Upon review of the original specification and prosecution history, the examiner has found no instance of lexicographic definitions, either express or implied, that are inconsistent with the ordinary and customary meaning of the respective terms. Therefore, for the purposes of claim interpretation, the examiner concludes that there are no claim terms for which Patent Owner is acting as their own lexicographer. See MPEP § 2111.01.IV.

The Office notes that there were several claim terms construed by the Patent Trial and Appeal Board (PTAB) in a decision[1] on appeal in the Second Reexamination. In the Decision, the PTAB also considered the construction of claim terms ordered in related

[1] Reexamination Proceeding 90/013,851, Decision on Appeal, 13 November 2018.

District Court litigation[2] involving several patents by inventor Kenneth E. Flick, including the '278 patent.

The construed claim terms are as follows:

Multi-Vehicle Compatible Controller, construed as "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle."

Different Vehicles, construed as "vehicles from different manufacturers, different models, or different trim levels of the same make or model, but having different electronics."

Enabling Data, construed as "data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller, and which enables the controller to use a *particular* vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code."

The Court's construction of these claim terms is consistent with the broadest reasonable interpretation and is adopted for the purposes of the instant reexamination proceeding.

[2] *Omega Patents, LLC v. CalAmp Corp.*, No. 6:13-cv-1950-Orl-40DAB (M.D. Fla.), Claim Construction Order, 20 February 2015.

The Office also notes that the PTAB construed the claimed Vehicle Device Codes as "signal from a vehicle device". However, in light of the disclosure at col. 23, line 67 through col. 24, line 3, that "[t]he corresponding vehicle [device] code may be for reading from the vehicle device **121**. Similarly, the corresponding vehicle [device] code may be additionally or alternatively for writing to the vehicle device **121**", for the purposes of the instant reexamination proceeding, the term Vehicle Device Codes will be construed as "signal *to or* from a vehicle device."

Priority

The '278 patent is a continuation-in-part of application 11/076,259, filed 9 March 2005, now U.S. Patent 7,720,597, which is a continuation of application 10/383,496, filed 7 March 2003, now U.S. Patent 7,149,623, which is a continuation of application 09/859,972 ("'**972 application**"), filed 17 May 2001, now U.S. Patent 6,606,561.

The '278 patent also claimed priority under 35 U.S.C. § 119(e) to the following provisional applications:

60/264,811, filed 29 January 2001;

60/258,005, filed 22 December 2000;

60/251,552, filed 6 December 2000;

60/252,125, filed 20 November 2000;

60/246,463[3], filed 7 November 2000;

60/236,890, filed 29 September 2000;

60/222,777, filed 3 August 2000; and

60/205,178, filed 17 May 2000.

As a continuation-in-part, the '278 patent is entitled to a priority date earlier than the actual filing date of the '272 application only for those claims that are fully supported by the earlier cited applications.

The Office notes that each of the independent claims of the '278 patent includes several features that were not disclosed in the earlier cited applications, including the fact that the tracking unit and its components are *multi-vehicle compatible*, that the vehicle includes a *vehicle data bus* that extends throughout the vehicle to facilitate communication between the controller and *at least one vehicle device* using at least one corresponding *vehicle device code*, and that the tracking unit includes *a downloading interface* for permitting *downloading of enabling data* related to the at least one corresponding vehicle device code.

[3] The Office notes that the serial number of this provisional application contains a typographical error; the provisional application presumably intended in the priority claim was actually 60/246,436.

Since each of the independent claims of the '278 patent includes subject matter not supported by its parent application, the patent is entitled only to a priority date of 3 July 2007, the actual application date of the '272 application.

The Claimed Invention

Independent Claim 1 is directed to a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit may comprise a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller may be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The multi-vehicle compatible tracking unit may comprise a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

Independent Claims 13 and 18 are directed to multivehicle compatible tracking units similar to that of Claim 1, but further recite the downloading interface comprising a connector for temporary connection to a downloading device and a wireless receiver for temporary connection to a downloading device, respectively.

Prior Art Cited in the Request

The following reference was cited by the third party Requester in the Request for *Ex Parte* Reexamination:

U.S. Patent 6,611,740 to Lowrey et al. ("**Lowrey**")

U.S. Patent 6,636,790 to Lightner et al. ("**Lightner**").

Summary of the Grounds of Rejection

Ground 1: Claims 1, 4-11, and 18-22 are unpatentable under 35 U.S.C. § 103(a) as obvious over **Lowrey** in view of **Lightner**.

Relevant Statutes

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim Rejections

Ground 1: Lowrey and **Lightner**

Claims 1, 4-11, and 18-22 are unpatentable under 35 U.S.C. § 103(a) as obvious over **Lowrey** in view of **Lightner**.

Claim 1

Regarding claim 1, **Lowrey** teaches a **multi-vehicle compatible tracking unit for a vehicle** (see disclosure of in-vehicle wireless appliance **13** which can include hardware for global-positioning system (GPS) so that the location of the vehicle can be monitored [i.e., a *tracking* unit], col. 10, lines 56-61 and drawing Figure 1; see also disclosure that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can easily be transferred from one vehicle to another [i.e., multi-vehicle compatible], col. 4, lines 59-63), comprising **a vehicle data bus extending throughout the vehicle** (see disclosure of a shared, standardized electronic buss over which most

ECUs transmit status and diagnostic information, col. 1, lines 14-25 et seq.), the multi-vehicle compatible tracking unit comprising:

a) **a vehicle position determining device** (see disclosure that hardware for global-positioning system (GPS) may be included so that the location of the vehicle can be monitored along with its data, col. 10, lines 56-61 et seq.);

b) **a wireless communications device** (see disclosure of a data-transmitting component [e.g., a radio of cellular modem] that sends out the data packet over an existing wireless network, col. 2, lines 55-59; see also disclosure that the data transmission component that sends formatted data through cable **17** to antenna **14** which then radiates the data packet over airlink **9** to a base station **11** included in a wireless network **4**, col. 6, lines 14-26 et seq. and drawing Figure 1);

c) **a multi-vehicle compatible controller** (see disclosure of the data-collection component of in-vehicle wireless appliance **13**, and that said data-collection component includes a microcontroller, col, 6, lines 55-61; see also disclosure that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can easily be transferred from one vehicle to another [i.e., multi-vehicle compatible], col. 4, lines 59-63) **for cooperating with said vehicle position determining device and said wireless**

communications device to send vehicle position information (see disclosure that the data-collection component collects diagnostic data from the engine computer **15**, formats the data in a packet and passes the packet to the data-transmission component, col. 6, lines 8-22 et seq.; see also disclosure that hardware for global-positioning system (GPS) may be included so that the location of the vehicle can be monitored along with its data [i.e., vehicle location data is also collected by the data-collection component, formatted, and passed to the data-transmission component], col. 10, lines 56-61 et seq.);

d) **said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device** (see disclosure that the in-vehicle wireless appliance **13** interfaces with other vehicle systems via the OBD-II connector, col. 2, lines 2-3; see also disclosure that OBD-II systems exchange data over a shared, standardized electronic buss which effectively functions as an on-board computer network in the vehicle, including many processors each of which transmits and receives data, col. 1, lines 14-22 et seq.; see also disclosure that the data-collection component collects vehicle data from engine computer **15** via cable **16** [i.e., part of the claimed vehicle data bus], col. 6, lines 8-22 et seq. and drawing

Figure 1) **using at least one corresponding vehicle device code** (see disclosure of the use of diagnostic trouble codes [DTCs] that indicate a specific problem with the vehicle, col. 1, lines 31-36 and col. 1, line 63 through col. 2, line 14; see also disclosure of a data-collection schema, which is essentially a map that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory, col. 6, lines 54-62; see also disclosure that the appliance collects diagnostic data defined by the schema, formats the data in a data packet, and then sends an outgoing packet over the airlink to a wireless network, col. 6, line 65 through col. 7, line 4; the Office notes that the disclosed diagnostic data collected from engine computer **15** by wireless appliance **13**, as well as the queries defined by the data-collection schema that specify which diagnostic data is to be retrieved from the engine computer, are both consistent with the Office's interpretation of the claimed 'vehicle device codes' as 'a signal to or from a vehicle device') **from among a plurality thereof for different vehicles** (see disclosure that the schema, defining the data to be collected from the vehicle's engine computer, is specific to a given type of vehicle and is typically loaded onto the

microcontroller before the wireless appliance is installed in the vehicle, col. 6, lines 62-65 et seq.); and

e) **a downloading interface** (see disclosure of the data-transmission component configured to transmit an outgoing data packet comprising the diagnostic data over a network and to receive over the same network an incoming data packet that modifies the communication software, Abstract) **for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller** (see disclosure of the ability to download a data packet containing a new schema, col. 7, lines 14-26; see also disclosure that the host vehicle receives the packet and processes it to extract the new data-collection schema, which the wireless appliance uses to extract a revised set of data from the vehicle's engine computer, or to query a set of data that is relevant to a DTC that has been generated by the vehicle, col. 7, lines 33-43 et seq.; the Office notes that the disclosed data packet containing a new schema is consistent with the Office's interpretation of the claimed 'enabling data' as including 'data that otherwise enables the controller to select or generate the code', since said new schema, which includes the data to collect and its location, enables the wireless appliance to collect that particular data, i.e., to use that particular

vehicle device code from among plural such codes for different vehicles corresponding to different schemas).

To the extent that **Lowrey** does not explicitly teach additional details of how the diagnostic data is vehicle-specific, **Lightner** discloses these additional details at col. 6, lines 26-34:

> Depending on the make and model of the vehicle, the data packet can contain hundreds of datum that describe, e.g.: i) basic properties of the power train (e.g., emission levels, fuel-system status, engine temperature, speed and odometer readings, anti-lock brake status, RPMs, fuel and intake manifold pressure); and ii) manufacturer-specific information (e.g., status of the door locks, airbags, and entertainment center). In total, for most vehicles there are typically more than 300 datum that can be included in the data packet.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of **Lightner** into that of **Lowrey**, since they both relate to wireless in-vehicle appliances that utilize the vehicle's OBD-II systems to monitor diagnostic data from various on-board systems and to transmit such data over a wireless connection to a host computer system, such that vehicle health and performance can be remotely monitored. Furthermore, since the diagnostic data is produced by the OBD-II system, and both references disclose the use of an OBD-II

system, any disclosure with respect to the diagnostic data generated by the disclosed vehicle tracking system would apply equally to both references.

Claim 4

Regarding claim 4, **Lowrey** additionally teaches the tracking unit of claim 1 wherein said downloading interface comprises **a wireless signal downloading interface** (see disclosure of the data-transmission component configured to transmit an outgoing data packet comprising the diagnostic data over a network and to receive over the same network an incoming data packet that modifies the communication software, Abstract; see also disclosure that the transmission occurs wirelessly via airlink 9, col. 1, line 60 through col. 2, line 42 et seq. and drawing Figure 1).

Claim 5

Regarding claim 5, **Lowrey** additionally teaches the tracking unit of claim 4 wherein said wireless signal downloading interface comprises **a wireless receiver** (see disclosure of the data-transmission component configured to transmit an outgoing data packet comprising the diagnostic data over a network and to receive over the same network an incoming data packet that modifies the communication software, Abstract) **for temporary connection to a downloading device** (see disclosure of host computer

system **5** [i.e., downloading device] that can include multiple computers, software pieces, and other signal processing and switching equipment such as routers and digital signal processors, col. 6, lines 28-38, see also disclosure that the connection to the downloading device takes place at longer intervals specified in the data-collection schema, such as every 10 minutes [i.e., a temporary connection], col. 6, lines 18-22).

Claim 6

Regarding claim 6, **Lowrey** additionally teaches the tracking unit of claim 1 wherein **the corresponding at least one vehicle code is for reading from the at least one vehicle device** (see disclosure that the data-collection schema is essentially a map that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory, col. 6, lines 54-62 et seq.; see also disclosure that the appliance collects diagnostic data defined by the schema, col. 6, line 67 through col. 7, line 1; in other words, the data-collection schema defines the claimed at least one vehicle device code, in that the schema is used to generate queries to read data from a corresponding at least one vehicle device).

Claim 7

Regarding claim 7, **Lowrey** additionally teaches the tracking unit of claim 1 wherein **the corresponding at least one vehicle code is for writing to the at least one vehicle device** (see disclosure that a new schema can be transmitted to the wireless appliance to query a set of data that is relevant to a DTC registered by the vehicle, *or to 'clear' a DTC when it is deemed to no longer be problematic* [i.e., writing to a vehicle device], col. 7, lines 14-43).

To the extent that **Lowrey** does not explicitly disclose additional examples of at least one vehicle code for writing to the at least one vehicle device, **Lightner** further discloses such a feature (see disclosure that a data packet can be sent from the host computer system to the wireless communication system, which is processed by the microprocessor in the data collector/router to generate a signal that is sent to one of the vehicle's microcontrollers for adjusting a setting in the particular microcontroller, col. 3, line 22 through col. 4, line 8 et seq.).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize at least one vehicle code for writing to the at least one vehicle device, since this would allow technicians to not only remotely diagnose problems in a

vehicle based on downloaded diagnostic data, it would allow the technician to remotely take action to address said problem.

Claim 8

Regarding claim 8, **Lowrey** additionally teaches the tracking unit of claim 1 wherein said downloading interface is also for permitting **downloading of at least one programming instruction for said multi-vehicle compatible controller** (see disclosure of the ability to download a data packet containing a new schema, col. 7, lines 14-26; see also disclosure that the host vehicle receives the packet and processes it to extract the new data-collection schema, which the wireless appliance uses to extract a revised set of data from the vehicle's engine computer, to send out data at a revised frequency, or to query a set of data that is relevant to a DTC that has been generated by the vehicle, col. 7, lines 33-43 et seq.; see also disclosure that the wireless appliance can receive over a network an incoming data packet that modifies the communication software, Abstract).

Claim 9

Regarding claim 9, **Lowrey** additionally teaches the tracking unit of claim 1 further comprising **a remote transmitter** (see disclosure the system can include a hand-held device, e.g., a cellular telephone or portable digital assistant, that connects to the

host computer system through the Internet, col. 3, lines 56-63) and wherein **said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter** (see disclosure that the disclosed systems can be used for, *inter alia*, remote control of the vehicle [e.g., in response to theft or traffic/registration violations], col. 11, lines 8-13).

Claim 10

Regarding claim 10, **Lowrey** additionally teaches the tracking unit of claim 9 wherein the at least one vehicle remote control function comprises at least one of **a vehicle security function**, a remote keyless entry function, and a remote engine starting function (see disclosure that the disclosed systems can be used for, *inter alia*, remote control of the vehicle [e.g., in response to theft or traffic/registration violations], col. 11, lines 8-13).

Claim 11

Regarding claim 11, **Lowrey** additionally teaches the tracking unit of claim 1 wherein the wireless position determining device comprises **a Global Positioning System (GPS) receiver** (see disclosure that hardware for global-positioning system

(GPS) may be included so that the location of the vehicle can be monitored along with its data, col. 10, lines 56-61 et seq.).

Claim 18

Regarding claim 18, **Lowrey** teaches a **multi-vehicle compatible tracking unit for a vehicle** (see disclosure of in-vehicle wireless appliance **13** which can include hardware for global-positioning system (GPS) so that the location of the vehicle can be monitored [i.e., a *tracking* unit], col. 10, lines 56-61 and drawing Figure 1; see also disclosure that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can easily be transferred from one vehicle to another [i.e., multi-vehicle compatible], col. 4, lines 59-63), comprising **a vehicle data bus extending throughout the vehicle** (see disclosure of a shared, standardized electronic buss over which most ECUs transmit status and diagnostic information, col. 1, lines 14-25 et seq.), the multi-vehicle compatible tracking unit comprising:

a) **a vehicle position determining device** (see disclosure that hardware for global-positioning system (GPS) may be included so that the location of the vehicle can be monitored along with its data, col. 10, lines 56-61 et seq.);

b) **a wireless communications device** (see disclosure of a data-transmitting component [e.g., a radio of cellular modem] that sends out the data packet over an existing wireless network, col. 2, lines 55-59; see also disclosure that the data transmission component that sends formatted data through cable **17** to antenna **14** which then radiates the data packet over airlink **9** to a base station **11** included in a wireless network **4**, col. 6, lines 14-26 et seq. and drawing Figure 1);

c) **a multi-vehicle compatible controller** (see disclosure of the data-collection component of in-vehicle wireless appliance **13**, and that said data-collection component includes a microcontroller, col, 6, lines 55-61; see also disclosure that the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector and can easily be transferred from one vehicle to another [i.e., multi-vehicle compatible], col. 4, lines 59-63) **for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information** (see disclosure that the data-collection component collects diagnostic data from the engine computer **15**, formats the data in a packet and passes the packet to the data-transmission component, col. 6, lines 8-22 et seq.; see also disclosure that hardware for global-positioning system (GPS) may be

included so that the location of the vehicle can be monitored along with its data [i.e., vehicle location data is also collected by the data-collection component, formatted, and passed to the data-transmission component], col. 10, lines 56-61 et seq.);

d) **said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device** (see disclosure that the in-vehicle wireless appliance **13** interfaces with other vehicle systems via the OBD-II connector, col. 2, lines 2-3; see also disclosure that OBD-II systems exchange data over a shared, standardized electronic buss which effectively functions as an on-board computer network in the vehicle, including many processors each of which transmits and receives data, col. 1, lines 14-22 et seq.; see also disclosure that the data-collection component collects vehicle data from engine computer **15** via cable **16** [i.e., part of the claimed vehicle data bus], col. 6, lines 8-22 et seq. and drawing Figure 1) **using at least one corresponding vehicle device code** (see disclosure of the use of diagnostic trouble codes [DTCs] that indicate a specific problem with the vehicle, col. 1, lines 31-36 and col. 1, line 63 through col. 2, line 14; see also disclosure of a data-collection schema, which is essentially a map that describes the data that the wireless appliance

collects from the vehicle's engine computer, and its corresponding location in the computer's memory, col. 6, lines 54-62; see also disclosure that the appliance collects diagnostic data defined by the schema, formats the data in a data packet, and then sends an outgoing packet over the airlink to a wireless network, col. 6, line 65 through col. 7, line 4; the Office notes that the disclosed diagnostic data collected from engine computer **15** by wireless appliance **13**, as well as the queries defined by the data-collection schema that specify which diagnostic data is to be retrieved from the engine computer, are both consistent with the Office's interpretation of the claimed 'vehicle device codes' as 'a signal to or from a vehicle device') **from among a plurality thereof for different vehicles** (see disclosure that the schema, defining the data to be collected from the vehicle's engine computer, is specific to a given type of vehicle and is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle, col. 6, lines 62-65 et seq.); and

e) **a downloading interface** (see disclosure of the data-transmission component configured to transmit an outgoing data packet comprising the diagnostic data over a network and to receive over the same network an incoming data packet that modifies the communication software, Abstract) **for permitting**

downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller (see disclosure of the ability to download a data packet containing a new schema, col. 7, lines 14-26; see also disclosure that the host vehicle receives the packet and processes it to extract the new data-collection schema, which the wireless appliance uses to extract a revised set of data from the vehicle's engine computer, or to query a set of data that is relevant to a DTC that has been generated by the vehicle, col. 7, lines 33-43 et seq.; the Office notes that the disclosed data packet containing a new schema is consistent with the Office's interpretation of the claimed 'enabling data' as including 'data that otherwise enables the controller to select or generate the code', since said new schema, which includes the data to collect and its location, enables the wireless appliance to collect that particular data, i.e., to use that particular vehicle device code from among plural such codes for different vehicles corresponding to different schemas);

f) **said downloading interface comprising a wireless receiver for temporary connection to a downloading device** (see disclosure of the data-transmission component configured to transmit an outgoing data packet comprising the diagnostic data over a network and to receive over the same

network an incoming data packet that modifies the communication software, Abstract; see also disclosure that the transmission occurs wirelessly via airlink 9, col. 1, line 60 through col. 2, line 42 et seq. and drawing Figure 1).

To the extent that **Lowrey** does not explicitly teach additional details of how the diagnostic data is vehicle-specific, **Lightner** discloses these additional details at col. 6, lines 26-34:

> Depending on the make and model of the vehicle, the data packet can contain hundreds of datum that describe, e.g.: i) basic properties of the power train (e.g., emission levels, fuel-system status, engine temperature, speed and odometer readings, anti-lock brake status, RPMs, fuel and intake manifold pressure); and ii) manufacturer-specific information (e.g., status of the door locks, airbags, and entertainment center). In total, for most vehicles there are typically more than 300 datum that can be included in the data packet.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of **Lightner** into that of **Lowrey**, since they both relate to wireless in-vehicle appliances that utilize the vehicle's OBD-II systems to monitor diagnostic data from various on-board systems and to transmit such data over a wireless connection to a host computer system, such that vehicle health and

performance can be remotely monitored. Furthermore, since the diagnostic data is produced by the OBD-II system, and both references disclose the use of an OBD-II system, any disclosure with respect to the diagnostic data generated by the disclosed vehicle tracking system would apply equally to both references.

Claim 19

Regarding claim 19, **Lowrey** additionally teaches the tracking unit of claim 18 wherein **the corresponding at least one vehicle code is for reading from the at least one vehicle device** (see disclosure that the data-collection schema is essentially a map that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory, col. 6, lines 54-62 et seq.; see also disclosure that the appliance collects diagnostic data defined by the schema, col. 6, line 67 through col. 7, line 1; in other words, the data-collection schema defines the claimed at least one vehicle device code, in that the schema is used to generate queries to read data from a corresponding at least one vehicle device).

Claim 20

Regarding claim 20, **Lowrey** additionally teaches the tracking unit of claim 18 wherein **the corresponding at least one vehicle code is for writing to the at least one**

vehicle device (see disclosure that a new schema can be transmitted to the wireless appliance to query a set of data that is relevant to a DTC registered by the vehicle, *or to 'clear' a DTC when it is deemed to no longer be problematic* [i.e., writing to a vehicle device], col. 7, lines 14-43).

To the extent that **Lowrey** does not explicitly disclose additional examples of at least one vehicle code for writing to the at least one vehicle device, **Lightner** further discloses such a feature (see disclosure that a data packet can be sent from the host computer system to the wireless communication system, which is processed by the microprocessor in the data collector/router to generate a signal that is sent to one of the vehicle's microcontrollers for adjusting a setting in the particular microcontroller, col. 3, line 22 through col. 4, line 8 et seq.).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize at least one vehicle code for writing to the at least one vehicle device, since this would allow technicians to not only remotely diagnose problems in a vehicle based on downloaded diagnostic data, it would allow the technician to remotely take action to address said problem.

Claim 21

Regarding claim 21, **Lowrey** additionally teaches the tracking unit of claim 18 wherein said downloading interface is also for permitting **downloading of at least one programming instruction for said multi-vehicle compatible controller** (see disclosure of the ability to download a data packet containing a new schema, col. 7, lines 14-26; see also disclosure that the host vehicle receives the packet and processes it to extract the new data-collection schema, which the wireless appliance uses to extract a revised set of data from the vehicle's engine computer, to send out data at a revised frequency, or to query a set of data that is relevant to a DTC that has been generated by the vehicle, col. 7, lines 33-43 et seq.; see also disclosure that the wireless appliance can receive over a network an incoming data packet that modifies the communication software, Abstract).

Claim 22

Regarding claim 22, **Lowrey** additionally teaches the tracking unit of claim 18 further comprising **a remote transmitter** (see disclosure the system can include a hand-held device, e.g., a cellular telephone or portable digital assistant, that connects to the host computer system through the Internet, col. 3, lines 56-63) and wherein **said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter** (see disclosure that the disclosed

systems can be used for, *inter alia*, remote control of the vehicle [e.g., in response to theft or traffic/registration violations], col. 11, lines 8-13).

Allowable Subject Matter

Claims 2, 3, and 12-17 are confirmed.

STATEMENT OF REASONS FOR PATENTABILITY AND/OR CONFIRMATION

The following is an examiner's statement of reasons for patentability and/or confirmation of the claims found patentable in this reexamination proceeding:

Regarding claims 2, 3, and 13-17, these claims recite a downloading interface comprising a wired downloading signal interface (claims 2 and 3) or a downloading interface comprising a connector for temporary connection to a downloading device (claims 13-17).

The prior art of record teaches a tracking unit for a vehicle comprising a wireless appliance that collects diagnostic data from the vehicle and transmits said diagnostic data to a host computer system via a wireless network/airlink. No wired downloading interface or download interface comprising a connector is disclosed.

Requester urges the Office to use a broad interpretation of the claimed 'connector' and 'wired interface', such that the prior art would read on the limitations. However, the Office concludes that even under the BRI standard, such an interpretation would be unreasonable. Under BRI, claims are interpreted in light of, and consistent with, the specification. Requester's proposed interpretation would be inconsistent with what is disclosed by the Patent Owner in the specification and drawings.

For instance, at col. 24, lines 39-47, the '278 patent discloses that the wired downloading interface may connect (via connectors **133a** and **133b)** directly to a downloading device, such as a laptop computer, via RS232/429 protocol, USB, FireWire, TCP/IP (Internet), or any other wired protocol, or alternately via a socket for accepting a memory card or other data storage media capable of transferring data. The wired downloading interface is also illustrated in drawing Figure 13.

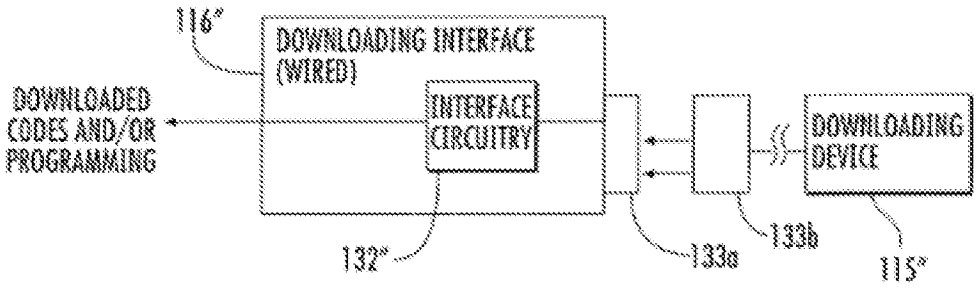


FIG. 13

With respect to claim 2, Requester proposes that a 'wired' signal downloading interface should be interpreted broadly enough to encompass **Lowrey's** cable **17**

connecting wireless appliance **13** and antenna **14** (see Figure 1). However, the term 'interface' commonly refers to the boundary across which computer components or systems exchange data. While **Lowrey's** cable **17** interfaces wireless appliance **13** with antenna **14**, it does not interface with a downloading device, as is disclosed.

With respect to claim 13, interpreting the claimed connector as analogous to the transmit/receive functionality of **Lowrey's** data transmission component would be inconsistent with the '278 patent's disclosures regarding the connectors and the wired downloading interface.

Indeed, the disclosed characterization of **Lowrey's** in-vehicle appliance as 'wireless' makes clear that the interface between the appliance and the downloading device is not a wired interface comprising a connector for connecting to a downloading device.

On this basis, claims 2, 3, and 13-17 are confirmed.

Regarding claim 12, there is no disclosure in the prior art of record that teaches or fairly suggests a housing that contains all of the claimed vehicle position determining device, wireless communications device, multi-vehicle compatible controller, and download interface.

On this basis, claim 12 is confirmed.

Any comments considered necessary by PATENT OWNER regarding the above statement must be submitted promptly to avoid processing delays. Such submission by the patent owner should be labeled: "Comments on Statement of Reasons for Patentability and/or Confirmation" and will be placed in the reexamination file.

Conclusion

Extensions of time under 37 CFR 1.136(a) do not apply in reexamination proceedings. The provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Further, in 35 U.S.C. 305 and in 37 CFR 1.550(a), it is required that reexamination proceedings "will be conducted with special dispatch within the Office."

Extensions of time in reexamination proceedings are provided for in 37 CFR 1.550(c). A request for extension of time must specify the requested period of extension and it must be accompanied by the petition fee set forth in 37 CFR 1.17(g). Any request for an extension in a third party requested ex parte reexamination must be filed on or before the day on which action by the patent owner is due, and the mere filing of a request will not effect any extension of time. A request for an extension of time in a third party requested ex parte reexamination will be granted only for sufficient cause, and for a reasonable time specified. Any request for extension in a patent owner requested ex parte reexamination (including reexamination ordered under 35 U.S.C. 257) for up to two months from the time period set in the Office action must be filed no later than two months from the expiration of the time period set in the Office action. A request for an extension in a patent owner requested ex parte reexamination for more than two months from the time period set in the Office action must be filed on or before

the day on which action by the patent owner is due, and the mere filing of a request for an extension for more than two months will not effect the extension. The time for taking action in a patent owner requested ex parte reexamination will not be extended for more than two months from the time period set in the Office action in the absence of sufficient cause or for more than a reasonable time.

The Patent Owner is reminded of the continuing responsibility under 37 CFR 1.565(a), to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving U.S. Patent No. 8,032,278 throughout the course of this reexamination proceeding. The third party requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

The Patent Owner is reminded that any proposed amendment to the specification and/or claims in the reexamination proceeding must comply with the provisions of 37 C.F.R. § 1.530(d)-(j), must be formally presented pursuant to 37 C.F.R. § 1.52(a) and (b), and must include any fees required by 37 C.F.R. § 1.20(c). See MPEP § 2250(IV) for examples to assist in the preparation of proper amendments in reexamination proceedings.

In order to ensure full consideration of any amendments, affidavits or declarations, or other documents as evidence of patentability, such documents must be submitted in response to this Office action. Submissions after the next Office action, which is intended to be a final action, will be governed by the requirements of 37 CFR 1.116, after final rejection and 37 CFR 41.33 after appeal, which will be strictly enforced.

Any document filed by the Patent Owner must be served on the third party requester (or requesters in a merged proceeding) in the reexamination proceeding in the manner provided by 37 C.F.R. § 1.248. See 37 C.F.R. § 1.550(f) and MPEP § 2266.03.

All correspondence relating to this *ex parte* reexamination proceeding should be directed:

By EFS-Web: Registered Users may submit correspondence via EFS-Web, at https://efs.uspto.gov/efile/myportal/efs-registered.

By Mail to: Mail Stop *Ex Parte* Reexam
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Commissioner for Patents
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Alexandria, VA 22313-1450

By FAX to: (571) 273-9900
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EFS-Web offers the benefit of quick submission to the particular area of the Office that needs to act on the correspondence. Also, EFS-Web submissions are "soft-scanned" (i.e., electronically uploaded) directly into the official file for the reexamination proceeding, which offers parties the opportunity to review the content of their submission after the "soft scanning" process is complete.

Any inquiry concerning this communication should be directed to the Central Reexamination Unit at telephone number 571-272-7705.

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lsw
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Reexamination	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90/014,675	8032278
	Certificate Date	Certificate Number

Requester Correspondence Address: ☐ Patent Owner ☑ Third Party
STETINA BRUNDA GARRED & BRUCKER 75 ENTERPRISE SUITE 250 ALISO VIEJO, CA 92656

LITIGATION REVIEW ☑	lsw (examiner initials)	18 February 2021 (date)
Case Name		Director Initials
Omega Patents, LLC v. Enfora, Inc, 1:17cv2769 (closed)		
Omega Patents, LLC v. CalAmp Corp., 6:13cv1950 (closed)		

COPENDING OFFICE PROCEEDINGS	
TYPE OF PROCEEDING	NUMBER
Ex Parte Reexamination	90/014,419

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90/014,675	8032278
	Examiner	Art Unit
	Luke S Wassum	3992

CPC - Searched*		
Symbol	Date	Examiner

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
Reviewed Prosecution History of appn 11/773,272, and reexaminations 90/013,587; 90/013,851; 90/014,309; and 90/014,419 .	03/17/2021	lsw

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. *90/014,675* .

PATENT UNDER REEXAMINATION *8032278* .

ART UNIT *3992* .

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Order Granting Request For Ex Parte Reexamination	Control No. 90/014,675	Patent Under Reexamination 8032278	
	Examiner Luke S Wassum	Art Unit 3992	AIA (FITF) Status No

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

The request for *ex parte* reexamination filed 02/16/2021 has been considered and a determination has been made. An identification of the claims, the references relied upon, and the rationale supporting the determination are attached.

Attachments: a)☑ PTO-892, b)☐ PTO/SB/08, c)☐ Other: ____

1. ☑ The request for *ex parte* reexamination is GRANTED.

RESPONSE TIMES ARE SET AS FOLLOWS:

For Patent Owner's Statement (Optional): TWO MONTHS from the mailing date of this communication (37 CFR 1.530 (b)). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).**

For Requester's Reply (optional): TWO MONTHS from the **date of service** of any timely filed Patent Owner's Statement (37 CFR 1.535). **NO EXTENSION OF THIS TIME PERIOD IS PERMITTED.** If Patent Owner does not file a timely statement under 37 CFR 1.530(b), then no reply by requester is permitted.

cc:Requester (if third party requester)

Decision Granting *Ex Parte* Reexamination

A substantial new question of patentability affecting claims 1-22 of United States Patent Number 8,032,278 ("the '278 patent") is raised by the request for *Ex Parte* Reexamination filed 16 February 2021 ("the Request"). Claims 1-22 are subject to reexamination.

Related Proceedings

The application which issued as the '278 patent was application no. 11/773,272 ("the '272 application"), filed 3 July 2007.

The '278 patent was the subject of four previous *Ex Parte* Reexamination proceedings; 90/013,587, filed 14 September 2014 ("**First Reexamination**"); 90/013,851, filed 28 October 2016 ("**Second Reexamination**"); 90/014,309, filed 24 May 2019 ("**Third Reexamination**"); and 90/014,419, filed 11 December 2019 ("**Fourth Reexamination**").

In the Fourth Reexamination, an Order denying the request was mailed on 27 January 2020. Third Party Requester Innova Electronics Corporation filed a petition to review the examiner's decision to deny reexamination on 25 February 2020. There has been no decision on the petition.

Claim Interpretation

During reexamination, claims are given the broadest reasonable interpretation consistent with the specification and limitations in the specification are not read into the claims (*In re Yamamoto*, 740 F.2d 1569, 222 USPQ 934 (Fed. Cir. 1984)).

Upon review of the original specification and prosecution history, the examiner has found no instance of lexicographic definitions, either express or implied, that are inconsistent with the ordinary and customary meaning of the respective terms. Therefore, for the purposes of claim interpretation, the examiner concludes that there are no claim terms for which Patent Owner is acting as their own lexicographer. See MPEP § 2111.01.IV.

The Office notes that there were several claim terms construed by the Patent Trial and Appeal Board (PTAB) in a decision[1] on appeal in the Second Reexamination. In the Decision, the PTAB also considered the construction of claim terms ordered in related District Court litigation[2] involving several patents by inventor Kenneth E. Flick, including the '278 patent.

[1] Reexamination Proceeding 90/013,851, Decision on Appeal, 13 November 2018.
[2] *Omega Patents, LLC v. CalAmp Corp.*, No. 6:13-cv-1950-Orl-40DAB (M.D. Fla.), Claim Construction Order, 20 February 2015.

The construed claim terms are as follows:

Multi-Vehicle Compatible Controller, construed as "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle."

Different Vehicles, construed as "vehicles from different manufacturers, different models, or different trim levels of the same make or model, but having different electronics."

Enabling Data, construed as "data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller, and which enables the controller to use a *particular* vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code."

The PTAB's construction of these claim terms is consistent with the broadest reasonable interpretation and is adopted for the purposes of the instant reexamination proceeding.

The Office also notes that the PTAB construed the claimed Vehicle Device Codes as "signal from a vehicle device". However, in light of the disclosure at col. 23, line 67 through col. 24, line 3, that "[t]he corresponding vehicle [device] code may be for

reading from the vehicle device **121**. Similarly, the corresponding vehicle [device] code may be additionally or alternatively for writing to the vehicle device **121**", for the purposes of the instant reexamination proceeding, the term Vehicle Device Codes will be construed as "signal *to or* from a vehicle device."

Priority

The '278 patent is a continuation-in-part of application 11/076,259, filed 9 March 2005, now U.S. Patent 7,720,597, which is a continuation of application 10/383,496, filed 7 March 2003, now U.S. Patent 7,149,623, which is a continuation of application 09/859,972 ("**'972 application**"), filed 17 May 2001, now U.S. Patent 6,606,561.

The '278 patent also claimed priority under 35 U.S.C. § 119(e) to the following provisional applications:

60/264,811, filed 29 January 2001;

60/258,005, filed 22 December 2000;

60/251,552, filed 6 December 2000;

60/252,125, filed 20 November 2000;

60/246,463[3], filed 7 November 2000;

60/236,890, filed 29 September 2000;

60/222,777, filed 3 August 2000; and

[3] The Office notes that the serial number of this provisional application contains a typographical error; the provisional application presumably intended in the priority claim was 60/246,436.

60/205,178, filed 17 May 2000.

As a continuation-in-part, the '278 patent is entitled to a priority date earlier than the actual filing date of the '272 application only for those claims that are fully supported by the earlier cited applications.

The Office notes that each of the independent claims of the '278 patent includes several features that were not disclosed in the earlier cited applications, including the fact that the tracking unit and its components are *multi-vehicle compatible*, that the vehicle includes a *vehicle data bus* that extends throughout the vehicle to facilitate communication between the controller and *at least one vehicle device* using at least one corresponding *vehicle device code*, and that the tracking unit includes *a downloading interface* for permitting *downloading of enabling data* related to the at least one corresponding vehicle device code.

Since each of the independent claims of the '278 patent includes subject matter not supported by its parent application, the patent is entitled only to a priority date of 3 July 2007, the actual application date of the '272 application.

The Claimed Invention

Independent Claim 1 is directed to a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit may comprise a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller may be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The multi-vehicle compatible tracking unit may comprise a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

Independent Claims 13 and 18 are directed to multivehicle compatible tracking units similar to that of Claim 1, but further recite the downloading interface comprising a connector for temporary connection to a downloading device and a wireless receiver for temporary connection to a downloading device, respectively.

Applicant's Response, pages 8-9, filed 5 April, 2011, in the '272 Application.

Relevant Prosecution History

11/773,272

The '272 application was filed on 3 July 2007, with 15 drawing figures and 30 claims. Claims 23-30 were withdrawn from consideration after a restriction requirement and subsequently canceled.

At the time of filing, Applicant submitted an Information Disclosure Statement (IDS), citing 6 patent documents all having the same inventor as the '272 application, Kenneth E. Flick.

Prior art references applied over the course of prosecution included U.S. Patent 5,940,007 to Brinkmeyer et al. ("**Brinkmeyer**") and U.S. Patent 6,253,064 to David A. Monroe ("**Monroe**").

After a non-final rejection mailed on 5 January 2011, Applicant filed a response on 5 April 2011. Therein, they argued that the prior art failed to disclose or suggest the following claimed features (see page 10):

- a multi-vehicle compatible controller coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one

corresponding vehicle device code from among a plurality thereof for different vehicles (independent claims 1, 13, 18)

- a multi-vehicle compatible tracking unit including a connector for temporary connection to a downloading device (independent claim 13 only).

The Applicants further noted that with respect to the connector, this would enable a user to quickly download new vehicle codes into the multi-vehicle compatible tracking unit without removing and reinstalling the unit.

The Office issued a Notice of Allowance on 28 June 2011.

In the absence of a specific statement of reasons for allowance in the Notice of Allowance, the presumed reasons for allowance are that the prior art of record failed to disclose or suggest the claimed multi-vehicle compatible controller coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles.

U.S. Patent 8,032,278 issued on 4 October 2011.

90/013,587 (**First Reexamination**)

Requester CalAmp Corporation filed a Request for Reexamination of claims 1-22 of the '278 patent on 14 September 2015. Five patents were cited as raising a Substantial New Question of Patentability (SNQ) with respect to the claims:

U.S. Patent 6,028,537 to Suman et al. ("**Suman**");

U.S. Patent 5,732,074 to Spaur et al. ("**Spaur**");

U.S. Patent 5,557,254 to Johnson et al. ("**Johnson**");

U.S. Patent 5,208,756 to Song ("**Song**"); and

U.S. Patent 5,877,724 to Davis ("**Davis**").

In an order mailed 10 November 2015, the Office ordered reexamination of claims 1-22 of the '278 patent.

After receipt of a Patent Owner's Statement and subsequent Requester's Response to the statement, the Office issued a non-final action on 6 May 2016. Therein, based upon the Requester's Response, three additional references were cited as raising an SNQ with respect to claims 1-22:

U.S. Patent 6,009,363 to Beckert et al. ("**Beckert**");

U.S. Patent 7,484,008 to Gelvin et al. ("**Gelvin**"); and

U.S. Patent Application Publication 2001/0033225 to Razavi et al. ("**Razavi**").

Claims 1-22 were rejected as anticipated by **Suman**, as anticipated by **Beckert**, as obvious over **Spaur** and **Johnson**, and as obvious over **Spaur** and **Song**.

In an Examiner's Interview on 16 June 2016, the examiner agreed to withdraw the rejections based upon **Beckert**; no reasoning was provided on the record.

Patent Owner filed a subsequent response on 6 July 2016, including arguments that the claims distinguished over the prior art of record, and supported by declarations by Michael J. Suman and Joseph C. McAlexander, III, (**Suman Declaration** and **McAlexander Declaration**, respectively).

Specifically, Patent Owner argued that the prior art of record failed to disclose (1) the multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device *using at least one corresponding vehicle device code from among a plurality thereof for different vehicles*; and (2) a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

In a Notice of Intent to Issue an *Ex Parte* Reexamination Certificate (NIRC) mailed 1 December 2016, the examiner referred to the **Suman Declaration** and **McAlexander Declaration** as providing reasons why the claims distinguished over the prior art of record.

Therefore, the presumed reasons for confirming the claims was that the prior art of record failed to disclose or render obvious the claimed features of (1) the multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device *using at least one corresponding vehicle device code from among a plurality thereof for different vehicles*; and (2) a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

A Reexamination Certificate was issued on 28 December 2016.

90/013,851 (**Second Reexamination**)

Requester CalAmp Corporation filed a Request for Reexamination of claims 1-22 of the '278 patent on 28 October 2016. Five references were cited as raising a Substantial New Question of Patentability (SNQ) with respect to the claims:

U.S. Patent 6,009,363 to Beckert et al. ("**Beckert**")[4];

U.S. Patent 5,732,074 to Spaur et al. ("**Spaur**")[5];

U.S. Patent 6,028,537 to Suman et al. ("**Suman**")[6];

U.S. Patent 6,330,499 to Chou et al. ("**Chou**")[7]; and

"SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual ("**SAE HS-3000**").

In an order mailed 15 December 2016, the Office ordered reexamination of claims 1-22 of the '278 patent.

In the Order, it was noted that the four 'old art' references were not precluded from raising an SNQ with respect to the claims, because they were each considered in combination with a new reference, **SAE HS-3000**. The four proposed SNQs were based upon a combination of prior art that had not previously been considered by the Office.

[4] **Beckert** is old art, as it was applied to reject claims during prosecution of the First Reexamination.
[5] **Spaur** is old art, as it was applied to reject claims during prosecution of the First Reexamination.
[6] **Suman** is old art, as it was applied to reject claims during prosecution of the First Reexamination.
[7] **Chou** is old art, as it was applied to reject claims during prosecution of the '972 application, the great-grandparent of the '272 application.

A non-final rejection was mailed on 29 March 2017. Therein, claims 1, 4-8, 11, 12, and 18-21 were rejected as anticipated or obvious over **Chou** (pages 22-33). Claims 9, 10, and 22 were rejected as obvious over **Chou** and **Suman** (pages 33-37). Claims 2, 3, and 13-16 were rejected as obvious over **Chou** and **Spaur** (pages 37-41). Claim 17 was rejected as obvious over **Chou**, **Suman**, and **Spaur** (page 41).

After an examiner's interview at which no agreement was reached, Patent Owner filed a Response to the Office action on 12 June 2017. Therein, Patent Owner argued, *inter alia*, that **Chou** failed to disclose or render obvious the claimed features of (1) the multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and (2) a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

The rejections were maintained in a final rejection mailed 19 July 2017, as well as Advisory Actions mailed 29 September, 10 October, and 5 December 2017.

The rejections were appealed to the Patent Trial and Appeals Board (PTAB), with the Brief filed on 27 February 2018, the Examiner's Answer mailed on 14 May 2018, and the Reply Brief filed on 16 August 2018. An Oral Hearing was held on 31 October 2018.

On 13 November 2018, the PTAB issued a decision, reversing the rejections. Therein, the PTAB concluded that the prior art of record failed to disclose or render obvious the features of (1) the *multi-vehicle compatible controller* to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and (2) a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

A Reexamination Certificate was issued on 6 February 2019.

90/014,309 (**Third Reexamination**)

Requester CalAmp Corporation filed a Request for Reexamination of claims 1-22 of the '278 patent on 24 May 2019. Five references were cited as raising a Substantial New Question of Patentability (SNQ) with respect to the claims:

U.S. Patent 6,430,164 to Jones et al. ("**Jones**");

"CellPort Delivers Wireless, Vehicle-Based Applications Platform; Announces CP2100 Mobile Network Server" ("**CellPort Labs**");

"A Demonstration Project for the ITS Data Bus Prototype" by Spelt et al. ("**Spelt**");

"Prep for a Multimedia Future" by Maury Wright ("**Wright**"); and

"SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual[8]" ("**SAE HS-3000**").

In an order mailed 10 July 2019, the Office ordered reexamination of claims 1-22 of the '278 patent.

In the Order, it was noted that the 'old art' reference was not precluded from raising an SNQ with respect to the claims, because it was considered in combination with new references. The proposed SNQs were based upon a combination of prior art that had not previously been considered by the Office.

[8] **SAE HS-3000** is old art, as it was applied to establish an SNQ during prosecution of the Second Reexamination.

In a Notice of Intent to Issue an *Ex Parte* Reexamination Certificate (NIRC) mailed 27 November 2019, the examiner stated that the reason for confirming the claims was that the prior art of record failed to disclose or render obvious the claimed features of (1) the *multi-vehicle compatible controller* to be coupled to the *vehicle data bus* for communication thereover with *at least one vehicle device* using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and (2) a *downloading interface* for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

A Reexamination Certificate was issued on 8 January 2020.

90/014,419 (**Fourth Reexamination**)

Requester Innova Electronics Corporation filed a Request for Reexamination of claims 1-22 of the '278 patent on 11 December 2019. Seven references were cited as raising a Substantial New Question of Patentability (SNQ) with respect to the claims:

U.S. Patent 5,719,551 to Kenneth E. Flick ("**Flick '551**");

U.S. Patent 5,940,007 to Brinkmeyer et al[9]. ("**Brinkmeyer**");

U.S. Patent 6,253,064 to David A. Monroe[10] ("**Monroe**");

U.S. Patent 5,081,667 to Drori et al. ("**Drori**");

"Trimble Microsoft Launch GPS System for Car PC" ("**SpaceDaily**");

"Travetek Makes Mission Possible" by Jim Mateja ("**Mateja**"); and

"DRIVING SMART: Lost in Yonkers? An Olds Option Could be a Guide" by John Holusha ("**Holusha**").

In an order mailed 27 January 2020, the Office denied reexamination of claims 1-22 of the '278 patent.

The reason cited for the denial was that both of the proposed SNQs relied upon the **Flick '551** as the primary reference, but the reference was considered 'old art' already considered by the Office because it was listed on the face of the '278 patent in the 'References Cited' section, and furthermore because at col. 22, lines 3-7, the '278 patent incorporated the contents of the **Flick '551** patent by reference. The Office further concluded that the remaining cited references were either 'old art', or were

[9] **Brinkmeyer** is old art, as it was applied to reject claims during prosecution of the '272 application.
[10] **Monroe** is old art, as it was applied to reject claims during prosecution of the '272 application.

cumulative to the art previously considered during prosecution of the '272 application and the previous reexaminations.

Patent Owner filed a Petition for Review of Examiner's Decision Refusing *Ex Parte* Reexamination under 37 C.F.R. § 1.181 on 25 February 2020. A decision on the petition has not yet been rendered by the Office.

The Substantial New Question of Patentability

The standard for establishing a Substantial New Question of Patentability is defined in the following sections of the MPEP:

MPEP § 2242(I) provides, in pertinent part:

> A prior art patent or printed publication raises a substantial question of patentability where there is a substantial likelihood that a reasonable examiner would consider the prior art patent or printed publication important in deciding whether or not the claim is patentable.

Over the course of the original prosecution of the '272 application, and the subsequent four reexamination proceedings of the '278 patent, the limitations that were not found in the prior art were

> *a multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles*; and
>
> *a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller*.

Thus, prior art which teaches or suggests the above-cited claim features would raise a Substantial New Question of Patentability with respect to claims 1-22 of the '278 patent.

Prior Art Cited in the Request

The following reference was cited by the third party Requester in the Request for *Ex Parte* Reexamination:

U.S. Patent 6,611,740 to Lowrey et al. ("**Lowrey**")

The Office notes that the Requester also cites U.S. Patent 6,636,790 to Lightner et al. ("**Lightner**"), which Requester alleges was fully incorporated by reference by **Lowrey**, despite having not been specifically identified by application number in the specification.

The requirements for proper incorporation of subject matter by reference are specified in 37 C.F.R. § 1.57. Subsection (c) requires that an incorporation by reference must be set forth in the specification and must (1) express a clear intent to incorporate by reference by using the root words "incorporat(e)" and "reference" (e.g., "incorporate by reference"); and (2) clearly identify the referenced patent, application, or publication.

Lowrey includes the following disclosure at col. 2, lines 59-62, with respect to a "wireless appliance":

> Such a wireless appliance is described in the application WIRELESS DIAGNOSTIC SYSTEM FOR VEHICLES, filed Feb. 1, 2001, the contents of which are incorporated herein by reference.

This disclosure clearly satisfies the requirement of 37 C.F.R. § 1.57(c)(1), by use of the phrase "incorporated herein by reference."

With respect to the requirement of 37 C.F.R. § 1.57(c)(2), the specification includes only the name of the application and the date on which it was filed. MPEP § 608.1(p) states that with respect to incorporation by reference, "A citation of a patent

application by attorney docket number, inventor name, filing date and title of invention may sufficiently describe the document, but *even then correction should be made to specify the application number*." (emphasis added)

Since the MPEP states that even given an attorney docket number, inventor name, filing date and title of invention, applicant should correct the citation to include the application number, the Office will interpret the instant citation, which includes only the filing date and title of the invention, as not complying with the provisions of 37 C.F.R. § 1.57(c)(2), and therefore improper.

Nevertheless, Requester has provided evidence (see **Request**, pages 4-5) that the document that the inventor intended to incorporate by reference was actually application number 09/776,106, now U.S. Patent 6,636,790 (**Lightner**). In their discussion of reasons for raising an SNQ, Requester cites to portions of **Lightner** in addition to **Lowrey**.

Since, as noted above, the attempt to incorporate by reference the disclosure of **Lightner** into the specification of **Lowrey** was improper, the Office will treat the request for reexamination as being based on **Lowrey** in combination with **Lightner**.

Proposed Substantial New Question of Patentability

Ex Parte Reexamination of claims 1-22 of the '278 patent has been requested, based upon the following issues presented in the form of proposed claim rejections:

Issue 1: Whether claims 1-22 are obvious under 35 U.S.C. § 103(a) in view of **Lowrey** and **Lightner**[11].

Analysis

The Examiner agrees that based upon the following analysis, the teachings of the cited prior art raises a substantial new question of patentability with regard to claims 1-22 of the '278 patent.

Issue 1: **Lowrey** and **Lightner**

Lowrey in view of **Lightner** raises a substantial new question of patentability with respect to claims 1-22 of the '278 patent, for the reasons discussed below.

[11] Requester proposes to reject claims 1, 2, and 4-22 as anticipated by **Lowrey** (incorporating **Lightner** by reference). As discussed above, the Office concludes that the incorporation by reference of **Lightner** by **Lowrey** was improper, and instead treats the request as applying the combination of **Lowrey** and **Lightner** to the claims of the '278 patent.

Lowrey discloses a system for monitoring a vehicle that includes a wireless appliance in electrical contact with an in-vehicle computer. The wireless appliance features (1) a data-collection component that supports communication software that collects diagnostic data from the computer; and (2) a data-transmission component, in electrical contact with the data-collection electronics, configured to transmit an outgoing data packet comprising the diagnostic data over a network and receive over the same network an incoming data packet that modifies the communication software.

Embodiments of the invention can access data from the vehicle, analyze it, and make it available to organizations (e.g., an automotive dealership or service center) over the internet so that the vehicle's performance can be analyzed accurately and in real-time. The data includes, for example, diagnostic trouble codes (DTCs) and mechanical and electrical data stored in the vehicle's engine computer.

The communication software supported by the data-collection component features a schema component that identifies the diagnostic data to be collected from the vehicle's computer. The schema component features an address that describes a location of a diagnostic datum in the vehicle's computer memory. It can also describe a time or frequency that the data-collection component collects data from the vehicle's computer, or a time or frequency that the data-transmission component transmits an

outgoing data packet. The schema component is typically an ASCII or binary data file that is configured to be processed by the communication software.

Software schemas that update the type or frequency of the vehicle's data can be directly downloaded to specific wireless appliances or groups of wireless appliances (corresponding, e.g., to a fleet of vehicles or a group of vehicles having the same year, make, or model). The schema is essentially a 'map' that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory. A schema specific to a given type of vehicle is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle. The appliance collects diagnostic data defined by the schema, formats these data in a data packet, and then sends an outgoing packet over the airlink to a wireless network.

A technician working at a vehicle-service center can log into the web site and analyze the data set corresponding to a particular vehicle to diagnose a potential mechanical or electrical problem. Based on the analysis, the technician may decide that additional data are required, or that data need to be collected and transmitted at a higher or lower frequency. In this case, the technician uses the web site to select a new schema and then sends an incoming data packet that includes a new schema over the wireless network to the wireless appliance included in the vehicle being diagnosed.

The wireless appliance uses the updated schema to extract a revised set of data from the engine's computer, or send out data at a revised frequency. In other applications, the new schema can be used to query a set of data that is relevant to a DTC registered by the vehicle, or to 'clear' a DTC when it is deemed to no longer be problematic.

Specifically with respect to the SNQ, **Lowrey** discloses *a multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles.*

As discussed above with respect to claim construction, the claimed multi-vehicle compatible controller is interpreted by the Office as "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle."

Lowrey discloses a wireless appliance comprising a data-collection component. The wireless appliance collects diagnostic data from the vehicle's engine computer, and the data-collection component formats the data in a packet and then passes the packet to a data-transmission component (col. 6, lines 8-22). The data-collection component includes a microcontroller that has software and a data-collection 'schema' loaded into the microcontroller's memory (col. 6, lines 55-59). The disclosed controller is multi-vehicle compatible, in that the wireless appliance can be easily installed in nearly every

vehicle with an OBD-II connector in a matter of minutes, and can be easily transferred from one vehicle to another (col. 4, lines 59-63).

Lowrey furthermore discloses that OBD-II systems monitor a vehicle's electrical and mechanical systems and generate data that are processed by a vehicle's engine control unit (ECU) to detect any malfunction or deterioration in the vehicle's performance. Most ECUs transmit status and diagnostic information over a shared, standardized electronic buss in the vehicle. The buss effectively functions as an on-board computer network with many processors, each of which transmits and receives data (col. 1, lines 14-22).

As discussed above with respect to claim construction, the claimed vehicle device code is interpreted by the Office as "signal to or from a vehicle device."

Lowrey discloses collecting diagnostic data from the vehicle computer, including diagnostic trouble codes (DTCs) (col. 1, lines 29-36, and col. 1, line 63 through col. 2, line 14). Further disclosed is the use of a data-collection 'schema' which is essentially a 'map' that describes data that the wireless appliance collects from the vehicle's engine computer. The schema is specific to a given type of vehicle (col. 6, line 54 through col. 7, line 3).

Lowrey therefore discloses *a multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles,* a feature that was lacking in the prior art of record at the time of allowance of the '278 patent, and the later confirmation of claims in the subsequent reexamination proceedings.

Further with respect to the SNQ, **Lowrey** discloses *a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.*

As discussed above with respect to claim construction, the claimed enabling data is interpreted by the Office as "data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller, and which enables the controller to use a *particular* vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code."

Lowrey discloses downloading new or updated schema to extract a revised set of data from the engine's computer, or send out data at a revised frequency. In other applications, the new schema can be used to query a set of data that is relevant to a DTC registered by the vehicle, or to 'clear' a DTC when it is deemed to no longer be

problematic (col. 7, lines 19-26). The schema is specific to a given type of vehicle (col. 6, line 59 through col. 7, line 3).

Lowrey therefore discloses *a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller,* a feature that was lacking in the prior art of record at the time of allowance of the '278 patent, and the later confirmation of claims in the subsequent reexamination proceedings.

Non-cumulative features taught by **Lowrey** include the data-collection component which features a schema component that identifies the diagnostic data to be collected from the vehicle's computer (col. 6, lines 55-59), taken in the context that the schema is specific to a given type of vehicle [i.e., the system is multi-vehicle compatible] (col. 6, line 54 through col. 7, line 3), as well as the capability for a new or updated schema to be downloaded to the wireless appliance (col. 7, lines 19-26) and where the wireless appliance can be easily installed in nearly every vehicle with an OBD-II connector in a matter of minutes, and can be easily transferred from one vehicle to another (col. 4, lines 59-63).

In light of these teachings, there is a substantial likelihood that a reasonable examiner would consider **Lowrey** in combination with **Lightner** important in deciding whether or not claims 1-22 of the '278 patent are patentable.

The teachings of **Lowrey** in combination with **Lightner** are new and non-cumulative with respect to the teachings of the prior art applied during the prosecution of the '272 application, or during any of the four previous reexamination proceedings. Furthermore, the teachings of **Lowrey** in combination with **Lightner** have not been considered in a final holding of invalidity by a federal court. Accordingly, **Lowrey** in combination with **Lightner** raises a substantial new question of patentability with regard to claims 1-22 that has not been decided in a previous examination, reexamination, or other proceeding before the Office.

Conclusion

As discussed above, the prior art cited in the request raises a SNQ as to the claims of the '278 patent. Specifically, there is a substantial likelihood that a reasonable examiner would consider the new non-cumulative teachings of **Lowrey** regarding the claimed features of *a multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles* and *a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller* (with respect to claims 1-22) in combination with other art, as discussed above, to be important in deciding whether or not the claims are patentable.

Extensions of time under 37 CFR 1.136(a) will not be permitted in these proceedings because the provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Additionally, 35 U.S.C. 305 requires that *ex parte* reexamination proceedings "will be conducted with special dispatch" (37 CFR 1.550(a)). Extensions of time in *ex parte* reexamination proceedings are provided for in 37 CFR 1.550(c).

The Patent Owner is reminded of the continuing responsibility under 37 CFR 1.565(a), to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving U.S. Patent No. 8,032,278 throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

The Patent Owner is reminded that any proposed amendment to the specification and/or claims in the reexamination proceeding must comply with the provisions of 37 C.F.R. § 1.530(d)-(j), must be formally presented pursuant to 37 C.F.R. § 1.52(a) and (b), and must include any fees required by 37 C.F.R. § 1.20(c). See MPEP § 2250(IV) for examples to assist in the preparation of proper amendments in reexamination proceedings.

All correspondence relating to this *ex parte* reexamination proceeding should be directed:

By EFS-Web: Registered Users may submit correspondence via EFS-Web, at https://efs.uspto.gov/efile/myportal/efs-registered.

By Mail to: Mail Stop *Ex Parte* Reexam
Central Reexamination Unit
Commissioner for Patents
United States Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

By FAX to: (571) 273-9900
Central Reexamination Unit

By hand: Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

EFS-Web offers the benefit of quick submission to the particular area of the Office that needs to act on the correspondence. Also, EFS-Web submissions are "soft-scanned" (i.e., electronically uploaded) directly into the official file for the reexamination proceeding, which offers parties the opportunity to review the content of their submission after the "soft scanning" process is complete.

Any inquiry concerning this communication should be directed to the Central Reexamination Unit at telephone number 571-272-7705.

/LUKE S WASSUM/
Primary Examiner, Art Unit 3992

Conferees:

/Stephen J. Ralis/
Primary Examiner, Art Unit 3992

Michael Fuelling /MF/
Supervisory Patent Examiner, AU 3992

lsw
16 March 2021

Notice of References Cited	Application/Control No. 90/014,675	Applicant(s)/Patent Under Reexamination 8032278	
	Examiner Luke S Wassum	Art Unit 3992	Page 1 of 2

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-5081667-A	01-1992	Drori; Ze'ev	B60R25/104	290/38C
*	B	US-5208756-A	05-1993	Song; Han L.	G01S5/0009	340/991
*	C	US-5555498-A	09-1996	Berra; Charles J.	G06F11/2733	701/34.3
*	D	US-5557254-A	09-1996	Johnson; Sam	B60R25/102	340/426.19
*	E	US-5719551-A	02-1998	Flick; Kenneth E.	B60R25/04	180/287
*	F	US-5732074-A	03-1998	Spaur; Charles W.	H04L67/18	370/313
*	G	US-5877724-A	03-1999	Davis; Paul M.	H04W88/02	342/357.4
*	H	US-5940007-A	08-1999	Brinkmeyer; Horst	G07C9/00309	340/12.29
*	I	US-6009363-A	12-1999	Beckert; Richard D.	B60R11/02	307/10.7
*	J	US-6011460-A	01-2000	Flick; Kenneth E.	B60R16/03	180/287
*	K	US-6028537-A	02-2000	Suman; Michael J.	B60K35/00	340/988
*	L	US-6253064-B1	06-2001	Monroe; David A.	G08G5/0082	455/430
*	M	US-20010033225-A1	10-2001	RAZAVI, BEHFAR	H04L67/34	340/425.5

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
*	U	Mateja, Jim "Travetek Makes Mission Possible", Chicago Tribune, 12 April 1992 (Year: 1992)
*	V	Holusha, John "DRIVING SMART: Lost in Yonkers? An Olds Option Could Be a Guide", New York Times, 27 November 1994. (Year: 1994)
*	W	SAE HS-3000 "SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual, 1994. (Year: 1994)
*	X	Space Daily "Trimble Microsoft Launch GPS System for Car PC", http://www.spacedaily.com/news/gps-98a.html, 8 January 1998. (Year: 1998)

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Notice of References Cited	Application/Control No. 90/014,675	Applicant(s)/Patent Under Reexamination 8032278	
	Examiner Luke S Wassum	Art Unit 3992	Page 2 of 2

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-6330499-B1	12-2001	Chou; Paul Bao-Luo	G07C5/008	701/31.4
*	B	US-6346876-B1	02-2002	Flick; Kenneth E.	B60R25/1003	1/1
*	C	US-6430164-B1	08-2002	Jones; Marc T.	H04L29/06	370/313
*	D	US-6611740-B2	08-2003	Lowrey; Larkin Hill	G01M15/04	379/1.01
*	E	US-6606561-B2	08-2003	Flick; Kenneth E.	G08G1/205	701/484
*	F	US-6636790-B1	10-2003	Lightner; Bruce	G01M15/102	701/31.5
*	G	US-6756885-B1	06-2004	Flick; Kenneth E.	B60R25/1018	340/426.1
*	H	US-7149623-B2	12-2006	Flick; Kenneth E.	G07C5/008	701/468
*	I	US-7484008-B1	01-2009	Gelvin; David C.	H04L67/12	709/249
*	J	US-7720597-B2	05-2010	Flick; Kenneth E.	B60R25/102	701/484
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	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
*	U	Spelt, P.F. and A.M. Kirson "A Demonstration Project for the ITS Data Bus Prototype", Proceedings of the 17th DASC. AIAA/IEEE/ SAE Digital Avionics Systems Conference, pp. I22-1 - I22-6, 31 October - 7 November 1998. (Year: 1998)
*	V	CellPort "CellPort Delivers Wireless, Vehicle-Based Applications Platform; Announces CP2100 Mobile Network Server", Press Release, 26 July 1999. (Year: 1999)
*	W	Wright, Maury "Prep for a Multimedia Future", EDN Magazine, pages 79-88, 19 August 1999. (Year: 1999)
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90/014,675	8032278
	Examiner	Art Unit
	Luke S Wassum	3992

CPC - Searched*		
Symbol	Date	Examiner

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
Reviewed Prosecution History of appn 11/773,272, and reexaminations 90/013,587; 90/013,851; 90/014,309; and 90/014,419 .	03/17/2021	lsw

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

Reexamination	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90/014,675	8032278
	Certificate Date	Certificate Number

Requester Correspondence Address: ☐ **Patent Owner** ☑ **Third Party**

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LITIGATION REVIEW ☑	lsw (examiner initials)	18 February 2021 (date)
Case Name		Director Initials
Omega Patents, LLC v. Enfora, Inc, 1:17cv2769 (closed)		
Omega Patents, LLC v. CalAmp Corp., 6:13cv1950 (closed)		

COPENDING OFFICE PROCEEDINGS	
TYPE OF PROCEEDING	**NUMBER**
Ex Parte Reexamination	90/014,419

PE2E SEARCH - Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
L1	1	"8032278".pn.	(US-PGPUB ; USPAT)	OR	ON	ON	2021/03/09 05:03 PM
L2	1	"6611740".pn.	(US-PGPUB ; USPAT)	OR	ON	ON	2021/03/09 05:03 PM
L3	3	("7720597" "7149623" "6606561").pn.	(US-PGPUB ; USPAT)	OR	ON	ON	2021/03/10 10:03 AM
L4	3	("5719551" "6011460" "6756885").pn.	(US-PGPUB ; USPAT)	OR	ON	ON	2021/03/11 07:03 AM
L5	1	"6636790".pn.	(US-PGPUB ; USPAT)	OR	ON	ON	2021/03/11 01:03 PM
L6	7	("5208756" "5555498" "5557254" "5732074" "5877724" "6028537" "6346876").pn.	(US-PGPUB ; USPAT)	OR	ON	ON	2021/03/11 02:03 PM
L7	8	("5208756" "5555498" "5557254" "5732074" "5877724" "6028537" "6346876" "6011460").pn.	(US-PGPUB ; USPAT)	OR	ON	ON	2021/03/11 02:03 PM
L8	5	("6028537" "5732074" "5557254" "5208756" "5877724").pn.	(US-PGPUB ; USPAT)	OR	ON	ON	2021/03/12 10:03 AM
L9	3	("6009363" "7484008" "20010033225").pn.	(US-PGPUB ; USPAT)	OR	ON	ON	2021/03/12 10:03 AM
L10	1	"6330499".pn.	(US-PGPUB ; USPAT)	OR	ON	ON	2021/03/12 03:03 PM
L11	2	("5940007" "6253064").pn.	(US-PGPUB ; USPAT)	OR	ON	ON	2021/03/15 01:03 PM
L12	1	"6430164".pn.	(US-PGPUB ; USPAT)	OR	ON	ON	2021/03/17 01:03 PM

PE2E SEARCH - Search History (Interference)

There are no Interference searches to show.

UNITED STATES PATENT AND TRADEMARK OFFICE

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United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
www.uspto.gov

BIB DATA SHEET

CONFIRMATION NO. 7247

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
90/014,675	02/16/2021	701	3993	CAAMP-001X

APPLICANTS

INVENTORS

8032278, Residence Not Provided;
OMEGA PATENTS, L.L.C., DOUGLASVILLE, GA;
ADD&G- 27975 (Assignee), Winter Springs, FL;
STETINA BRUNDA GARRED & BRUCKER, Aliso Viejo, CA

**** CONTINUING DATA ***************************

This application is a REX of 11/773,272 07/03/2007 PAT 8032278 *
which is a CIP of 11/076,259 03/09/2005 PAT 7720597
which is a CON of 10/383,496 03/07/2003 PAT 7149623
which is a CON of 09/859,972 05/17/2001 PAT 6606561
which claims benefit of 60/264,811 01/29/2001
and claims benefit of 60/258,005 12/22/2000
and claims benefit of 60/251,552 12/06/2000
and claims benefit of 60/252,125 11/20/2000
and claims benefit of 60/236,890 09/29/2000
and claims benefit of 60/246,463 11/07/2000
and claims benefit of 60/222,777 08/03/2000
and claims benefit of 60/205,178 05/17/2000
(*)Data provided by applicant is not consistent with PTO records.

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **** ** SMALL ENTITY **

Foreign Priority claimed ❑ Yes ❑ No 35 USC 119(a-d) conditions met ❑ Yes ❑ No Verified and Acknowledged _____ Examiner's Signature	❑ Met after Allowance _____ Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
				22	3

ADDRESS

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1135 East State Road 434, Suite 3001
Winter Springs, FL 32708
UNITED STATES

TITLE

VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS

FILING FEE RECEIVED		
6300	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	❑ All Fees ❑ 1.16 Fees (Filing) ❑ 1.17 Fees (Processing Ext. of time) ❑ 1.18 Fees (Issue) ❑ Other _____

BIB (Rev. 05/07).

		❑ Credit

Patent Assignment Abstract of Title

Total Assignments: 1

Application #: 11773272 **Filing Dt:** 07/03/2007 **Patent #:** 8032278 **Issue Dt:** 10/04/2011

PCT #: NONE **Intl Reg #:** **Publication #:** US20070279283 **Pub Dt:** 12/06/2007

Inventor: Kenneth E. Flick

Title: VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS

Assignment: 1

Reel/Frame: 019515 / 0350 **Received:** 07/03/2007 **Recorded:** 07/03/2007 **Mailed:** 07/03/2007 **Pages:** 3

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Assignor: FLICK, KENNETH E., MR. **Exec Dt:** 07/02/2007

Assignee: OMEGA PATENTS, L.L.C.
5326 PRESLEY PLACE
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Correspondent: CHRISTOPHER F. REGAN
255 S. ORANGE AVENUE
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ORLANDO, FL 32801

Search Results as of: 02/25/2021 09:22 AM

If you have any comments or questions concerning the data displayed, contact PRD / Assignments at 571-272-3350. v.2.6
Web interface last modified: Jun 26, 2017 v.2.6

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REEXAM CONTROL NUMBER	FILING OR 371 (c) DATE	PATENT NUMBER
90/014,675	02/16/2021	8032278

CONFIRMATION NO. 7247

REEXAMINATION REQUEST NOTICE

STETINA BRUNDA GARRED & BRUCKER
75 Enterprise
Suite 250
Aliso Viejo, CA 92656

OC000000123632097

Date Mailed: 02/25/2021

NOTICE OF REEXAMINATION REQUEST FILING DATE

(Third Party Requester)

Requester is hereby notified that the filing date of the request for reexamination is 02/16/2021, the date that the filing requirements of 37 CFR § 1.510 were received.

A decision on the request for reexamination will be mailed within three months from the filing date of the request for reexamination. (See 37 CFR 1.515(a)).

A copy of the Notice is being sent to the person identified by the requester as the patent owner. Further patent owner correspondence will be the latest attorney or agent of record in the patent file. (See 37 CFR 1.33). Any paper filed should include a reference to the present request for reexamination (by Reexamination Control Number).

cc: Patent Owner
27975
ADD+G - 27975
1135 East State Road 434, Suite 3001
Winter Springs, FL 32708

/tplovelace/

Legal Instruments Examiner
Central Reexamination Unit 571-272-7705; FAX No. 571-273-9900

UNITED STATES PATENT AND TRADEMARK OFFICE

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REEXAM CONTROL NUMBER	FILING OR 371 (c) DATE	PATENT NUMBER
90/014,675	02/16/2021	8032278

CONFIRMATION NO. 7247

REEXAM ASSIGNMENT NOTICE

27975
ADD+G - 27975
1135 East State Road 434, Suite 3001
Winter Springs, FL 32708

OC000000123632099

Date Mailed: 02/25/2021

NOTICE OF ASSIGNMENT OF REEXAMINATION REQUEST

The above-identified request for reexamination has been assigned to Art Unit 3993. All future correspondence to the proceeding should be identified by the control number listed above and directed to the assigned Art Unit.

A copy of this Notice is being sent to the latest attorney or agent of record in the patent file or to all owners of record. (See 37 CFR 1.33(c)). If the addressee is not, or does not represent, the current owner, he or she is required to forward all communications regarding this proceeding to the current owner(s). An attorney or agent receiving this communication who does not represent the current owner(s) may wish to seek to withdraw pursuant to 37 CFR 1.36 in order to avoid receiving future communications. If the address of the current owner(s) is unknown, this communication should be returned within the request to withdraw pursuant to Section 1.36.

NOTICE OF USPTO EX PARTE REEXAMINATION PATENT OWNER STATEMENT WAIVER PROGRAM

The USPTO has implemented a pilot program where, after a reexamination proceeding has been granted a filing date and before the examiner begins his or her review, the patent owner may orally waive the right to file a patent owner's statement. See *"Pilot Program for Waiver of Patent Owner's Statement in Ex Parte Reexamination Proceedings,"* 75 FR 47269 (August 5, 2010). One goal of the pilot program is to reduce the pendency of reexamination proceedings and improve the efficiency of the reexamination process.

Ordinarily when ex parte reexamination is ordered, the USPTO must wait until after the receipt of the patent owner's statement and the third party requester's reply, or after the expiration of the time period for filing the statement and reply (a period that can be as long as 5 to 6 months), before mailing a first determination of patentability. The USPTO's first determination of patentability is usually a first Office action on the merits or a Notice of Intent to Issue Reexamination Certificate (NIRC).

Under the pilot program, the patent owner's oral waiver allows the USPTO to act on the first determination of patentability immediately after determining that reexamination will be ordered, and in a suitable case issue the reexamination order and the first determination of patentability (which could be a NIRC if the claims under reexamination are confirmed) at the same time.

Benefits to the Patent Owner for participating in this pilot program include reduction in pendency.

To participate in this pilot program, Patent Owners may contact the USPTO's Central Reexamination Unit (CRU) at 571-272-7705. The USPTO will make the oral waiver of record in the reexamination file in an interview summary and a copy will be mailed to the patent owner and any third party requester.

cc: Third Party Requester(if any)
STETINA BRUNDA GARRED & BRUCKER
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/tplovelace/

Legal Instruments Examiner
Central Reexamination Unit 571-272-7705; FAX No. 571-273-9900

Litigation Search Report CRU 3999

Reexamination Control No. 90/014,675

To:	NEW REQUEST	**From:**	GRAVES, Monica A.
Location:	OCRU	**Location:**	OCRU
Art Unit:	3999	**Phone:**	2-7253
Date:	18 February 2021	**E-mail:**	monica.graves@uspto.gov

Search Notes

US PATENT NO: 8,032,278 - Litigation Found

1. Performed a KeyCite Search in Westlaw, which retrieves all history on the patent including any litigation.
2. Performed a search on the patent in Lexis CourtLink for any open dockets or closed cases.
3. Performed a search in Lexis in the Federal Courts and Administrative Materials databases for any cases found.
4. Performed a search in Lexis in the IP Journal and Periodicals database for any articles on the patent.
5. Performed a search in Lexis in the news databases for any articles about the patent or any articles about litigation on this patent.

Paper No. 20210218

Citing References (6)

Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**1. Omega Patents, LLC v. Calamp Corp.** 2015 WL 12830497, *1+ , M.D.Fla. , (NO. 613CV1950ORL40DAB) This cause comes before the Court without oral argument on the following: 1. Plaintiff's Motion and Memorandum for Summary Judgment as to Validity, Infringement, Enforceability and... ... the '876 Patent")U.S. Patent No. 6,737,989 ("the '989 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") (collectively, the "patents-in-suit"). (Doc. 1). The patents-in-suit relate to control systems for vehicles with a ...	Dec. 23, 2015	Case		—
Discussed by	**2. Omega Patents, LLC v. Calamp Corp.** 2016 WL 7240311, *1+ , M.D.Fla. , (NO. 613CV1950ORL40DAB) This cause comes before the Court on the following: 1. Defendant CalAmp Corp.'s Motion That U.S. Patent Nos. '876, '885, '727, and '278 Are Not Entitled To Any Priority Date... ... STATES DISTRICT JUDGE This cause comes before the Court on the following:1. Defendant CalAmp Corp.'s Motion That U.S. Patent Nos. '876'885'727, and ' 278 Are Not Entitled To Any Priority Date Earlier Than Their Actual Filing Dates (Doc. 95), filed September 29, 2015; and 2. Plaintiff Omega Patents, LLC's ...	Jan. 13, 2016	Case		—
Cited by	**3. Omega Patents, LLC v. CalAmp Corp.** 2017 WL 4990654, *1+ , M.D.Fla. , (NO. 613CV1950ORL40DCI) This cause is before the Court on Defendant CalAmp's Motion to Vacate the Judgment and Dismiss for Lack of Venue, (Doc. 222), and Plaintiff Omega's Response in Opposition. (Doc.... ... Patent No. 6,346,876 ("the '876 Patent")U.S. Patent No. 6,737,989 U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") (collectively, the "patents-in-suit"). (Doc. 1). Omega attached to its Complaint a Settlement Agreement entered into between Omega ...	Sep. 22, 2017	Case		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Cited by	**4. Omega Patents, LLC v. Calamp Corp.** 2016 WL 7177550, *1 , M.D.Fla. , (NO. 613CV1950ORL40DAB) This cause comes before the Court on the following: 1. Plaintiff Omega Patents, LLC's Motion In Limine (Doc. 94), filed September 29, 2015; and 2. Defendant CalAmp Corp.'s Response... ... the '876 Patent")U.S. Patent No. 6,737,989 ("the '989 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") (collectively, the "patents-in-suit"). (Doc. 1). The patents-in-suit relate to control systems for vehicles with a ...	Jan. 19, 2016	Case		—
Cited by	**5. Omega Patents, LLC v. Calamp Corp.** 2016 WL 7229888, *1 , M.D.Fla. , (NO. 613CV1950ORL40DAB) This cause comes before the Court on the following: 1. Plaintiff's Motion to Bifurcate Issues of Inequitable Conduct and Prosecution Laches (Doc. 93), filed September 29, 2015; and... ... the '876 Patent")U.S. Patent No. 6,737,989 ("the '989 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No.7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") (collectively, the "patents-in-suit"). (Doc. 1). The patents-in-suit relate to control systems for vehicles with a ...	Jan. 05, 2016	Case		—
Cited by	**6. Omega Patents, LLC v. Calamp Corp.** 2015 WL 12830496, *1+ , M.D.Fla. , (NO. 613CV1950ORL40DAB) This cause comes before the Court on the following: 1. Plaintiff's Motion and Memorandum of Law to Exclude the Testimony of Defendant's Expert Eric Andrews (Doc. 55), filed July 1,... ... the '876 Patent")U.S. Patent No. 6,737,989 ("the '989 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") (collectively the "patents-in-suit"). (Doc. 1). The patents-in-suit relate to control systems for vehicles with a ...	Dec. 23, 2015	Case		—

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Citing References (1)

Treatment	Title	Date	Type	Depth	Headnote(s)
Discussed by	**1. EX PARTE OMEGA PATENTS, L.L.C. PATENT OWNER AND APPELLANT** 2019 WL 7184387, *2+ , Patent Tr. & App. Bd. , (NO. APPEAL 2019-006299 , PATENT 6,346,876 B1 , REEXAMINATION CONTRO , TECHNOLOGY CENTER 39) Appellant appeals under 35 U.S.C. §§ 134 and 306 the Examiner's decision to reject claims 1-11, 13-26, 29-32, and 42-50. We have jurisdiction under 35 U.S.C. §§ 134 and 306, and... ... PROCEEDINGS This appeal is said to be related to various proceedings. First, Appellant informs us of two related appeals in connection with reexamination proceedings involving U.S. Patents 8,032,278 ("the '278 patent ") and 5,756,885 ("the '885 patent") Appeal Br. 8-11. {FN2} In the appeal involving the 278 patent in connection with ...	Dec. 04, 2019	Administrative Decision		—

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Citing References (6)

Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**1.** Patent Owner's Appeal Brief Ex Parte OMEGA PATENTS, L.L.C. 2019 WL 8888301, *1+ , Bd.Pat.App. & Interf. (Administrative Filing) , (NO. APP90/014,121) ... CONTENTS I. Real Party in Interest 4 II. Related Appeals, Interferences, and Trials 4 A. Related Appeals 4 1. Appeal in Reexamination 90/013,851 for U.S. Patent No. 8,032,278 resulting in favorable PTAB decision and Reexamination Certificate issued February 6, 2019; 4 2. Appeal in Reexamination 90/014,122 for U.S. Patent ...	July 12, 2019	Administrative Filing		—
Examined by	**2.** Patent Owner's Appeal Brief EX PARTE OMEGA PATENTS, LLC et al. 2019 WL 8587347, *1+ , Bd.Pat.App. & Interf. (Administrative Filing) , (NO. APP90/014,122) ... CONTENTS(1) Real Party In Interest 8(2) Related Appeals, Interferences, And Trials 8 I. Related Appeals 8 A. First Related Appeal (Second Reexamination Of U.S. Patent No. 8,032,278 8 B. Second Related Appeal (Second Reexamination Of U.S. Patent No. 6, 756,885 10 II. Related Trials 11 A. First Trial 11 ...	May 15, 2019	Administrative Filing		—
Examined by	**3.** Patent Owner's Supplemental Appeal Brief Ex Parte Omega Patents, L.L.C. 2018 WL 6257407, *1+ , Patent Tr. & App. Bd. (Administrative Filing) , (NO. APPLICATION90/013851) ... Interferences, and Trials At present there are no related appeals, or interferences. There are two related trials.I. First Trial In the first trial, the ' 278 patent was subject to a litigation between the Requester and the Patent Owner. The Patent Owner filed its complaint alleging patent infringement against the Requester ...	Feb. 27, 2018	Administrative Filing		—
Examined by	**4.** Patent Owner's Appeal Brief Ex Parte Omega Patents, L.L.C. 2018 WL 6257406, *1+ , Patent Tr. & App. Bd. (Administrative Filing) , (NO. APPLICATION90/013851) ... Interferences, and Trials At present there are no related appeals, or interferences. There are two related trials.I. First Trial In the first trial, the ' 278 patent was subject to a litigation between the Requester and the Patent Owner. The Patent Owner filed its complaint alleging patent infringement against the Requester ...	Jan. 17, 2018	Administrative Filing		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**5. Appellants' Appeal Brief** Ex Parte Kenneth E. Flick. 2015 WL 13545129, *1+ , Patent Tr. & App. Bd. (Administrative Filing) , (NO. APPLICATION13/826752) ... al.The Examiner rejected independent Claims 1, 21, 39, 50, 70, and 88 over a four-way combination of U.S. Patent No. 8,362,886 to Flick, U.S. Patent No. 8,032,278 to Flick, Reinold et al., and Fein et al., with two of the four references having common inventorship with the present application ...	Sep. 17, 2015	Administrative Filing		—
Discussed by	**6. Appellant's Reply Brief** Ex Parte OMEGA PATENTS, L.L.C. 2019 WL 8888302, *1+ , Bd.Pat.App. & Interf. (Administrative Filing) , (NO. APP90/014,121) ... has filed follow-on reexamination requests against three other patents of the Patent Owner. And, not content with the PTAB's favorable decision in the second ' 278 patent reexam, Requester has now filed yet a third request for reexamination of the ' 278 patent The following is the list of the reexaminations and ...	Oct. 15, 2019	Administrative Filing		—

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Citing References (1)

Treatment	Title	Date	Type	Depth	Headnote(s)
—	**1.** TOP STORY-FED. CIR.: NEW TRIAL REQUIRED AND DAMAGES VACATED IN REMOTE VEHICLE CONTROL PATENT DISPUTE Although a federal district court's no-invalidity findings were affirmed, reversal of several findings of infringement required vacatur of the over-$15 million damages award and a... ... suit brought by Omega Patents against CalAmp Corp. alleging infringement of Omega's U.S. Patent Nos. 6,346,876 ('876 patent)6,756,885 ('885 patent)7,671,727 ('727 patent), and 8,032,278 ('278 patent) , the...Although a federal district court's no-invalidity findings were affirmed, reversal of several findings of infringement required vacatur of the over-$15 ...	2019	Other Secondary Source	—	—

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Citing References (1)

Treatment	Title	Date	Type	Depth	Headnote(s)
—	**1.** TOP STORY-FED. CIR.: NEW TRIAL REQUIRED AND DAMAGES VACATED IN REMOTE VEHICLE CONTROL PATENT DISPUTE Although a federal district court's no-invalidity findings were affirmed, reversal of several findings of infringement required vacatur of the over-$15 million damages award and a... ... suit brought by Omega Patents against CalAmp Corp. alleging infringement of Omega's U.S. Patent Nos. 6,346,876 ('876 patent)6,756,885 ('885 patent)7,671,727 ('727 patent), and 8,032,278 ('278 patent) , the...Although a federal district court's no-invalidity findings were affirmed, reversal of several findings of infringement required vacatur of the over-$15 ...	2019	Other Secondary Source	—	—

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Citing References (3)

Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**1. Cross-Appellant/Appellee Omega Patents, LLC's Principal and Response Brief** OMEGA PATENTS, LLC, Plaintiff/Cross-Appellant, v. CALAMP CORP., Defendant/Appellant. 2020 WL 4933794, *1+ , Fed.Cir. (Appellate Brief) , (NO. 2020-1793 , 2020-1794) ... Appx14-22) Omega appeals the order awarding post-verdict royalties. CalAmp's appeal involves two of the asserted patents, U.S. Patent Nos. 6,756,885 ("'885 patent") and 8,032,278 ("'278 patent ")There are no current cases in which either of the two patents are being asserted. The '885 patent expired on August 22, 2016 ...	Aug. 21, 2020	Brief		—
Examined by	**2. Opening Brief of Defendant-Appellant Calamp Corp.** OMEGA PATENTS, LLC, Plaintiff-Cross-Appellant, v. CALAMP CORP., Defendant-Appellant. 2020 WL 4048275, *1+ , Fed.Cir. (Appellate Brief) , (NO. 2020-1793 , 2020-1794) ... that CalAmp's Customers Infringed the '885 Patent Should Be Vacated 32 II. CALAMP IS ENTITLED TO JMOL THAT THE ACCUSED LMUs DO NOT INFRINGE THE ' 278 PATENT OR, AT LEAST, A NEW TRIAL 36 A. Omega's Improper Claim Construction Arguments Tainted the Jury's Consideration of the ' 278 Patent 's "Corresponding Vehicle ...	July 13, 2020	Brief		—
Examined by	**3. Corrected Opening Brief of Defendant-Appellant CalAmp Corp.** OMEGA PATENTS, LLC, Plaintiff-Appellee, v. CALAMP CORP., Defendant-Appellant. 2018 WL 2045178, *1+ , Fed.Cir. (Appellate Brief) , (NO. 18-1309) ... Device." 20 II. THE ACCUSED PRODUCTS DO NOT INFRINGE OMEGA'S PATENTS. 21 A. The Accused Products Do Not Satisfy The "Device Codes" Limitations Of The ' 278 '885, And '876 Patents 22 1. The accused products do not use a vehicle device code as required by the ' 278 patent 22 2. The ...	Apr. 25, 2018	Brief		—

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Citing References (3)

Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**1. Cross-Appellant/Appellee Omega Patents, LLC's Principal and Response Brief** OMEGA PATENTS, LLC, Plaintiff/Cross-Appellant, v. CALAMP CORP., Defendant/Appellant. 2020 WL 4933794, *1+ , Fed.Cir. (Appellate Brief) , (NO. 2020-1793 , 2020-1794) ... Appx14-22) Omega appeals the order awarding post-verdict royalties. CalAmp's appeal involves two of the asserted patents, U.S. Patent Nos. 6,756,885 ("'885 patent") and 8,032,278 ("'278 patent ")There are no current cases in which either of the two patents are being asserted. The '885 patent expired on August 22, 2016 ...	Aug. 21, 2020	Brief		—
Examined by	**2. Opening Brief of Defendant-Appellant Calamp Corp.** OMEGA PATENTS, LLC, Plaintiff-Cross-Appellant, v. CALAMP CORP., Defendant-Appellant. 2020 WL 4048275, *1+ , Fed.Cir. (Appellate Brief) , (NO. 2020-1793 , 2020-1794) ... that CalAmp's Customers Infringed the '885 Patent Should Be Vacated 32 II. CALAMP IS ENTITLED TO JMOL THAT THE ACCUSED LMUs DO NOT INFRINGE THE ' 278 PATENT OR, AT LEAST, A NEW TRIAL 36 A. Omega's Improper Claim Construction Arguments Tainted the Jury's Consideration of the ' 278 Patent 's "Corresponding Vehicle ...	July 13, 2020	Brief		—
Examined by	**3. Corrected Opening Brief of Defendant-Appellant CalAmp Corp.** OMEGA PATENTS, LLC, Plaintiff-Appellee, v. CALAMP CORP., Defendant-Appellant. 2018 WL 2045178, *1+ , Fed.Cir. (Appellate Brief) , (NO. 18-1309) ... Device." 20 II. THE ACCUSED PRODUCTS DO NOT INFRINGE OMEGA'S PATENTS. 21 A. The Accused Products Do Not Satisfy The "Device Codes" Limitations Of The ' 278 '885, And '876 Patents 22 1. The accused products do not use a vehicle device code as required by the ' 278 patent 22 2. The ...	Apr. 25, 2018	Brief		—

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Citing References (22)

Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**1. Declaration of Eric Andrews in Support of Defendant Calamp Corp.'s Motion for Summary Judgment of Noninfringement** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 12856650, *1+ , M.D.Fla. (Expert Report and Affidavit) , (NO. 613-CV-1950-PGB-DAB) ... asserted patents in this matter, U.S. Patent Nos. 6,346,876 (the '876 patent)6,737,969 (the '969 patent)6,756,885 (the '885 patent)7,671,727 (the '727 patent), and 8,032,278 (the '278 patent) along with the file histories for the asserted patents. I am informed that copies of the asserted patents were attached as Exhibits ...	July 01, 2015	Expert Materials		—
Examined by	**2. Expert Report of Eric Andrews Regarding Invalidity** OMEGA PATENTS, LLC., v. CALAMP CORP. 2015 WL 12856648, *1+ , M.D.Fla. (Expert Report and Affidavit) , (NO. 613-CV-01950-PGB-DAB) ... over '074 Spaur and SAE J1979 78 6.7 Invalidity of '727 over NeoTech Mobile-Trak II and SAE J1979 90 6.8 Invalidity of ' 278 over '392 Bambini and SAE J1978 100 6.9 Invalidity of ' 278 over '074 Spaur 154 1. Introduction I have been advised that there is ...	Apr. 15, 2015	Expert Materials		—
Examined by	**3. Plaintiff's Motion and Memorandum for Judgment of Infringement of Vpod Units under Rule 59** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2019 WL 8331710, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL40DCI) ... material respects to the Infringing LMUs. On September 30, 2019, the jury returned a verdict in favor of Omega finding the LMU products directly infringe U.S. Patent No. 8,032,278 ("the '278 Patent ") However, contrary to the undisputed evidence, the jury found the identically-functioning VPODs somehow did not infringe the ' 278 ...	Dec. 23, 2019	Motion		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**4. Calamp Corp.'s Combined Motion for Judgment as a Matter of Law, for a New Trial, and for a Remittitur of Damages** OMEGA PATENTS, LLC, Plaintiff, v. CALAMP CORP., Defendant. 2019 WL 8331711, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 6:13-CV-1950-PGB-DCI) ... CalAmp's accused LMU-3000, LMU-3030, and LMU-3050 products ("the Accused LMUs") do not directly infringe U.S. Patent Nos. 6,756,885 ("the '885 patent") and 8,032,278 ("the '278 patent ")[FN1] The jury's contrary findings of direct infringement for the '885 patent (by CalAmp's customers) and the ' 278 patent (by CalAmp) not ...	Dec. 23, 2019	Motion		—
Examined by	**5. Plaintiff's Motion and Memorandum for an Award of Attorneys Fees** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2019 WL 8331712, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL40DCI) ... the claims of U.S. Patent No. 6,346,876 ("the '876 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") The totality of CalAmp's actions render this case an exceptional case under 35 U.S.C. § 285 and support an ...	Dec. 23, 2019	Motion		—
Examined by	**6. Plaintiff's Reply in Support of Its Motion for Summary Judgment as to Validity, Infringement, Enforceability, and Unfair Competition** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 10478030, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL40DAB) ... signals" and "device code." (Doc. 76, p. 7.) In response to Omega's motion for validity, Calamp first argues (contrary to its own expert) that the ' 278 patent is anticipated. Calamp then argues (without evidence) that one of skill in the art would combine the disparate references[FN2] using the patent claims ...	Aug. 03, 2015	Motion		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Examined by	**7. Plaintiff's Motion and Memorandum for Summary Judgment As to Validity, Infringement, Enforceability and Unfair Competition** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 7687819, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL31DAB) ... of infringement of five patents: U.S. Patent Nos. 6,346,876 ("the '876 patent")6,737,989 ("the '989 Patent")6,756,885 ("the '885 patent")7,671,727 ("the '727 Patent"); and 8,032,278 ("the '278 patent ") (collectively referred to herein as the "patents-in-suit" and attached as Exhibits 1-5 in the Appendix). [FN1] In this motion ...	July 01, 2015	Motion		—
Examined by	**8. Defendant CalAmp Corp.'s Opening Claim Construction Brief** OMEGA PATENTS, LLC, a Georgia Limited Liability Company, Plaintiff, v. CALAMP CORP., a Delaware Corporation, Defendant. 2014 WL 7691270, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV01950PGBDAB) ... in this case: U.S. Pat. Nos. 6,346,876 ("the #876 patent"); 6,737,989 ("the #989 patent"); 6,756,885 ("the #885 patent"); 7,671,727 ("the #727 patent"); and 8,032,278 ("The # 278 patent The following tree shows the inter-relation between the patents-in-suit (shown in bold):TABLE The patents-in-suit are all based on ...	Sep. 05, 2014	Motion		—
Examined by	**9. Defendant Enfora, Inc.'s Memorandum of Law in Support of its Motion for a Stay Pending Reexamination** OMEGA PATENTS, LLC, a Georgia Limited Liability Company, Plaintiff, v. ENFORA, INC., a Delaware Corporation, Defendant. 2017 WL 7048395, *1+ , N.D.Ga. (Trial Motion, Memorandum and Affidavit) , (NO. 1:17-CV-02769-TWT) ... any scheduling orders or set a Markman hearing or trial date.B. The Asserted Patents In its FAC, Plaintiff asserts infringement of three patents: (1) U.S. Patent No. 8,032,278 (the "#278 Patent "), (2) U.S. Patent No. 6,756,885 (the "#885 Patent"), and (3) U.S. Patent No. 6,346,876 (the "#876 Patent") Dkt. No ...	Nov. 13, 2017	Motion		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Discussed by	**10. Calamp Corp.'s First Amended Counterclaim** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff/Counterdefendant, v. CALAMP CORP., a Delaware corporation, Defendant/ Counterplainti... 2014 WL 11209166, *1+ , M.D.Fla. (Trial Pleading) , (NO. 6:13-CV-1950-GAP-DAB) ... real, and justiciable controversy exists between Counterclaimant CalAmp and Counterdefendant Omega pertaining to U.S. Patent Nos. 6,346,876 B1 6,737,989 B2 6,756,885 B1 7,671,727 B2; and 8,032,278 B2 ("Patents-in-Suit "), which have been asserted by Omega.FACTS The Patents-in-Suit 7. On December 20, 2013, Plaintiff/Counterdefendant Omega filed a ...	Feb. 24, 2014	Petition		—
Discussed by	**11. Plaintiff's Motion and Memorandum for a New Trial on Willfulness under Rule 59** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2019 WL 8331709, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL40DCI) ... the claims of U.S. Patent No. 6,346,876 ("the '876 Patent")U.S. Patent No. 6,756,885 ("the '885 Patent")U.S. Patent No. 7,671,727 ("the '727 Patent"), and U.S. Patent No. 8,032,278 ("the '278 Patent ") The first trial of this matter began on February 16, 2016, and concluded on February 24, 2016, (Dkt. 178 ...	Dec. 23, 2019	Motion		—
Discussed by	**12. Defendant Calamp Corp.'s Motion for Summary Judgment of Noninfringement** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 10477983, *1+ , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 6:13-CV-1950-PGB-DAB) ... 876 and '885) directed toward the vehicle bus claim priority back to an alarm system patent, while the other two vehicle bus patents ('727 and ' 278) and the vehicle tracking patent ('989) claim priority back to a plethora of provisional patents generally regarding vehicle tracking. Because of their common lineage, the ...	July 01, 2015	Motion		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Discussed by	**13. Defendant Enfora, Inc.'s Reply Memorandum in Support of Its Motion for a Stay Pending Reexamination** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. ENFORA, INC., a Delaware Corporation, Defendant. 2017 WL 7735654, *1+ , N.D.Ga. (Trial Motion, Memorandum and Affidavit) , (NO. 1:17-CV-02769-TWT) ... await the final determinations of the USPTO and the issuance of the reexamination certificates.FN1. Omega asserts infringement of three patents in its FAC: (1) U.S. Patent No. 8,032,278 (the "'278 Patent "), (2) U.S. Patent No. 6,756,885 (the "'885 Patent"), and (3) U.S. Patent No. 6,346,876 (the "'876 Patent")As noted ...	Dec. 11, 2017	Motion		—
Cited by	**14. Defendant Calamp Corp.'s Answer to Plaintiff's Complaint, Counterclaim, and Jury Demand** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2014 WL 11621847, *1+ , M.D.Fla. (Trial Pleading) , (NO. 6:13-CV-1950-GAP-DAB) ... real, and justiciable controversy exists between Counterclaimant CalAmp and Counterdefendant Omega pertaining to U.S. Patent Nos. 6,346,876 B1 6,737,989 B2 6,756,885 B1 7,671,727 B2; and 8,032,278 B2 ("Patents-in-Suit "), which have been asserted by Omega.Facts 7. On December 20, 2013, Plaintiff/Counter-Defendant Omega filed a Complaint in this ...	Jan. 15, 2014	Petition		—
Cited by	**15. Declaration of Eric Andrews in Support of Defendant Calamp Corp.'s Motion for Summary Judgment of Invalidity** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 12856649, *1+ , M.D.Fla. (Expert Report and Affidavit) , (NO. 613-CV-1950-PGB-DAB) ... asserted patents in this matter, U.S. Patent Nos. 6,346,876 (the '876 patent)6,737,989 (the '989 patent)6,756,885 (the '885 patent)7,671,727 (the '727 patent), and 8,032,278 (the '278 patent) I am informed that copies of the asserted patents were attached as Exhibits B-F to the Complaint (ECF 1) in this ...	July 01, 2015	Expert Materials		—
Cited by	**16. Defendant Calamp Corp.'s Motion for Summary Judgment of Invalidity** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 10478022, *1 , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 6:13-CV-1950-PGB-DAB)	July 01, 2015	Motion		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Cited by	**17. Joint Pretrial Statement** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2015 WL 10477832, *1+ , M.D.Fla. (Trial Filing) , (NO. 613CV1950ORL40DAB) ... Nos. 6,346,876 B1 ("the '876 Patent"); 6,737,989 B2 ("the '989 Patent); 6,756,885 B1 ("the '885 Patent"); 7,671,727 B2 ("the '727 Patent"); and 8,032,278 B2 ("the ' 278 Patent CalAmp filed counterclaims seeking declaratory judgment of noninfringement, invalidity and unenforceability, as well as asserting a claim for unfair competition.III. BRIEF GENERAL STATEMENT ...	Sep. 22, 2015	Filing		—
Cited by	**18. Verdict Form** OMEGA PATENTS, LLC, Plaintiff, v. CALAMP CORP., Defendant. 2016 WL 1287121, *1+ , M.D.Fla. (Verdict, Agreement and Settlement) , (NO. 613CV1950ORL40DAB) ... Claim 10[] No[] No[] No[] No[] No[X] Yes[X] Yes[X] Yes[X] Yes[X] Yes[X] Yes Claim 11[] No[] No[] No[] No[] No 2.D. U.S. Patent No. 8,032,278 B2 ("the '278 patent "Has Omega proven by a preponderance of the evidence that any of the accused CalAmp devices infringed any ...	Feb. 24, 2016	Jury Verdict		—
Mentioned by	**19. Omega Patents, Llc's Motion and Memorandum to Dismiss Counterclaims** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2014 WL 11209189, *1 , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL31DAB) ... Court as follows:On December 20, 2013, Omega filed its Complaint, which alleges infringement of five patents (U.S. Patent Nos. 6,346,876 6,737,989 6,756,885 7,671,727 and 8,032,278). (Doc. 1 .) Calamp filed a counterclaim, including claims for patent unenforceability due to alleged inequitable conduct and another for unfair competition derived from the same ...	Feb. 05, 2014	Motion		—
Mentioned by	**20. Omega Patents, LLC's Motion and Memorandum to Dismiss Counterclaims** OMEGA PATENTS, LLC, a Georgia limited liability company, Plaintiff, v. CALAMP CORP., a Delaware corporation, Defendant. 2014 WL 11621911, *1 , M.D.Fla. (Trial Motion, Memorandum and Affidavit) , (NO. 613CV1950ORL31DAB) ... Court as follows:On December 20, 2013, Omega filed its Complaint, which alleges infringement of five patents (U.S. Patent Nos. 6,346,876 6,737,989 6,756,885 7,671,727 and 8,032,278). (Doc. 1 .) Calamp filed a counterclaim, including claims for patent unenforceability due to alleged inequitable conduct and another for unfair competition derived from the same ...	Feb. 05, 2014	Motion		—

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Treatment	Title	Date	Type	Depth	Headnote(s)
Mentioned by	**21. Plaintiff's Memorandum in Opposition to Enfora, Inc.'s Motion to Stay (Doc. No. 34)** OMEGA PATENTS, LLC, a Georgia Limited Liability Company, Plaintiff, v. ENFORA, INC., a Delaware Corporation, Defendant. 2017 WL 7037864, *1 , N.D.Ga. (Trial Motion, Memorandum and Affidavit) , (NO. 1:17-CV-02769-TWT) ... information gleaned from the first action, Omega filed a second action in Georgia against Enfora, based on the infringement of U.S. Patent Nos. 6,346,876 7,671,727 8,032,278 , and 8,362,886 by the MT-3000 and MT-3050 products. The parties litigated both cases for several more months before Omega dismissed the Florida action ...	Nov. 27, 2017	Motion		—
Mentioned by	**22. Plaintiff's Memorandum in Opposition to Enfora, Inc.'s Motion to Dismiss (Doc. No. 28)** OMEGA PATENTS, LLC, a Georgia Limited Liability Company, Plaintiff, v. ENFORA, INC., a Delaware Corporation, Defendant. 2017 WL 7037862, *1 , N.D.Ga. (Trial Motion, Memorandum and Affidavit) , (NO. 1:17-CV-02769-TWT) ... what to do with its accused products. The parties agreed that Omega's infringement claims against Enfora's accused products based on U.S. Patent Nos. 6,346,876 7,671,727 8,032,278 , and 8,362,886 (referred to as the "Georgia Patents-in-Suit") could be restarted and damages that accrued during the period could be claimed by Omega ...	Nov. 13, 2017	Motion		—

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Citing References (49)

Treatment	Title	Date	Type	Depth	Headnote(s)
—	**1. REMOTE VEHICLE SYSTEM CONFIGURATION, CONTROL, AND TELEMATICS** Out Of Pass US PAT 10720045 , U.S. PTO Utility A vehicle control system (VCS) includes external communication interfaces, such as a Bluetooth interface, for communicating with a user communication and control device, such as a... ... States US 7898404 B2 2011/03 Flick cited by applicant US United States US 7899592 B2 2011/03 Yaqub cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8061626 B2 2011/11 Flick cited by applicant US United States US 8090499 ...	July 21, 2020	Patents	—	—
—	**2. SYSTEMS AND METHODS FOR RADIO ACCESS INTERFACES** Out Of Pass US PAT 10645551 , U.S. PTO Utility Systems and methods for radio access interfaces in accordance with embodiments of the invention are disclosed. In one embodiments, a vehicle telematics device includes a processor,... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8065342 B1 2011/11 Borg et al.cited by applicant US United States ...	May 05, 2020	Patents	—	—
—	**3. SYSTEMS AND METHODS FOR FAILSAFE FIRMWARE UPGRADES** Out Of Pass US PAT 10599421 , U.S. PTO Utility Systems and methods for failsafe firmware upgrades in accordance with embodiments of the invention are disclosed. One embodiment includes a vehicle telematics device, including: a... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8155841 B2 2012/04 Erb cited by applicant US United States US 8330626 ...	Mar. 24, 2020	Patents	—	—
—	**4. SYSTEMS AND METHODS FOR TRACKING MULTIPLE COLLOCATED ASSETS** Out Of Pass US PAT 10473750 , U.S. PTO Utility Systems and methods for locating collocated assets in accordance with embodiments of the invention are disclosed. In one embodiment of the invention, an asset tracking device... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8065342 B1 2011/11 Borg et al.cited by applicant US United States ...	Nov. 12, 2019	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**5. SYSTEMS AND METHODS FOR LOW LATENCY 3-AXIS ACCELEROMETER CALIBRATION** Out Of Plan US PAT 10466269 , U.S. PTO Utility Systems and methods for low-latency calibration of the alignment of 3-axis accelerometers in accordance embodiments of the invention are disclosed. In one embodiment of the... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8155841 B2 2012/04 Erb cited by applicant US United States US 8489271 ...	Nov. 05, 2019	Patents	—	—
—	**6. SYSTEMS AND METHODS FOR CRASH DETERMINATION WITH NOISE FILTERING** Out Of Plan US PAT 10395438 , U.S. PTO Utility Embodiments of the invention include a vehicle telematics system including a telematics device and a remote server system, wherein the telematics device obtains sensor data from at... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8155841 B2 2012/04 Erb cited by applicant US United States US 8489271 ...	Aug. 27, 2019	Patents	—	—
—	**7. TELEMATICS ROAD READY SYSTEM WITH USER INTERFACE** Out Of Plan US PAT 10388161 , U.S. PTO Utility A system for monitoring a trailer includes a plurality of wireless sensors mounted to a trailer for monitoring conditions of the trailer; a master control unit attached to an... ... 8000843 B2 2011/08 Kim cited by applicant US United States US 8010127 B2 2011/08 Burtner et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8223009 B2 2012/07 Anderson et al.cited by applicant US United States ...	Aug. 20, 2019	Patents	—	—
—	**8. SYSTEMS AND METHODS FOR DETERMINING VEHICLE OPERATIONAL STATUS** Out Of Plan US PAT 10304264 , U.S. PTO Utility Systems and methods for determining vehicle operational status in accordance with embodiments of the invention are disclosed. In one embodiment, a vehicle status determination... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8489271 B2 2013/07 Hergesheimer et al.cited by applicant US United States ...	May 28, 2019	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**9. SYSTEMS AND METHODS FOR IMPACT DETECTION WITH NOISE ATTENUATION OF A SENSOR SIGNAL** Ont Of Plan US PAT 10214166 , U.S. PTO Utility Systems and methods for impact detection in accordance with embodiments of the invention are disclosed. In one embodiment, a vehicle impact detection system includes an... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8155841 B2 2012/04 Erb cited by applicant US United States US 8489271 ...	Feb. 26, 2019	Patents	—	—
—	**10. SYSTEMS AND METHODS FOR RADIO ACCESS INTERFACES** Ont Of Plan US PAT 10219117 , U.S. PTO Utility Systems and methods for radio access interfaces in accordance with embodiments of the invention are disclosed. In one embodiments, a vehicle telematics device includes a processor,... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8330626 B1 2012/12 Adelson cited by applicant US United States US 8489271 ...	Feb. 26, 2019	Patents	—	—
—	**11. VEHICLE SYSTEM INCLUDING SECURITY UNIT PROVIDING DEGRADATION COMMANDS VIA A VEHICLE DATA BUS AND RELATED METHODS** Ont Of Plan US PAT 10180689+ , U.S. PTO Utility A vehicle security unit is for a vehicle including at least one data communications bus, an On-Board Diagnostic (OBD) port coupled to the at least one data communications bus, and... ... 5252966 A 1993/10 Lambropoulos et al.cited by applicant US United States US 6011460 A 2000/01 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 9656631 B1 2017/05 Flick cited by applicant US United States US 2009 ...	Jan. 15, 2019	Patents	—	—
—	**12. MOBILE HYBRID TRANSMIT/RECEIVE NODE FOR NEAR-FIELD WIRELESS POWER DELIVERY** Ont Of Plan US PAT 10181729 , U.S. PTO Utility A system and method for a mobile hybrid transmitter/receiver (TX/RX) node for wireless resonant power delivery is disclosed. A hybrid TX/RX can be configured to travel to remote,... ... 6087806 A 2000/07 Fujioka cited by applicant US United States US 6980000 B2 2005/12 Wong et al.cited by applicant US United States US 8032278 B2 2011/10 Flick 362/104 B60R 25/04 cited by examiner US United States US 8143746 B2 2012/03 Marzetta et al.cited ...	Jan. 15, 2019	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**13. SYSTEMS AND METHODS FOR EFFICIENT CHARACTERIZATION OF ACCELERATION EVENTS** Out Of Plan US PAT 10107831 , U.S. PTO Utility Systems and methods for the efficient characterization of acceleration events in accordance embodiments of the invention are disclosed. In one embodiment of the invention, an... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8489271 B2 2013/07 Hergesheimer et al.cited by applicant US United States ...	Oct. 23, 2018	Patents	—	—
—	**14. SYSTEMS AND METHODS FOR LOCATION REPORTING OF DETECTED EVENTS IN VEHICLE OPERATION** Out Of Plan US PAT 10102689 , U.S. PTO Utility Systems and methods for location reporting of detected events during vehicle operation in accordance embodiments of the invention are disclosed. In one embodiment of the invention,... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8489271 B2 2013/07 Hergesheimer et al.cited by applicant US United States ...	Oct. 16, 2018	Patents	—	—
—	**15. TELEMATICS ROAD READY SYSTEM** Out Of Plan US PAT 10093232 , U.S. PTO Utility A system for monitoring a trailer having a plurality of light emitting diode devices includes a master control unit attached to an outside surface of the trailer. The master... ... 8000843 B2 2011/08 Kim cited by applicant US United States US 8010127 B2 2011/08 Burtner et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8223009 B2 2012/07 Anderson et al.cited by applicant US United States ...	Oct. 09, 2018	Patents	—	—
—	**16. SYSTEMS AND METHODS FOR CRASH DETERMINATION** Out Of Plan US PAT 10055909 , U.S. PTO Utility Systems and methods for crash determination in accordance with embodiments of the invention are disclosed. In one embodiment, a vehicle telematics device includes a processor and a... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8155841 B2 2012/04 Erb cited by applicant US United States US 8489271 ...	Aug. 21, 2018	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**17. REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Out Of Plan US PAT 9981615+ , U.S. PTO Utility A remote function control system for a vehicle including a data communications bus extending throughout the vehicle and coupled to vehicle devices may include a wireless data bus... ... Flick 701/002 cited by examiner US United States US 7818097 B2 2010/10 Fein et al.701/001 cited by examiner US United States US 8032278 B2 2011/10 Flick 701/036 cited by examiner US United States US 8269601 B2 2012/09 Burzio 340/005.6 cited by examiner ...	May 29, 2018	Patents	—	—
—	**18. REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Out Of Plan US PAT 9981616+ , U.S. PTO Utility A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... States US 7818097 B2 2010/10 Fein cited by applicant US United States US 7734382 B2 2010/11 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick 382/104 B60R 25/04 cited by examiner US United States US 8269601 B2 2012/09 Burzio cited by applicant ...	May 29, 2018	Patents	—	—
—	**19. REMOTE FUNCTION CONTROL SYSTEM WITH REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Out Of Plan US PAT 9925956+ , U.S. PTO Utility A remote function control system is for a vehicle including a data bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired vehicle... ... Flick 340/426.1 B60R 25/1004 cited by examiner US United States US 7010402 B2 2006/03 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8362886 B2 2013/01 Flick cited by applicant US United States US 9656631 ...	Mar. 27, 2018	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**20. REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Out Of Plan US PAT 9919682+ , U.S. PTO Utility A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... Flick 340/426.1 B60R 25/1004 cited by examiner US United States US 7010402 B2 2006/03 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8362886 B2 2013/01 Flick cited by applicant US United States US 9656631 ...	Mar. 20, 2018	Patents	—	—
—	**21. MULTI-CONTROLLER DATA BUS ADAPTOR OPERABLE BASED UPON DATA BUS ADAPTOR COMMUNICATION DETERMINED ADAPTOR CODES AND RELATED METHODS** Out Of Plan US PAT 9797183 , U.S. PTO Utility A remote control system may be for a vehicle including a data communications bus and connecting vehicle devices. The vehicle devices may be operable with a set of vehicle device... ... 16/03 cited by examiner US United States US 6756885 B1 2004/06 Flick 180/287 B60R 25/04 cited by examiner US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8362886 B2 2013/01 Flick cited by applicant US United States US 2001 ...	Oct. 24, 2017	Patents	—	—
—	**22. REMOTE FUNCTION CONTROL SYSTEM WITH WIRELESS DATABUS DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Out Of Plan US PAT 9656631+ , U.S. PTO Utility A remote function control system is for a vehicle including a data communications bus and coupled to a plurality of vehicle devices, and a wired electrical power system. A wireless... ... Flick cited by applicant US United States US 7463132 B2 2008/12 Deng 340/005.2 G07C 9/00563 cited by examiner US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8362886 B2 2013/01 Flick cited by applicant US United States US 2005 ...	May 23, 2017	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**23. SYSTEMS AND METHODS FOR DETERMINING VEHICLE OPERATIONAL STATUS** Out Of Plan US PAT 9644977 , U.S. PTO Utility Systems and methods for determining vehicle operational status in accordance with embodiments of the invention are disclosed. In one embodiment, a vehicle status determination... ... 2011/08 Forrest et al.cited by applicant US United States US 8010251 B2 2011/08 Hamrick et al.cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8489271 B2 2013/07 Hergesheimer et al.cited by applicant US United States ...	May 09, 2017	Patents	—	—
—	**24. MULTI-CONTROLLER DATA BUS ADAPTOR OPERABLE BASED UPON CONTROLLER DOWNLOADED ADAPTOR CODES AND RELATED METHODS** Out Of Plan US PAT 9582991 , U.S. PTO Utility A remote control system may be for a vehicle including a data communications bus extending throughout the vehicle and connecting vehicle devices. The vehicle devices may be... ... States US 6346876 B1 2002/02 Flick cited by applicant US United States US 6756885 B1 2004/06 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8362886 B2 2013/01 Flick cited by applicant US United States US 2007 ...	Feb. 28, 2017	Patents	—	—
—	**25. REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Out Of Plan US PAT 9527478+ , U.S. PTO Utility A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... States US 7734382 B2 2010/06 Flick cited by applicant US United States US 7818097 B2 2010/10 Fein cited by applicant US United States US 8032278 B2 2011/10 Flick 382/104 B60R 25/04 cited by examiner US United States US 8269601 B2 2012/09 Burzio cited by applicant ...	Dec. 27, 2016	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**26. SYSTEMS AND METHODS FOR COLLECTING INFORMATION FROM VEHICLE DEVICES VIA A VEHICLE DATA BUS** Out Of Plan US PAT 9171460 , U.S. PTO Utility Systems and methods in accordance with embodiments of the invention continuously collecting information via a vehicle data bus, store the information in a database, and retrieve... ... 7250850 B2 2007/07 Mizutani 340/435 cited by examiner US United States US 7671727 B2 2010/03 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 2012/0158211 A1 2012/06 Chen et al.cited by applicant Other Publications ...	Oct. 27, 2015	Patents	—	—
—	**27. SYSTEM INCLUDING VEHICLE LOCATION ALERT BASED COMMUNICATION WITH A VEHICLE AUDIO ENTERTAINMENT SYSTEM AND RELATED METHODS** Out Of Plan US PAT 9159233+ , U.S. PTO Utility A system for a vehicle having a data communications bus extending throughout the vehicle, and an audio entertainment system coupled to the data communications bus may include a... ... 2007/12 Schofield et al.701/001 cited by examiner US United States US 7898404 B2 2011/03 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 2002/0130769 A1 2002/09 Yamagishi 340/426 cited by examiner US United ...	Oct. 13, 2015	Patents	—	—
—	**28. VEHICLE WITH AT LEAST ONE ENVIRONMENT DETECTION SYSTEM** Out Of Plan US PAT 9111452 , U.S. PTO Utility A vehicle is equipped with at least one environment detection system, a communication system which transmits information by remote transmission to receivers external to the... ... Sakata et al.382/159 cited by examiner US United States US 7983802 B2 2011/07 Breed 701/001 cited by examiner US United States US 8032278 B2 2011/10 Flick 701/036 cited by examiner US United States US 8229663 B2 2012/07 Zeng et al.701/301 cited by ...	Aug. 18, 2015	Patents	—	—
—	**29. COMMUNICATION DEVICE AND CAR FINDER SYSTEM** Out Of Plan US PAT 9037081 , U.S. PTO Utility A car finder system has a portable terminal that receives a preset operation performed thereon for wirelessly transmitting a preset car finder instruction. A communication device... ... et al.340/988 cited by examiner US United States US 7885603 B2 2011/02 Santavicca 455/041.2 cited by examiner US United States US 8032278 B2 2011/10 Flick 701/036 cited by examiner US United States US 8232897 B2 2012/07 Tieman et al.340/990 cited by ...	May 19, 2015	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**30. SYSTEM INCLUDING VEHICLE SPEED ALERT BASED COMMUNICATION WITH A VEHICLE AUDIO ENTERTAINMENT SYSTEM AND RELATED METHODS** Out Of Pat. US PAT 9031546+ , U.S. PTO Utility A system for a vehicle having a data communications bus extending throughout the vehicle, and an audio entertainment system coupled to the data communications bus may include a... ... 2011/03 Flick cited by applicant US United States US 7952512 B1 2011/05 Delker et al.342/042 cited by examiner US United States US 8032278 B2 2011/10 Flick cited by applicant US United States US 8212691 B2 2012/07 Pudar 340/988 cited by examiner US United States ...	May 12, 2015	Patents	—	—
—	**31. SYSTEMS AND METHODS FOR COLLECTING INFORMATION FROM VEHICLE DEVICES VIA A VEHICLE DATA BUS** Out Of Pat. US PAT 8812173 , U.S. PTO Utility Systems and methods in accordance with embodiments of the invention continuously collect information from vehicle devices via a vehicle data bus, store information in a database,... ... 7250850 B2 2007/07 Mizutani 340/435 cited by examiner US United States US 7671727 B2 2010/03 Flick cited by applicant US United States US 8032278 B2 2011/10 Flick cited by applicant Other Publications:Road vehicles---Diagnostic System---Part 2: Carb requirements for interchange of digital information, ISO 9141 ...	Aug. 19, 2014	Patents	—	—
—	**32. VEHICLE SYSTEM INCLUDING REMOTE START DATA BUS COMMAND SENDING BASED UPON A SHORT-RANGE LINK AND RELATED METHODS** Out Of Pat. US PAT APP 20190143935 , U.S. PTO Application A vehicle system for a vehicle may include a vehicle tracking unit that includes a first bus interface to be coupled to a first data communications bus of the vehicle, a vehicle... ... 59#, and have multi-vehicle capability so that the remote start unit can interface with different vehicles, as disclosed in U.S. Patent Nos. 6,011,460 and 8,032,278 , for example, the entire contents of which are hereby incorporated herein by reference. Of course, remote start capability could also be included within the vehicle ...	May 16, 2019	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**33.** VEHICLE SYSTEM INCLUDING SECURITY UNIT PROVIDING DEGRADATION COMMANDS VIA A VEHICLE DATA BUS AND RELATED METHODS Out Of Plan US PAT APP 20180050660 , U.S. PTO Application A vehicle security unit is for a vehicle including at least one data communications bus, an On-Board Diagnostic (OBD) port coupled to the at least one data communications bus, and... ... 59#, and have multi-vehicle capability so that the remote start unit can interface with different vehicles, as disclosed in U.S. Pat. Nos. 6,011,460 and 8,032,278 , for example, the entire contents of which are hereby incorporated herein by reference. Of course, remote start capability could also be included within the vehicle ...	Feb. 22, 2018	Patents	—	—
—	**34.** REMOTE FUNCTION CONTROL SYSTEM WITH REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan US PAT APP 20170197587 , U.S. PTO Application A remote function control system is for a vehicle including a data bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired vehicle... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 23 may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	July 13, 2017	Patents	—	—
—	**35.** REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan US PAT APP 20170197588 , U.S. PTO Application A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 23 may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	July 13, 2017	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**36. REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Ont Of Plan US PAT APP 20150291109 , U.S. PTO Application A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 23# may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	Oct. 15, 2015	Patents	—	—
—	**37. REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Ont Of Plan US PAT APP 20150246658 , U.S. PTO Application A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 23# may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	Sep. 03, 2015	Patents	—	—
—	**38. SYSTEM INCLUDING VEHICLE LOCATION ALERT BASED COMMUNICATION WITH A VEHICLE AUDIO ENTERTAINMENT SYSTEM AND RELATED METHODS** Ont Of Plan US PAT APP 20140266811 , U.S. PTO Application A system for a vehicle having a data communications bus extending throughout the vehicle, and an audio entertainment system coupled to the data communications bus may include a... ... vehicle 211 or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 217 may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	Sep. 18, 2014	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**39. SYSTEM INCLUDING VEHICLE SPEED ALERT BASED COMMUNICATION WITH A VEHICLE AUDIO ENTERTAINMENT SYSTEM AND RELATED METHODS** Ov. of Pats. US PAT APP 20140274012 , U.S. PTO Application A system for a vehicle having a data communications bus extending throughout the vehicle, and an audio entertainment system coupled to the data communications bus may include a... ... vehicle 211 or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 217 may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	Sep. 18, 2014	Patents	—	—
—	**40. REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Ov. of Pats. US PAT APP 20140277838 , U.S. PTO Application A remote function control system for a vehicle including a data communications bus extending throughout the vehicle and coupled to vehicle devices may include a wireless data bus... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi-vehicle compatible controller 23# may be found in U.S. Pat. No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional programming ...	Sep. 18, 2014	Patents	—	—
—	**41. REMOTE FUNCTION CONTROL SYSTEM WITH REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Ov. of Pats. CA PAT 2951679 C A remote function control system is for a vehicle including a data bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired vehicle... ... vehicle or may be removed from the vehicle for 9 programming. Further details of programming a multi-vehicle compatible controller 23 may be found in U.S. Patent No. 8,032,278 to Flick, assigned to the present assignee, 11 and the entire contents of which are herein incorporated by reference. Other or 12 ...	Feb. 09, 2021	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**42.** VEHICLE SYSTEM INCLUDING SECURITY UNIT PROVIDING DEGRADATION COMMANDS VIA A VEHICLE DATA BUS AND RELATED METHODS Out Of Plan CA PAT 2974521 C A vehicle security unit is for a vehicle including at least one data communications bus, an On-Board Diagnostic (OBD) port coupled to the at least one data communications bus, and... ... and have multi-vehicle capability so that the remote start unit can interface with different 3 vehicles, as disclosed in U.S. Patent Nos. 6,011,460 and 8,032,278 , for example. Of course, 4 remote start capability could also be included within the vehicle security unit 45' as well. [0034] In accordance with another ...	June 04, 2019	Patents	—	—
—	**43.** REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan CA PAT 2925135 C A remote function control system is provided for a vehicle including a data communications bus and coupled to a plurality of vehicle devices, and a wired vehicle electrical ... ... the vehicle or may be removed from the vehicle for programming. Further details of programming a multi- vehicle compatible controller 23' may be found in U.S. Patent No. 8,032,278 to Flick, assigned to the present assignee. Other or additional programming or configuration techniques may be used, as will be appreciated by ...	Jan. 15, 2019	Patents	—	—
—	**44.** VEHICLE SYSTEM INCLUDING REMOTE START DATA BUS COMMAND SENDING BASED UPON A SHORT-RANGE LINK AND RELATED METHODS Out Of Plan CA PAT APP 3062636 A1 A vehicle system for a vehicle may include a vehicle tracking unit that includes a first bus interface to be coupled to a first data communications bus of the vehicle, a vehicle... ... and have multi-vehicle capability so that the remote start unit can interface with different 13 vehicles, as disclosed in U.S. Patent Nos. 6,011,460 and 8,032,278 , for example. Of course, 14 remote start capability could also be included within the vehicle security unit 45' as well. [0039] In accordance with another ...	July 08, 2020	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**45. VEHICLE SYSTEM INCLUDING SECURITY UNIT PROVIDING DEGRADATION COMMANDS VIA A VEHICLE DATA BUS AND RELATED METHODS** Out Of Plan CA PAT APP 2974521 A1 A vehicle security unit is for a vehicle including at least one data communications bus, an On-Board Diagnostic (OBD) port coupled to the at least one data communications bus,... ... and have multi-vehicle capability so that the remote start unit can interface with different 3 vehicles, as disclosed in U.S. Patent Nos. 6,011,460 and 8,032,278 , for example. Of course, 4 remote start capability could also be included within the vehicle security unit 45' as well. [0034] In accordance with another ...	Feb. 19, 2018	Patents	—	—
—	**46. REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Out Of Plan CA PAT APP 2951747 A1 A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... or may be removed from the vehicle for 28 programming. Further details of programming a multi-vehicle compatible controller 23 29 may be found in U.S. Patent No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or 11 23040620 ...	July 12, 2017	Patents	—	—
—	**47. REMOTE FUNCTION CONTROL SYSTEM WITH WIRELESS DATABUS DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS** Out Of Plan CA PAT APP 2951778 A1 A remote function control system is for a vehicle including a data communications bus and coupled to a plurality of vehicle devices, and a wired electrical power system. A... ... or may be removed from the vehicle for 28 programming. Further details of programming a multi-vehicle compatible controller 23 29 may be found in U.S. Patent No. 8,032,278 to Flick, assigned to the present assignee, and the entire contents of which are herein incorporated by reference. Other or 11 23040561 ...	July 12, 2017	Patents	—	—

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Treatment	Title	Date	Type	Depth	Headnote(s)
—	**48.** REMOTE FUNCTION CONTROL SYSTEM WITH REMOTE FUNCTION DEVICE AND ASSOCIATED WIRELESS SECURITY SENSOR FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan CA PAT APP 2951679 A1 A remote function control system is for a vehicle including a data bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired vehicle... ... vehicle or may be removed from the vehicle for 9 programming. Further details of programming a multi-vehicle compatible controller 23 may be found in U.S. Patent No. 8,032,278 to Flick, assigned to the present assignee, 11 and the entire contents of which are herein incorporated by reference. Other or 12 ...	July 12, 2017	Patents	—	—
—	**49.** REMOTE FUNCTION CONTROL SYSTEM FOR A VEHICLE HAVING A DATA COMMUNICATIONS BUS AND RELATED METHODS Out Of Plan CA PAT APP 2925135 A1 A remote function control system is for a vehicle including a data communications bus extending throughout the vehicle and coupled to a plurality of vehicle devices, and a wired... ... or 22 may be removed from the vehicle for programming. Further details of programming a multi- 23 vehicle compatible controller 23' may be found in U.S. Patent No. 8,032,278 to Flick, assigned 24 to the present assignee, and the entire contents of which are herein incorporated by reference. Other or additional ...	Oct. 28, 2016	Patents	—	—

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Citing References (1)

Treatment	Title	Date	Type	Depth	Headnote(s)
—	**1.** MULTI VEHICLE COMPATIBLE TRACKING UNIT FOR VEHICLES HAS DOWNLOADING INTERFACE, WHICH ENABLES DOWNLOADING OF ENABLING DATA RELATED TO AT LEAST ONE CORRESPONDING VEHICLE DEVICE CODE TO BE USED BY MULTI-VEHICLE COMPATIBLE CONTROLLER Out Of Plan DWPI 2008-A15683+ ... to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.First Derwent Appearance:2008.01 Publication No. (Derwent): US 8032278 B2 Original Title (English):VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS Publication Date:2011-10-04 Application No.:US 773272 Application Date ...	May 17, 2000	DWPI	—	—

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Citing References (1)

Treatment	Title	Date	Type	Depth	Headnote(s)
—	**1.** RF 019515/0350 Out Of Pass ... 32801 Number of Pages 3 Last Modified 2011-10-04 PATENTS AFFECTED Title VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS Granted Patent Number US Pat. 8032278 Granted Patent Date 2011-10-04 Published Application Number US Pat. App. 20070279283 Published Application Date 2007-12-06 Application Number 11/773272 ...	July 03, 2007	Assignments	—	—

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Citing References (7)

Treatment	Title	Date	Type	Depth	Headnote(s)
—	**1. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXA Description: Request for Re-Examination Reissue Number:OG Date: 02/18/2020 ...	Feb. 18, 2020	Patent Status Files	—	—
—	**2. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXC Description: Re-Examination Certificate Reissue Number:OG Date: 01/14/2020 ...	Jan. 14, 2020	Patent Status Files	—	—
—	**3. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXA Description: Request for Re-Examination Reissue Number:OG Date: 08/13/2019 ...	Aug. 13, 2019	Patent Status Files	—	—
—	**4. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXC Description: Re-Examination Certificate Reissue Number:OG Date: 02/12/2019 ...	Feb. 12, 2019	Patent Status Files	—	—
—	**5. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXA Description: Request for Re-Examination Reissue Number:OG Date: 01/17/2017 ...	Jan. 17, 2017	Patent Status Files	—	—
—	**6. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXC Description: Re-Examination Certificate Reissue Number:OG Date: 01/03/2017 ...	Jan. 03, 2017	Patent Status Files	—	—
—	**7. PatStat 8032278** ... Patent Status File Patent Number: US 8032278 Change Code: RXA Description: Request for Re-Examination Reissue Number:OG Date: 11/10/2015 ...	Nov. 10, 2015	Patent Status Files	—	—

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Citing References (4)

Treatment	Title	Date	Type	Depth	Headnote(s)
Cited by	**1. Vehicle tracker including input/output features and related methods** LitAlert P2020-38-05 ... 2:20CV01344 Filing Date: 09/10/2020 Subsequent Action: 09/10/2020 Action Taken: CAUSE - 35 USC 271 - COMPLAINT FOR PATENT INFRINGEMENT Notes: none Other Patents: US 8032278 US RE47225 US RE47354 Other Trademarks: none See LitAlert No: none ...	Sep. 10, 2020	Lit Alert		—
Cited by	**2. Vehicle tracking unit for controlling operable vehicle devices using a vehicle data bus and related methods** LitAlert P2020-17-61 ... 6:20CV00693 Filing Date: 04/21/2020 Subsequent Action: 04/21/2020 Action Taken: CAUSE - 35 USC 271 - COMPLAINT FOR PATENT INFRINGEMENT Notes: none Other Patents: US 8032278 US RE47354 US 8362886 US 9981615 US 7305293 US 8410929 US 8258948 Other Trademarks: none See LitAlert No: none ...	Apr. 21, 2020	Lit Alert		—
Mentioned by	**3. Multi-vehicle compatible control system generating command signals on a data bus and associated methods** LitAlert P2017-30-36 ... Date: 07/21/2017 Subsequent Action: 07/21/2017 Action Taken: CAUSE - 28 USC 1338 - COMPLAINT FOR PATENT INFRINGEMENT Notes: none Other Patents: US 6756885 US 8032278 Other Trademarks: none See LitAlert No: none ...	July 21, 2017	Lit Alert		—
Mentioned by	**4. Multi-vehicle compatible control system generating command signals on a data bus and associated methods** LitAlert P2013-52-29 ... Subsequent Action: 12/20/2013 Action Taken: CAUSE - 35 USC 271 - COMPLAINT FOR PATENT INFRINGEMENT Notes: none Other Patents: US 6737989 US 6756885 US 7671727 US 8032278 Other Trademarks: none See LitAlert No: none ...	Dec. 20, 2013	Lit Alert		—

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1:17cv2769, Omega Patents, Llc V. Enfora, Inc.

US District Court Docket

US District Court for the Northern District of Georgia

(Atlanta)

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This case was retrieved on 11/15/2019

Header

Case Number: 1:17cv2769
Date Filed: 07/21/2017
Assigned To: Judge Thomas W. Thrash, Jr
Nature of Suit: Patent (830)
Cause: Patent Infringement
Lead Docket: None
Other Docket: None
Jurisdiction: Federal Question

Class Code: Closed
Closed: 01/31/2018
Statute: 28:1338
Jury Demand: Both
Demand Amount: $0
NOS Description: Patent

Litigants

Attorneys

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Proceedings

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	Availability	#	Date	Proceeding Text	Source
☐	Free	1	07/21/2017	COMPLAINT with Jury Demand, filed by Omega Patents, LLC.; and Summon(s) issued. (Filing fee $ 400.00 receipt number 113E-7279878.) (Attachments: # 1 Ex -A -Patent No. 6,346,876, # 2 Ex -B -Patent No. 6,756,885, # 3 Ex -C -Patent No. 8,032,278, # 4 Civil Cover Sheet)(eop) Please visit our website at http://www.gand.uscourts.gov/commonly-used-forms to obtain Pretrial Instructions which includes the Consent To Proceed Before U.S. Magistrate form. (Entered: 07/25/2017)	
☐	Online	2	07/21/2017	Electronic Summons Issued as to Enfora, Inc.. (eop) (Entered: 07/25/2017)	
☐	Online	3	07/21/2017	Certificate of Interested Persons by Omega Patents, LLC. (eop) (Entered: 07/25/2017)	
☐	Online	4	07/25/2017	AO Form 120 forwarded to Commissioner. (eop) (Entered: 07/25/2017)	
☐	Runner		07/26/2017	Clerks Notation re 3 Certificate of Interested Persons, OK per TWT. (ss) (Entered: 07/26/2017)	
☐	Online	5	07/26/2017	Return of Service Executed by Omega Patents, LLC. Enfora, Inc. served on 7/26/2017, answer due 8/16/2017. (Lee, Cynthia) (Entered: 07/26/2017)	
☐	Online	6	07/27/2017	APPLICATION for Admission of Ryan T. Santurri Pro Hac Vice (Application fee $ 150, receipt number 113E-7290404)by Omega Patents, LLC. (Lee, Cynthia) (Entered: 07/27/2017)	
☐	Online	7	07/27/2017	APPLICATION for Admission of Brian R. Gilchrist Pro Hac Vice (Application fee $ 150, receipt number 113E-7291240)by Omega Patents, LLC. (Lee, Cynthia) (Entered: 07/27/2017)	
☐	Online	8	07/31/2017	Application for Refund of Fees paid online through Pay.gov for receipt number 113E-7290387. (Lee, Cynthia) (Entered: 07/31/2017)	
☐	Runner		08/01/2017	Clerks Approval re 8 Application for Refund of Fees	

	Availability	#	Date	Proceeding Text	Source
				paid online. (mec) (Entered: 08/01/2017)	
	Runner		08/04/2017	Refund in the amount of $150.00 has been processed, effective 08/04/2017 in response to Clerks Action on Application for Refund of Fees paid online. (kns) (Entered: 08/04/2017)	
	Online	9	08/15/2017	Consent MOTION for Extension of Time to File Answer by Enfora, Inc.. (Attachments: # 1 Text of Proposed Order)(Kurtz, Ryan) (Entered: 08/15/2017)	
	Online	10	08/16/2017	ORDER granting 9 Motion for Extension of Time to Answer, Enfora, Inc. Answer due 10/2/2017. Signed by Judge Thomas W. Thrash, Jr on 8/16/2017. (ss) (Entered: 08/16/2017)	
	Online	11	08/16/2017	APPLICATION for Admission of Jo Dale Carothers Pro Hac Vice (Application fee $ 150, receipt number 113E-7330621)by Enfora, Inc.. (Kurtz, Ryan) (Entered: 08/16/2017)	
	Online	12	08/16/2017	APPLICATION for Admission of Eric Anthony Caligiuri Pro Hac Vice (Application fee $ 150, receipt number 113E-7330631)by Enfora, Inc.. (Kurtz, Ryan) (Entered: 08/16/2017)	
	Runner		08/17/2017	APPROVAL by Clerks Office re: 6 APPLICATION for Admission of Ryan T. Santurri Pro Hac Vice (Application fee $ 150, receipt number 113E-7290404). Attorney Ryan T. Santurri added appearing on behalf of Omega Patents, LLC (pmb) (Entered: 08/17/2017)	
	Runner		08/17/2017	APPROVAL by Clerks Office re: 7 APPLICATION for Admission of Brian R. Gilchrist Pro Hac Vice (Application fee $ 150, receipt number 113E-7291240). Attorney Brian R. Gilchrist added appearing on behalf of Omega Patents, LLC (pmb) (Entered: 08/17/2017)	
	Online	13	08/18/2017	ORDER granting Brian R. Gilchrist's 7 Application for Admission Pro Hac Vice. Signed by Judge Thomas W. Thrash, Jr on 8/18/17. (lkl) (Entered: 08/18/2017)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	14	08/18/2017	ORDER granting Ryan T. Santurri's 6 Application for Admission Pro Hac Vice. Signed by Judge Thomas W. Thrash, Jr on 8/18/17. (jkl) (Entered: 08/18/2017)	
☐	Runner		08/31/2017	APPROVAL by Clerks Office re: 11 APPLICATION for Admission of Jo Dale Carothers Pro Hac Vice (Application fee $ 150, receipt number 113E-7330621). Attorney Jo Dale Carothers added appearing on behalf of Enfora, Inc. (pmb) (Entered: 08/31/2017)	
☐	Runner		08/31/2017	APPROVAL by Clerks Office re: 12 APPLICATION for Admission of Eric Anthony Caligiuri Pro Hac Vice (Application fee $ 150, receipt number 113E-7330631). Attorney Eric Anthony Caligiuri added appearing on behalf of Enfora, Inc. (pmb) (Entered: 08/31/2017)	
☐	Online	15	09/01/2017	ORDER granting Eric Anthony Caligiuri's 12 Application for Admission Pro Hac Vice. Signed by Judge Thomas W. Thrash, Jr on 9/1/17. (jkl) (Entered: 09/01/2017)	
☐	Online	16	09/01/2017	ORDER granting Jo Dale Carothers's 11 Application for Admission Pro Hac Vice. Signed by Judge Thomas W. Thrash, Jr on 9/1/17. (jkl) (Entered: 09/01/2017)	
☐	Runner		09/01/2017	Clerk's Certificate of Mailing to Eric Anthony Caligiuri re 15 Order on Application for Admission PHV and Jo Dale Carothers re 16 Order on Application for Admission PHV. (jkl) (Entered: 09/01/2017)	
☐	Online	17	10/02/2017	MOTION to Dismiss For Improper Venue, or in the Alternative, MOTION to Transfer to Southern District of California with Brief In Support by Enfora, Inc. (Attachments: # 1 Brief)(Kurtz, Ryan) . Added MOTION to Transfer Case on 10/3/2017 (jkl). (Entered: 10/02/2017)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	18	10/02/2017	SEALED NOTICE Of Filing Memorandum of Law in Support of 17 MOTION to Dismiss For Improper Venue, or in the Alternative, MOTION to Transfer to Southern District of California by Enfora, Inc. (Kurtz, Ryan) Text modified on 10/3/2017 (jkl). (Entered: 10/02/2017)	
☐	Online	19	10/02/2017	MOTION for Leave to File Matters Under Seal re: 18 Notice of Filing with Brief In Support by Enfora, Inc.. (Attachments: # 1 Text of Proposed Order)(Kurtz, Ryan) (Entered: 10/02/2017)	
☐	Online	20	10/02/2017	Certificate of Interested Persons and Corporate Disclosure Statement by Enfora, Inc. identifying Corporate Parent Novatel Wireless, Inc., Corporate Parent Inseego Corp. for Enfora, Inc.. (Kurtz, Ryan) (Entered: 10/02/2017)	
☐	Online	21	10/03/2017	ORDER granting 19 Motion for Leave to File Matters Under Seal. Signed by Judge Thomas W. Thrash, Jr on 10/3/17. (jkl) (Entered: 10/03/2017)	
☐	Punner		10/03/2017	Clerks Notation re 20 Certificate of Interested Persons, OK, per TWT. (ss) (Entered: 10/03/2017)	
☐	Online	22	10/16/2017	AMENDED COMPLAINT and Exhibits (Redacted) against Enfora, Inc.with Jury Demand, filed by Omega Patents, LLC.(Santurri, Ryan) Please visit our website at http://www.gand.uscourts.gov/commonly-used-forms to obtain Pretrial Instructions which includes the Consent To Proceed Before U.S. Magistrate form. (Entered: 10/16/2017)	
☐	Online	23	10/16/2017	SEALED NOTICE Of Filing Amended Complaint by Omega Patents, LLC re 1 Complaint, (Santurri, Ryan) Modified on 10/17/2017 (btgl). (Entered: 10/16/2017)	
☐	Online	24	10/16/2017	MOTION for Leave to File Matters Under Seal re: 23 Notice of Filing Amended Complaint and Exhibits by Omega Patents, LLC. (Attachments: # 1 Text of	

	Availability	#	Date	Proceeding Text	Source
				Proposed Order)(Santurri, Ryan) (Entered: 10/16/2017)	
	Online	25	10/17/2017	ORDER GRANTING 24 Motion for Leave to File Matters Under Seal. Signed by Judge Thomas W. Thrash, Jr on 10/17/2017. (btql) (Entered: 10/17/2017)	
	Runner		10/23/2017	Submission of 17 MOTION to Dismiss For Improper Venue, or in the Alternative, MOTION to Transfer to Southern District of California to District Judge Thomas W. Thrash. (jkl) (Entered: 10/23/2017)	
	Online	26	10/30/2017	MOTION to Dismiss , MOTION to Change Venue with Brief In Support by Enfora, Inc.. (Attachments: # 1 Brief)(Kurtz, Ryan) (Entered: 10/30/2017)	
	Online	27	10/30/2017	MOTION for Leave to File Matters Under Seal re: 28 Notice of Filing with Brief In Support by Enfora, Inc. (Attachments: # 1 Text of Proposed Order)(Kurtz, Ryan) Modified on 10/31/2017 to link to proper document (jkl). (Entered: 10/30/2017)	
	Online	28	10/30/2017	SEALED MEMORANDUM OF LAW in support of 26 MOTION to Dismiss/MOTION to Change Venue by Enfora, Inc. (Kurtz, Ryan) Modified on 11/3/2017 (jkl). (Entered: 10/30/2017)	
	Online	29	10/31/2017	Consent MOTION to **Stay** Certain Pre-Discovery Deadlines by Enfora, Inc.. (Attachments: # 1 Text of Proposed Order)(Kurtz, Ryan) (Entered: 10/31/2017)	
	Online	31	11/03/2017	ORDER granting 27 Motion for Leave to File Matters Under Seal. Signed by Judge Thomas W. Thrash, Jr on 11/2/17. (jkl) (Entered: 11/03/2017)	
	Online	32	11/03/2017	ORDER GRANTING 29 Motion to **Stay** Certain Pre-Discovery Deadlines until 30 days after Defendant files its Answer to Plaintiffs FAC. Signed by Judge Thomas W. Thrash, Jr. on 11/2/17. (jkl) (Entered: 11/03/2017)	
	Online	33	11/13/2017	RESPONSE in Opposition re 26 MOTION to Dismiss MOTION to Change Venue filed by Omega Patents, LLC. (Santurri, Ryan) (Entered: 11/13/2017)	

	Availability	#	Date	LLC. (Santurri, Ryan) (Entered: 11/13/2017) Proceeding Text	Source
☐	Online	34	11/13/2017	MOTION to **Stay** Pending Reexamination with Brief In Support by Enfora, Inc.. (Attachments: # 1 Brief, # 2 Exhibit A - Declaration of Jo Dale Carothers, # 3 Exhibit 1 t0 Dec of Jo Dale Carothers, # 4 Exhibit 2 to Dec of Jo Dale Carothers, # 5 Exhibit 3 to Dec of Jo Dale Carothers, # 6 Exhibit 4 to Dec of Jo Dale Carothers, # 7 Exhibit 5 part 1 to Dec of Jo Dale Carothers, # 8 Exhibit 5 part 2 to Dec of Jo Dale Carothers)(Kurtz, Ryan) (Entered: 11/13/2017)	
☐	Online	35	11/27/2017	RESPONSE in Opposition re 34 MOTION to **Stay** Pending Reexamination filed by Omega Patents, LLC. (Santurri, Ryan) (Entered: 11/27/2017)	
☐	Online	36	11/27/2017	REPLY to Response to Motion re 26 MOTION to Dismiss MOTION to Change Venue filed by Enfora, Inc.. (Kurtz, Ryan) (Entered: 11/27/2017)	
☐	Online	37	11/27/2017	Per Order: SEALED and Filed at 40 Reply Brief NOTICE Of Filing by Enfora, Inc. (Kurtz, Ryan) Modified on 11/29/2017 (jkl). (Entered: 11/27/2017)	
☐	Online	38	11/27/2017	MOTION for Leave to File Matters Under Seal re: 37 Notice of Filing by Enfora, Inc.. (Attachments: # 1 Text of Proposed Order)(Kurtz, Ryan) (Entered: 11/27/2017)	
☐	Online	39	11/28/2017	ORDER granting 38 Motion for Leave to File Matters Under Seal. Signed by Judge Thomas W. Thrash, Jr on 11/28/17. (jkl) (Entered: 11/29/2017)	
☐	Online	40	11/28/2017	REPLY BRIEF re 26 MOTION to Dismiss/MOTION to Change Venue filed UNDER SEAL by Enfora, Inc. (jkl) (Entered: 11/29/2017)	
☐	Runner		11/29/2017	Submission of 26 MOTION to Dismiss/ MOTION to Change Venue to District Judge Thomas W. Thrash. (jkl) (Entered: 11/29/2017)	
☐	Online	41	12/01/2017	ORDER DENYING AS MOOT 17 Motion to Dismiss/Motion to Transfer Case. Signed by Judge Thomas W. Thrash, Jr on 11/30/17. (jkl) (Entered:	

	Availability	#	Date	Proceeding Text	Source
				Thomas W. Thrash, Jr on 11/30/17. (jkl) (Entered: 12/01/2017)	
	Online	42	12/11/2017	REPLY BRIEF re 34 MOTION to **Stay** Pending Reexamination filed by Enfora, Inc.. (Kurtz, Ryan) (Entered: 12/11/2017)	
	Online	43	12/18/2017	ORDER denying 26 Motion to Dismiss or Transfer. Signed by Judge Thomas W. Thrash, Jr on 12/18/17. (jpa) (Entered: 12/19/2017)	
	Online	44	12/21/2017	Consent MOTION for Extension of Time to File Answer First Amended Complaint by Enfora, Inc.. (Attachments: # 1 Text of Proposed Order)(Kurtz, Ryan) (Entered: 12/21/2017)	
	Online	45	12/27/2017	ORDER GRANTING 44 Motion for Extension of Time to Answer, Enfora, Inc. Answer due 1/16/2018. Signed by Judge Thomas W. Thrash, Jr. on 12/27/17. (bnw) (Entered: 12/27/2017)	
	Runner		12/28/2017	Submission of 34 MOTION to **Stay** Pending Reexamination, submitted to District Judge Thomas W. Thrash. (bnw) (Entered: 12/28/2017)	
	Online	46	01/12/2018	Unopposed MOTION for Leave to File Sur-Reply In Support of Its Motion for A **Stay** Pending Reexamination by Enfora, Inc.. (Attachments: # 1 Exhibit 1 - Proposed Sur-Reply, # 2 Exhibit 2 - Proposed Order)(Kurtz, Ryan) (Entered: 01/12/2018)	
	Online	47	01/16/2018	ORDER granting 46 Motion for Leave to File Sur-Reply In Support of Its Motion for A **Stay** Pending Reexamination. Signed by Judge Thomas W. Thrash, Jr on 1/16/18. (jkl) (Entered: 01/16/2018)	
	Online	48	01/16/2018	Defendant's SUR-REPLY in Support of 34 MOTION to **Stay** Pending Reexamination filed by Enfora, Inc. (jkl) (Entered: 01/16/2018)	
	Online	49	01/16/2018	ANSWER to 22 Amended Complaint by Enfora, Inc.. Discovery ends on 10/15/2018.(Kurtz, Ryan) Please visit our website at http://www.gand.uscourts.gov to obtain Pretrial Instructions. (Entered: 01/16/2018)	

	Availability	#	Date	01/16/2018) Proceeding Text	Source
☐	Online	50	01/16/2018	SEALED ANSWER to Amended Complaint by Enfora, Inc. (Attachments: # 1 Exhibit A)(Kurtz, Ryan) Modified on 1/18/2018 (jkl). (Entered: 01/16/2018)	
☐	Online	51	01/16/2018	MOTION for Leave to File Matters Under Seal re: 50 Notice of Filing with Brief In Support by Enfora, Inc.. (Attachments: # 1 Text of Proposed Order)(Kurtz, Ryan) (Entered: 01/16/2018)	
☐	Online	52	01/18/2018	ORDER GRANTING 51 Motion for Leave to File Matters Under Seal and DIRECTING Clerk to file Defendant Enfora, Inc.s Answer and Defenses to Omega Patents, LLCs First Amended Complaint for Patent Infringement under seal. Signed by Judge Thomas W. Thrash, Jr on 1/18/18. (jkl) (Entered: 01/18/2018)	
☐	Online	53	01/31/2018	ORDER GRANTING 34 Motion to **Stay** Pending Reexamination. The Clerk is directed to close the case administratively. The Plaintiff may move to reopen the case and lift the **stay** after 6 months. Signed by Judge Thomas W. Thrash, Jr on 1/31/18. (jkl) (Entered: 01/31/2018)	
☐	Runner		01/31/2018	Civil Case closed administratively. (jkl) (Entered: 01/31/2018)	
☐	Online	54	01/31/2018	AO Form 120 forwarded to Director of the U.S. Patent and Trademark Office. (jkl) (Entered: 01/31/2018)	
☐	Online	55	08/08/2019	STIPULATION of Dismissal With Prejudice by Omega Patents, LLC. (Santurri, Ryan) (Entered: 08/08/2019)	
☐	Runner		09/03/2019	Clerk's Entry of Dismissal APPROVING 55 Stipulation of Dismissal with Prejudice pursuant to Fed.R.Civ.P.41(a)(1)(A)(ii). (cmd) (Entered: 09/03/2019)	

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Patents

Patents

Number	Title	Issued	Class	Subclass
6,346,876	Multi-vehicle compatible control system generating command signals on a data bus and associated methods	02/12/2002	340	426.13
6,756,885	Multi-vehicle compatible control system for reading from a data bus and associated methods	06/29/2004	340	426.1
8,032,278	Vehicle tracking unit with downloadable codes and associated methods	10/04/2011	701	36

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Content Type: Dockets

Terms: Stay and patent-number(8032278)

Narrow By: Case Status: Open or Unknown or Closed Court: U.S. Circuit Court of Appeals (United States) or United States U.S. District Courts (Civil) or U.S. Supreme Court or U.S. Patent Trial and Appeals Board Except: Civil

Date and Time: Feb 18, 2021 10:46:56 p.m. EST

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6:13cv1950, Omega Patents, Llc V. Calamp Corp.

US District Court Docket

United States District Court, Florida Middle

(Orlando)

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Header

Case Number: 6:13cv1950
Date Filed: 12/20/2013
Assigned To: Judge Paul G. Byron
Referred To: Magistrate Judge Daniel C. Irick
Nature of Suit: Patent (830)
Cause: Patent Infringement
Lead Docket: None
Other Docket: USCAFC, 18-1309-FS
Jurisdiction: Federal Question

Class Code: Closed
Closed: 11/26/2019
Statute: 35:271
Jury Demand: Both
Demand Amount: $0
NOS Description: Patent

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Attorneys

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Proceedings

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☐	Availability	#	Date	Proceeding Text	Source

	Availability	#	Date	Proceeding Text	Source
☐	Free	1	12/20/2013	COMPLAINT Injunctive Relief Requested against Calamp Corp. with Jury Demand (Filing fee $ 400 receipt number Ori-030433) filed by Omega Patents, LLC. (Attachments: # 1 Civil Cover Sheet, # 2 Exhibit A-C, # 3 Exhibit D-F)(JEV) (Entered: 12/20/2013)	
☐	Online	2	12/20/2013	SUMMONS issued as to Calamp Corp. (JEV) (Entered: 12/20/2013)	
☐	Online	3	12/20/2013	Patent Report sent to Alexandria, VA. (Attachments: # 1 Complaint, # 2 Exhibit A-C, # 3 Exhibit D-F) (JEV) (Entered: 12/20/2013)	
☐	Online	4	12/30/2013	RELATED CASE ORDER AND NOTICE of designation under Local Rule 3.05 - track 2. Notice of pendency of other actions due by 1/13/2014. Signed by Judge Gregory A. Presnell on 12/30/2013. Copies mailed. (LAM) (Entered: 12/30/2013)	
☐	Online	5	12/30/2013	INTERESTED PERSONS ORDER. Certificate of interested persons and corporate disclosure statement due by 1/13/2014. Signed by Judge Gregory A. Presnell on 12/30/2013. Copies mailed. (LAM) (Entered: 12/30/2013)	
☐	Online	6	01/14/2014	NOTICE of pendency of related cases re 4 Related case order and track 2 notice per Local Rule 1.04(d) by Omega Patents, LLC. Related case(s): Yes. (Santurri, Ryan) Modified on 1/15/2014 (JEV). (Entered: 01/14/2014)	
☐	Online	7	01/14/2014	CERTIFICATE of interested persons and corporate disclosure statement re 5 Interested persons order by Omega Patents, LLC. (Santurri, Ryan) (Entered: 01/14/2014)	
☐	Online	8	01/15/2014	NOTICE of Appearance by Christopher S. Carver on behalf of Calamp Corp. (Carver, Christopher) (Entered: 01/15/2014)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	9	01/15/2014	NOTICE of pendency of related cases re 4 Related Case Order per Local Rule 1.04(d) by Calamp Corp. Related case(s): yes (Carver, Christopher) Modified on 1/16/2014 (JET). (Entered: 01/15/2014)	
☐	Free	10	01/15/2014	ANSWER and affirmative defenses to 1 Complaint with Jury Demand , COUNTERCLAIM against Omega Patents, LLC by Calamp Corp. (Carver, Christopher) Modified on 1/16/2014 (JET). (Entered: 01/15/2014)	
☐	Online	11	01/15/2014	CERTIFICATE of interested persons and corporate disclosure statement re 5 Interested persons order by Calamp Corp.. (Carver, Christopher) (Entered: 01/15/2014)	
☐	Online	12	01/15/2014	***PRO HAC VICE FEES paid and Special Admission Attorney Certification Form filed by attorney Joel A. Kauth, appearing on behalf of Calamp Corp. (Filing fee $10 receipt number ORL31013) re 22 MOTION for Joel A. Kauth to appear pro hac vice by Calamp Corp. (JET) (JET). Modified on 3/4/2014 (IGC). (Entered: 01/15/2014)	
☐	Online	13	01/16/2014	NOTICE to counsel Joel A. Kauth of Local Rule 2.02 (signed by deputy clerk). (JET) (Entered: 01/16/2014)	
☐	Online	14	01/17/2014	NOTICE to counsel Christopher S. Carver of Local Rule 2.01 (signed by deputy clerk). (JET) (Entered: 01/17/2014)	
☐	Online	15	01/17/2014	NOTICE of Appearance by Peter A. Chiabotti on behalf of Calamp Corp. (Chiabotti, Peter) (Entered: 01/17/2014)	
☐	Online	16	01/29/2014	CERTIFICATE of compliance re: Service of documents 4, 5, 6and 7 on Defendant by Omega Patents, LLC. (Gilchrist, Brian) Modified on 1/30/2014 (JET). (Entered: 01/29/2014)	
☐	Free	17	02/05/2014	MOTION to Dismiss Counterclaims and Memorandum in Support by Omega Patents, LLC	

	Availability	#	Date	Proceeding Text	Source
				Memorandum in Support by Omega Patents, LLC. (Santurri, Ryan) (Entered: 02/05/2014)	
	Online	18	02/06/2014	Unopposed MOTION to Appear Telephonically at Case Management Conference by Calamp Corp. (Carver, Christopher) Modified on 2/7/2014 (JET). (Entered: 02/06/2014)	
	Runner	19	02/07/2014	ORDER granting 18 Motion to attend case management conference by phone. Signed by Judge Gregory A. Presnell on 2/7/2014. (TKW) (Entered: 02/07/2014)	
	Free	20	02/24/2014	Amended COUNTERCLAIM -- CalAmp Corp.'s First Amended Counterclaim against Omega Patents, LLC filed by Calamp Corp..(Carver, Christopher) (Entered: 02/24/2014)	
	Online	21	02/26/2014	ORDER denying as moot 17 motion to dismiss original counterclaim. Signed by Judge Gregory A. Presnell on 2/26/2014. (TKW) (Entered: 02/26/2014)	
	Online	22	03/03/2014	MOTION for Joel A. Kauth to appear pro hac vice by Calamp Corp.. (Attachments: # 1 Exhibit A - (proposed) Order Granting Motion to Appeal Pro Hac Vice of Attorney Joel A. Kauth)(Carver, Christopher) Motions referred to Magistrate Judge David A. Baker. (Entered: 03/03/2014)	
	Online	23	03/03/2014	Written designation and consent to act by Christopher S. Carver on behalf of Calamp Corp.. Local Counsel: Christopher S. Carver. Non-Resident Counsel: Joel A. Kauth. (Carver, Christopher) (Entered: 03/03/2014)	
	Runner	24	03/04/2014	ENDORSED ORDER granting 22 motion to appear pro hac vice. Provided, all counsel shall register for and use the electronic filing system as adopted by the Court. After this Order, the Clerk will no longer send copies of docket entries by U.S. Mail to counsel in this case. Appearance and participation by more than one attorney at any hearing or trial is subject to the discretion of the presiding judge. Signed by	

	Availability	#	Date	Proceeding Text	Source
				Magistrate Judge David A. Baker on 3/4/2014. (Baker, David) (Entered: 03/04/2014)	
	Online	25	03/11/2014	REPLY to 20 Counterclaim by Omega Patents, LLC. (Santurri, Ryan) (Entered: 03/11/2014)	
	Free	26	03/11/2014	CASE MANAGEMENT REPORT. (Gilchrist, Brian) (Entered: 03/11/2014)	
	Online	27	03/12/2014	ORDER of recusal. Signed by Judge Gregory A. Presnell on 3/12/2014. (TKW) (Entered: 03/12/2014)	
	Runner	28	03/12/2014	Case Reassigned to Judge Charlene Edwards Honeywell. New case number: 6:13-cv-1950-Orl-36DAB. Judge Gregory A. Presnell no longer assigned to the case. (IGC) (Entered: 03/12/2014)	
	Free	29	03/14/2014	CASE MANAGEMENT AND SCHEDULING ORDER: Amended Pleadings due by 4/18/2014, Joinder of Parties due by 4/18/2014, Discovery due by 6/1/2015, Dispositive motions due by 7/1/2015, Pretrial statement due by 9/15/2015, Conduct mediation hearing by 6/16/2015. Lead counsel to coordinate dates. Claim Construction Hearing set for 11/24/2014 at 10:00 AM in Orlando Courtroom 5 B before Judge Charlene Edwards Honeywell. Final Pretrial Conference set for 10/20/2015 at 01:30 PM in Orlando Courtroom 5 B before Judge Charlene Edwards Honeywell, Jury Trial set for 11/2/2015 term in Orlando Courtroom 5 B before Judge Charlene Edwards Honeywell. Signed by Judge Charlene Edwards Honeywell on 3/14/2014. (NBL) (Entered: 03/14/2014)	
	Runner	30	03/14/2014	CASE REFERRED to Mediation. (MAA) (Entered: 03/19/2014)	
	Free	31	03/27/2014	NOTICE of mediation conference/hearing to be held on 11/10/2014 at 9:30 a.m. before Emery H. Rosenbluth, Jr., Esq..(Santurri, Ryan) (Entered: 03/27/2014)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	32	04/16/2014	***PRO HAC VICE FEES paid and Special Admission Attorney Certification Form filed by attorney Eugene K. Chong, appearing on behalf of Calamp Corp. (Filing fee $10 receipt number ORL-33338). (MAA) (MAA). (Entered: 04/16/2014)	
☐	Online	33	05/07/2014	MOTION for Eugene Chong to appear pro hac vice by Calamp Corp.. (Attachments: # 1 Exhibit A - (proposed) Order Granting Motion to Appear Pro Hace Vice)(Carver, Christopher) Motions referred to Magistrate Judge David A. Baker. (Entered: 05/07/2014)	
☐	Runner	34	05/07/2014	ENDORSED ORDER granting 33 motion to appear pro hac vice. Provided, all counsel shall register for and use the electronic filing system as adopted by the Court. After this Order, the Clerk will no longer send copies of docket entries by U.S. Mail to counsel in this case. Signed by Magistrate Judge David A. Baker on 5/7/2014. (Baker, David) (Entered: 05/07/2014)	
☐	Runner	35	07/02/2014	Case Reassigned to Judge Paul G. Byron. New case number: 6:13-cv-1950-Orl-40-DAB. Judge Charlene Edwards Honeywell no longer assigned to the case. (SC) (Entered: 07/02/2014)	
☐	Runner	36	07/03/2014	AMENDED NOTICE of Claim Construction Hearing: Claim Construction Hearing set for 11/24/2014 at 10:00 AM in Orlando Courtroom 4 B before Judge Paul G. Byron, U.S. District Court, 401 West Central Blvd., Orlando, Florida. (NBL) copies e-mailed (Entered: 07/03/2014)	
☐	Runner	37	07/07/2014	AMENDED NOTICE of hearing: Final Pretrial Conference set for 10/20/2015 at 1:30 PM in Orlando Courtroom 4 B before Judge Paul G. Byron, Jury Trial set for the November 2015 Trial term, term commencing 11/2/2015 at 09:00 AM in Orlando Courtroom 4 B before Judge Paul G. Byron.	

	Availability	#	Date	Proceeding Text	Source
				Filed (Entered: 07/07/2014)	
☐	Online	38	09/05/2014	MOTION for miscellaneous relief, specifically Motion for Claim Construction by Omega Patents, LLC. (Attachments: # 1 Exhibit A - U.S. Patent 6,346,876, # 2 Exhibit B - U.S. Patent 6,756,885, # 3 Exhibit C - U.S. Patent 5,719,551)(Santurri, Ryan) (Entered: 09/05/2014)	
☐	Online	39	09/05/2014	DEFENDANT'S Opening Claim Construction Brief re 29 Case management and scheduling orderSet Hearings filed by Calamp Corp.. (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Exhibit C, # 4 Exhibit D)(Kauth, Joel) Modified on 9/8/2014 (MAA). (Entered: 09/05/2014)	
☐	Online	40	10/03/2014	RESPONSE in opposition to 39 Motion for Claim Construction filed by Omega Patents, LLC. (Santurri, Ryan) Modified on 10/6/2014 (LAK). (Entered: 10/03/2014)	
☐	Online	41	10/03/2014	RESPONSIVE Claim Construction brief filed by Calamp Corp. (Kauth, Joel) Modified on 10/6/2014 (LAK). (Entered: 10/03/2014)	
☐	Online	42	10/30/2014	ORDER re: Claim Construction Hearing. Signed by Judge Paul G. Byron on 10/30/2014. (RML) (Entered: 10/30/2014)	
☐	Online	43	11/11/2014	MEDIATION report Hearing held on 111014. Hearing outcome: Impasse.. (Rosenbluth, Emery) (Entered: 11/11/2014)	
☐	Online	44	11/17/2014	RESPONSE re 42 Order pdf -- Joint Pre-Hearing Statement filed by Omega Patents, LLC. (Gilchrist, Brian) (Entered: 11/17/2014)	
☐	Online	45	11/21/2014	NOTICE of Appearance by Carrie Ann Wozniak on behalf of Calamp Corp. (Wozniak, Carrie) (Entered: 11/21/2014)	
☐	Online	46	11/24/2014	Minute Entry (CLAIM CONSTRUCTION HEARING) Proceedings held before Judge Paul G. Byron on 11/24/2014. Written Order to issue. Court Reporter: Kerstin Stanford (NBL) (Entered: 11/24/2014)	

	Availability	#	Date	Proceeding Text	Source
				Koretta Stanford (NBL) (Entered: 11/24/2014)	
☐	Runner	47	11/28/2014	NOTICE RESCHEDULING FINAL PRETRIAL CONFERENCE (TIME ONLY): Final Pretrial Conference reset for 10/20/2015 at 3:00 PM in Orlando Courtroom 4 B before Judge Paul G. Byron, U.S. District Court, 401 West Central Blvd., Orlando, Florida. *(previously noticed for 1:30 p.m.) (NBL) copies mailed/e-mailed (Entered: 11/28/2014)	
☐	Online	48	12/12/2014	PLAINTIFF'S BRIEF/Memorandum of Law on Markman Issues re 46 Miscellaneous Hearing filed by Omega Patents, LLC. (Santurri, Ryan) Text modified on 12/15/2014 (RDO). (Entered: 12/12/2014)	
☐	Online	49	12/12/2014	SUPPLEMENTAL BRIEF on Claim Construction re 46 Miscellaneous Hearing filed by Calamp Corp.. (Kauth, Joel) Text modified on 12/15/2014 (RDO). (Entered: 12/12/2014)	
☐	Free	50	02/20/2015	ORDER ON CLAIM CONSTRUCTION re: 38, 39. Signed by Judge Paul G. Byron on 2/20/2015. (RML) (Entered: 02/20/2015)	
☐	Online	51	03/23/2015	Joint MOTION for Extension of Time to Complete Discovery to June 15, 2015 by Calamp Corp.. (Kauth, Joel) Motions referred to Magistrate Judge David A. Baker. (Entered: 03/23/2015)	
☐	Runner	52	03/24/2015	ENDORSED ORDER granting 51 Motion for Extension of Time to Complete Discovery. Provided, however, this extension in no way relieves the parties of other obligations and deadlines set forth in the Scheduling Order. Further, this extension shall not be the basis for seeking relief from that Order. Provided further, this extension assumes that there will be no disputes regarding discovery within this extended period, and the Court will not entertain any motions pertaining to such disputes. In particular, the parties are reminded that the deadline for filing of dispositive motions is NOT extended. Signed by	

	Availability	#	Date	Proceeding Text	Source
				Magistrate Judge David A. Baker on 3/24/2015. (Baker, David) (Entered: 03/24/2015)	
	Runner		03/25/2015	Set/reset scheduling order deadlines: Discovery due by 6/15/2015 (RDO) (Entered: 03/25/2015)	
	Online	53	07/01/2015	Joint MOTION for leave to file Exhibits Under Seal in Connection with Daubert and Dispositive Motions by Omega Patents, LLC. (Santurri, Ryan) (Entered: 07/01/2015)	
	Free	54	07/01/2015	MOTION for summary judgment as to Validity, Infringement, Enforceability, and Unfair Competition by Omega Patents, LLC. (Santurri, Ryan) (Entered: 07/01/2015)	
	Online	55	07/01/2015	MOTION for miscellaneous relief, specifically Motion and Memorandum of Law to Exclude the Testimony of Defendant's Expert Eric Andrews by Omega Patents, LLC. (Santurri, Ryan) (Entered: 07/01/2015)	
	Free	56	07/01/2015	MOTION for miscellaneous relief, specifically Motion and Memorandum to Exclude the Testimony of Defendant's Expert on Damages, DeForest McDuff, Ph.D. by Omega Patents, LLC. (Santurri, Ryan) (Entered: 07/01/2015)	
	Free	57	07/01/2015	APPENDIX re 56 MOTION for miscellaneous relief, specifically Motion and Memorandum to Exclude the Testimony of Defendant's Expert on Damages, DeForest McDuff, Ph.D. , 54 MOTION for summary judgment as to Validity, Infringement, Enforceability, and Unfair Competition, 55 MOTION for miscellaneous relief, specifically Motion and Memorandum of Law to Exclude the Testimony of Defendant's Expert Eric Andrews by Omega Patents, LLC. (Attachments: # 1 Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3, # 4 Exhibit 4, # 5 Exhibit 5, # 6 Exhibit 6, # 7 Exhibit 7, # 8 Exhibit 8, # 9 Exhibit 9, # 10 Exhibit 10, # 11 Exhibit 11, # 12 Exhibit 12) (Santurri, Ryan) (Entered: 07/01/2015)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	58	07/01/2015	(** STRICKEN per 77 Order **) MOTION for summary judgment of invalidity by Calamp Corp. (Kauth, Joel) Modified on 7/22/2015 (SWT). (Entered: 07/01/2015)	
☐	Free	59	07/01/2015	DECLARATION of Eric Andrews by Calamp Corp. in support of 58 Motion for Summary Judgment. (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Exhibit C, # 4 Exhibit D, # 5 Exhibit E, # 6 Exhibit F, # 7 Exhibit G, # 8 Exhibit H, # 9 Exhibit I, # 10 Exhibit J, # 11 Exhibit K, # 12 Exhibit L, # 13 Exhibit M, # 14 Exhibit N)(Kauth, Joel) Modified on 7/2/2015 (RDO). (Entered: 07/01/2015)	
☐	Online	60	07/01/2015	(** STRICKEN per 77 Order **) MOTION for summary judgment of noninfringement by Calamp Corp. (Kauth, Joel) Modified on 7/22/2015 (SWT). (Entered: 07/02/2015)	
☐	Online	61	07/02/2015	DECLARATION of Eric Andrews by Calamp Corp.in support of 60 Motion for Summary Judgment. (Attachments: # 1 Exhibit A)(Kauth, Joel) Modified on 7/2/2015 (RDO). (Entered: 07/02/2015)	
☐	Runner	62	07/02/2015	ENDORSED ORDER granting 53 Joint Motion for Leave to File Exhibits Under Seal in Connection with Daubert and Dispositive Motions. Signed by Judge Paul G. Byron on 7/2/2015. (MMW) (Entered: 07/02/2015)	
☐	Free	63	07/02/2015	APPENDIX re 61 Declaration of Eric Andrews in Support of Motion for Summary Judgment of Noninfringement by Calamp Corp.. (Attachments: # 1 Exhibit B-1, # 2 Exhibit B-2, # 3 Exhibit C-1, # 4 Exhibit C-2, # 5 Exhibit D-1, # 6 Exhibit D-2, # 7 Exhibit E-1, # 8 Exhibit E-2, # 9 Exhibit F-1, # 10 Exhibit F-2, # 11 Exhibit F-3)(Kauth, Joel) (Entered: 07/02/2015)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	64	07/02/2015	MOTION to Strike 60 MOTION for summary judgment of noninfringement in Exceedence of CMSO Limitation on Motions for Summary Judgment by Omega Patents, LLC. (Santurri, Ryan) Motions referred to Magistrate Judge David A. Baker. (Entered: 07/02/2015)	
☐	Online	65	07/06/2015	SUMMARY JUDGMENT NOTICE re 58 MOTION for summary judgment of invalidity, 54 MOTION for summary judgment as to Validity, Infringement, Enforceability, and Unfair Competition, 60 MOTION for summary judgment of noninfringement. Unless the Court notifies the parties otherwise, there will not be a hearing on this motion. (NBL) copies e-mailed (Entered: 07/06/2015)	
☐	Runner		07/06/2015	Sealed Document S-66. (MAA) (Entered: 07/08/2015)	
☐	Online	67	07/08/2015	Unopposed MOTION for Extension of Time to File Response to Document 60 Pending Ruling on Plaintiff's Motion to Strike by Omega Patents, LLC. (Santurri, Ryan) (Entered: 07/08/2015)	
☐	Runner	68	07/09/2015	ENDORSED ORDER granting 67 Motion for Extension of Time to File. Signed by Judge Paul G. Byron on 7/9/2015. (MMW) (Entered: 07/09/2015)	
☐	Online	69	07/09/2015	AMENDED CASE MANAGEMENT AND SCHEDULING ORDER. Signed by Judge Paul G. Byron on 7/9/2015. (MMW) (Entered: 07/09/2015)	
☐	Runner		07/10/2015	Set/reset scheduling order deadlines: Pretrial statement due by 9/22/2015, All other motions due by 9/29/2015, Final Pretrial Conference set for 10/20/2015 at 03:00 PM in Orlando Courtroom 4 B before Judge Paul G. Byron, Jury Trial set for trial term beginning on 11/2/2015 at 09:00 AM in Orlando Courtroom 4 B before Judge Paul G. Byron. (RDG) (Entered: 07/10/2015)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	70	07/20/2015	RESPONSE in Opposition re 58 MOTION for summary judgment of invalidity filed by Omega Patents, LLC. (Attachments: # 1 Exhibit 13) (Santurri, Ryan) (Entered: 07/20/2015)	
☐	Online	71	07/20/2015	STIPULATION of Undisputed Facts; re 54 MOTION for summary judgment as to Validity, Infringement, Enforceability, and Unfair Competition by Omega Patents, LLC. (Santurri, Ryan) Modified on 7/21/2015 (SWT). (Entered: 07/20/2015)	
☐	Online	72	07/20/2015	RESPONSE in Opposition re 64 MOTION to Strike 60 MOTION for summary judgment of noninfringement in Exceedence of CMSO Limitation on Motions for Summary Judgment filed by Calamp Corp.. (Kauth, Joel) (Entered: 07/20/2015)	
☐	Online	73	07/20/2015	Joint STIPULATION of Agreed Material Facts; re 58 MOTION for summary judgment of invalidity by Calamp Corp. (Kauth, Joel) Modified on 7/21/2015 (SWT). (Entered: 07/20/2015)	
☐	Free	74	07/20/2015	RESPONSE in Opposition re 56 MOTION for miscellaneous relief, specifically Motion and Memorandum to Exclude the Testimony of Defendant's Expert on Damages, DeForest McDuff, Ph.D. filed by Calamp Corp.. (Kauth, Joel) (Entered: 07/20/2015)	
☐	Online	75	07/20/2015	RESPONSE in Opposition re 55 MOTION for miscellaneous relief, specifically Motion and Memorandum of Law to Exclude the Testimony of Defendant's Expert Eric Andrews filed by Calamp Corp.. (Kauth, Joel) (Entered: 07/20/2015)	

	Availability	#	Date	Proceeding Text	Source
☐	Free	76	07/20/2015	RESPONSE in Opposition re 54 MOTION for summary judgment as to Validity, Infringement, Enforceability, and Unfair Competition filed by Calamp Corp.. (Attachments: # 1 Appendix, # 2 Exhibit 1, # 3 Exhibit 2, # 4 Exhibit 3, # 5 Exhibit 4, # 6 Exhibit 5, # 7 Exhibit 6, # 8 Exhibit 7, # 9 Exhibit 8, # 10 Exhibit 9, # 11 Exhibit 10, # 12 Exhibit 11, # 13 Exhibit 12)(Kauth, Joel) (Entered: 07/21/2015)	
☐	Online	77	07/21/2015	ORDER granting in part 64 Motion to strike 58 MOTION for summary judgment and 60 MOTION for summary judgment. Defendant shall have until Monday, July 27, 2015, in which to file a single compliant motion for summary judgment. Signed by Magistrate Judge David A. Baker on 7/21/2015. (LAK) (Entered: 07/21/2015)	
☐	Free	78	07/27/2015	MOTION for summary judgment and memorandum of law regarding invalidity and noninfringement by Calamp Corp.. (Kauth, Joel) (Entered: 07/27/2015)	
☐	Free	79	08/03/2015	REPLY to Response to Motion re 54 MOTION for summary judgment as to Validity, Infringement, Enforceability, and Unfair Competition filed by Omega Patents, LLC. (Santurri, Ryan) (Entered: 08/03/2015)	
☐	Online	80	08/04/2015	SUMMARY JUDGMENT NOTICE re 78 MOTION for summary judgment and memorandum of law regarding invalidity and noninfringement. Unless the Court notifies the parties otherwise, there will not be a hearing on this motion. (N&L) copies e-mailed (Entered: 08/04/2015)	
☐	Free	81	08/06/2015	RESPONSE in Opposition re 78 MOTION for summary judgment and memorandum of law regarding invalidity and noninfringement filed by Omega Patents, LLC. (Attachments: # 1 Exhibit 13) (Santurri, Ryan) (Entered: 08/06/2015)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	82	08/06/2015	REQUEST for oral argument re 56 MOTION for miscellaneous relief, specifically Motion and Memorandum to Exclude the Testimony of Defendant's Expert on Damages, DeForest McDuff, Ph.D. , 54 MOTION for summary judgment as to Validity, Infringement, Enforceability, and Unfair Competition, 55 MOTION for miscellaneous relief, specifically Motion and Memorandum of Law to Exclude the Testimony of Defendant's Expert Eric Andrews by Omega Patents, LLC. (Santurri, Ryan) (Entered: 08/06/2015)	
☐	Free	83	08/24/2015	REPLY in support of 78 MOTION for summary judgment and memorandum of law regarding invalidity and noninfringement filed by Calamp Corp.. (Kauth, Joel) Text modified on 8/25/2015 (RDO). (Entered: 08/24/2015)	
☐	Online	84	08/27/2015	UNOPPOSED MOTION for miscellaneous relief, specifically For Lead Counsel To Attend Meeting to Prepare Joint Final Pretrial Statement by Video Conference by Calamp Corp.. (Kauth, Joel) Text modified on 8/28/2015 (RDO). (Entered: 08/27/2015)	
☐	Runner	85	08/28/2015	ENDORSED ORDER granting 84 Unopposed Motion for Lead Counsel to Attend Meeting to Prepare Joint Final Pretrial Statement by Video Conference. Signed by Judge Paul G. Byron on 8/28/2015. (MMW) (Entered: 08/28/2015)	
☐	Online	86	09/08/2015	MOTION for Charles Halloran to appear pro hac vice by Calamp Corp.. (Wozniak, Carrie) Motions referred to Magistrate Judge David A. Baker. (Entered: 09/08/2015)	
☐	Runner	87	09/09/2015	ENDORSED ORDER granting 86 motion to appear pro hac vice. Signed by Magistrate Judge David A. Baker on 9/9/2015. (Baker, David) (Entered: 09/09/2015)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	88	09/09/2015	***PRO HAC VICE FEES paid and Special Admission Attorney Certification Form filed by attorney Charles Halloran, appearing on behalf of Calamp Corp. (Filing fee $150 receipt number ORL-46938.) Related document: 86 MOTION for Charles Halloran to appear pro hac vice. (MAA) (MAA). (Entered: 09/09/2015)	
☐	Free	89	09/17/2015	SUPPLEMENT re 54 MOTION for summary judgment as to Validity, Infringement, Enforceability, and Unfair Competition by Omega Patents, LLC. (Attachments: # 1 Exhibit Exhibit A)(Santurri, Ryan) (Entered: 09/17/2015)	
☐	Free	90	09/22/2015	Joint PRETRIAL statement by Omega Patents, LLC and Calamp Corp. (Attachments: # 1 Exhibit A - Plaintiff's Exhibit List, # 2 Exhibit B - Defendant's Exhibit List, # 3 Exhibit C - Plaintiff's Witness List, # 4 Exhibit D - Defendant's Witness List, # 5 Exhibit E - Plaintiff's Deposition Designations, # 6 Exhibit F - Defendant's Deposition Designations, # 7 Exhibit G - Plaintiff's Proposed Voir Dire, # 8 Exhibit H - Defendant's Proposed Voir Dire, # 9 Exhibit I - Jury Instructions, # 10 Exhibit J - Plaintiff's Proposed Verdict Form, # 11 Exhibit K - Defendant's Proposed Verdict Form)(Santurri, Ryan) Modified on 9/23/2015 (SWT). (Entered: 09/22/2015)	
☐	Runner	91	09/23/2015	NOTICE OF CONTINUANCE OF TRIAL TERM and FINAL PRETRIAL CONFERENCE: Final Pretrial Conference is rescheduled for 11/17/2015 at 3:00 PM in Orlando Courtroom 4 B before Judge Paul G. Byron. Jury Trial set for the DECEMBER 2015 TRIAL TERM, term commencing 12/1/2015 in Orlando Courtroom 4 B before Judge Paul G. Byron. (NBL) copies e-mailed (Entered: 09/23/2015)	
☐	Online	92	09/24/2015	NOTICE by Calamp Corp. of Conflict with Trial Docket (Wozniak, Carrie) (Entered: 09/24/2015)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	93	09/29/2015	MOTION to Bifurcate Issues of Inequitable Conduct and Prosecution Laches by Omega Patents, LLC. (Santurri, Ryan) (Entered: 09/29/2015)	
☐	Online	94	09/29/2015	MOTION in limine by Omega Patents, LLC. (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Exhibit C, # 4 Exhibit D, # 5 Exhibit E, # 6 Exhibit F)(Santurri, Ryan) (Entered: 09/29/2015)	
☐	Free	95	09/29/2015	MOTION for miscellaneous relief, specifically That U.S. Patent Nos. 6,346,876 B1, 6,756,885 B1, 7,671,727 B2, and 8,032,278 B2 are not entitled to any priority date earlier than their actual filing dates by Calamp Corp.. (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Exhibit C, # 4 Exhibit D, # 5 Exhibit E, # 6 Exhibit F, # 7 Exhibit G, # 8 Exhibit H, # 9 Exhibit I, # 10 Exhibit J)(Kauth, Joel) (Entered: 09/29/2015)	
☐	Online	96	09/29/2015	MOTION in limine by Calamp Corp.. (Attachments: # 1 Exhibit A, # 2 Exhibit B)(Kauth, Joel) (Entered: 09/29/2015)	
☐	Free	97	10/13/2015	RESPONSE in Opposition re 95 MOTION for miscellaneous relief, specifically That U.S. Patent Nos. 6,346,876 B1, 6,756,885 B1, 7,671,727 B2, and 8,032,278 B2 are not entitled to any priority date earlier than their actual filing dates filed by Omega Patents, LLC. (Santurri, Ryan) (Entered: 10/13/2015)	
☐	Online	98	10/13/2015	RESPONSE in Opposition re 96 MOTION in limine filed by Omega Patents, LLC. (Santurri, Ryan) (Entered: 10/13/2015)	
☐	Free	99	10/13/2015	TRIAL BRIEF by Calamp Corp.. (Kauth, Joel) (Entered: 10/13/2015)	
☐	Online	100	10/16/2015	RESPONSE in Opposition re 93 MOTION to Bifurcate Issues of Inequitable Conduct and Prosecution Laches filed by Calamp Corp.. (Attachments: # 1 Exhibit, # 2 Exhibit, # 3 Exhibit, # 4 Exhibit, # 5	

	Availability	#	Date	Proceeding Text	Source
				Exhibit, # 6 Exhibit)(Kauth, Joel) (Entered: 10/16/2015)	
	Online	101	10/16/2015	RESPONSE in Opposition re 94 MOTION in limine filed by Calamp Corp.. (Attachments: # 1 Exhibit, # 2 Exhibit, # 3 Exhibit, # 4 Exhibit, # 5 Exhibit, # 6 Exhibit, # 7 Exhibit)(Kauth, Joel) (Entered: 10/16/2015)	
	Runner	102	11/02/2015	NOTICE RESCHEDULING FINAL PRETRIAL CONFERENCE (TIME ONLY): Final Pretrial Conference is reset for 11/17/2015 at 1:30 PM in Orlando Courtroom 4 B before Judge Paul G. Byron, U.S. District Court, 401 West Central Blvd., Orlando, Florida. *(previously noticed for 3:00 pm) (NBL) copies e-mailed (Entered: 11/02/2015)	
	Runner	103	11/13/2015	ENDORSED ORDER re 102 Notice of Hearing. All counsel may appear by telephone for the final pretrial conference. This case will not be on the December trial term, therefore another final pretrial conference will be noticed for the month prior to the start of the new trial term. Signed by Judge Paul G. Byron on 11/13/2015. (MMW) (Entered: 11/13/2015)	
	Runner	104	11/16/2015	NOTICE TO COUNSEL REGARDING TELEPHONIC FINAL PRETRIAL CONFERENCE: Counsel shall appear by calling into the Toll Free Meeting Number: 1-888-363-4735, Access Code: 3126210 and Security Code: 111715. (NBL) copies e-mailed (Entered: 11/16/2015)	
	Online	105	11/17/2015	Minute Entry. (PRETRIAL CONFERENCE) Proceedings held before Judge Paul G. Byron on 11/17/2015. Court Reporter: Koretta Stanford (NBL) (Entered: 11/17/2015)	
	Runner	106	11/17/2015	NOTICE of Daubert Hearing (Oral Argument) re 56 MOTION to Exclude the Testimony of Defendant's Expert on Damages, DeForest McDuff, Ph.D. Daubert Hearing is set for 12/8/2015 at 1:30 PM in Orlando Courtroom 4 B before Judge Paul G. Byron. The	

	Availability	#	Date	Proceeding Text	Source
				(30) minutes per side. (NBL) copies e-mailed (Entered: 11/17/2015)	
	Runner	107	11/17/2015	NOTICE OF DATE CERTAIN JURY TRIAL: Jury Trial shall commence on Tuesday, 2/16/2016 at 9:00 AM in Orlando Courtroom 4 B before Judge Paul G. Byron,U.S. District Court, 401 West Central Blvd., Orlando, Florida. Trial is estimated at (5)days. (NBL) copies e-mailed (Entered: 11/17/2015)	
	Runner	108	11/17/2015	NOTICE OF FINAL PRETRIAL CONFERENCE: Final Pretrial Conference is set for 1/20/2016 at 3:00 PM in Orlando Courtroom 4 B before Judge Paul G. Byron, U.S. District Court, 401 West Central Blvd., Orlando, Florida. (NBL) copies emailed (Entered: 11/17/2015)	
	Online	109	11/17/2015	NOTICE Regarding Summary Judgment Exhibits by Omega Patents, LLC re 54 MOTION for summary judgment as to Validity, Infringement, Enforceability, and Unfair Competition (Attachments: # 1 Exhibit PXS)(Santurri, Ryan) Text modified on 11/18/2015 (PDO). (Entered: 11/17/2015)	
	Runner	110	11/19/2015	NOTICE RESCHEDULING DAUBERT HEARING: re 56 Motion and Memorandum to Exclude the Testimony of Defendant's Expert on Damages, DeForest McDuff, Ph.D. The Daubert Hearing is rescheduled for Friday, 12/11/2015 at 1:00 PM in Orlando Courtroom 4 B before Judge Paul G. Byron, U.S. District Court, 401 West Central Blvd., Orlando, Florida. The Court has set aside (30) minutes per side. (NBL) copies e-mailed (Entered: 11/19/2015)	
	Runner	111	11/19/2015	NOTICE TO COUNSEL: The Daubert Hearing scheduled for December 11, 2015 at 1:00 pm will be Oral Argument, (30) minutes per side. (NBL) copies e-mailed (Entered: 11/19/2015)	
	Online	112	11/19/2015	NOTICE of Appearance as Additional Counsel Appearance by Thomas R. Yaegers on behalf of Calamp Corp. (Yaegers, Thomas) (Entered: 11/19/2015)	

	Availability	#	Date	Proceeding Text	Source
	Online	113	11/30/2015	NOTICE by Omega Patents, LLC Regarding Accused Products (Santurri, Ryan) (Entered: 11/30/2015)	
	Free	114	11/30/2015	NOTICE by Calamp Corp. Regarding Accused Devices (Attachments: # 1 Exhibit 1, # 2 Exhibit 2) (Kauth, Joel) (Entered: 11/30/2015)	
	Online	115	12/11/2015	Minute Entry (DAUBERT HEARING) Proceedings held before Judge Paul G. Byron re 56 MOTION to Exclude the Testimony of Defendant's Expert on Damages, DeForest McDuff, Ph.D. Court takes motion under advisement. Court Reporter: Koretta Stanford (NBL) (Entered: 12/11/2015)	
	Runner	116	12/22/2015	NOTICE RESCHEDULING FINAL PRETRIAL CONFERENCE (TIME ONLY): Final Pretrial Conference is reset for 1/20/2016 at 4:00 PM in Orlando Courtroom 4 B before Judge Paul G. Byron, U.S. District Court, 401 West Central Blvd., Orlando, Florida. *(previously noticed for 3:00 pm) (NBL) copies e-mailed (Entered: 12/22/2015)	
	Free	117	12/23/2015	ORDER granting in part and denying in part 55 Plaintiff's Motion and Memorandum of Law to Exclude the Testimony of Defendant's Expert Eric Andrews; granting 56 Plaintiff's Motion and Memorandum of Law to Exclude the Testimony of Defendant's Expert on Damages. Signed by Judge Paul G. Byron on 12/23/2015. (RML) (Entered: 12/23/2015)	
	Free	118	12/23/2015	ORDER granting in part and denying in part 54 Plaintiff's Motion and Memorandum for Summary Judgment as to Validity, Infringement, Enforceability and Unfair Competition; denying 78 Defendant CalAmp Corp.'s Motion for Summary Judgment and Memorandum of Law Regarding Invalidity and Noninfringement. Signed by Judge Paul G. Byron on 12/23/2015. (RML) (Entered: 12/23/2015)	
	Online	119	01/05/2016	ORDER granting in part and denying in part 93 Plaintiff's Motion to Bifurcate Issues of Inequitable Conduct and Prosecution Laches. Signed by Judge	

	Availability	#	Date	Proceeding Text	Source
				1/5/2016. (RML) (Entered: 01/05/2016)	
☐	Runner	120	01/07/2016	ENDORSED ORDER directing the parties to file with the Court all full deposition transcripts which they intend to designate for use at trial. Transcripts must be filed by 5:00 P.M. on January 11, 2016. Signed by Judge Paul G. Byron on 1/7/2016. (MMW) (Entered: 01/07/2016)	
☐	Free	121	01/13/2016	ORDER denying without prejudice as premature 95 Defendant CalAmp Corp.'s Motion That U.S. Patent Nos. '876, '865, '727, and '278 Are Not Entitled To Any Priority Date Earlier Than Their Actual Filing Dates. Signed by Judge Paul G. Byron on 1/13/2016. (RML) (Entered: 01/13/2016)	
☐	Online	122	01/19/2016	ORDER granting in part and denying in part 94 Plaintiff Omega Patents, LLC's Motion in Limine. Signed by Judge Paul G. Byron on 1/19/2016. (RML) (Entered: 01/19/2016)	
☐	Online	123	01/20/2016	Minute Entry (FINAL PRETRIAL CONFERENCE) Proceedings held before Judge Paul G. Byron on 1/20/2016. Court Reporter: Diane Peede (NBL) (Entered: 01/21/2016)	
☐	Online	124	01/21/2016	FEBRIARY 2016 TRIAL CALENDAR for United States District Judge Paul G. Byron.(NBL) copies e-mailed (Entered: 01/21/2016)	
☐	Online	125	01/22/2016	CIVIL PRETRIAL ORDER and ORDER denying 96 Defendant CalAmp Corp.'s Motion in Limine. Signed by Judge Paul G. Byron on 1/22/2016. (RML) (Entered: 01/22/2016)	
☐	Online	126	02/01/2016	ORDER re: [90-5] [90-6] the parties' objections to deposition designations and counter-designations. Signed by Judge Paul G. Byron on 2/1/2016. (RML) (Entered: 02/01/2016)	
☐	Online	127	02/12/2016	Exhibit List by Calamp Corp.. (Kauth, Joel) (Entered: 02/12/2016)	
☐	Online	128	02/12/2016	Witness List by Calamp Corp.. (Kauth, Joel) (Entered: 02/12/2016)	

	Availability	#	Date	(Entered: 02/12/2016) Proceeding Text	Source
☐	Online	129	02/15/2016	Exhibit List (Corrected) by Calamp Corp.. (Kauth, Joel) (Entered: 02/15/2016)	
☐	Online	130	02/16/2016	Minute Entry (JURY TRIAL DAY 1) Proceedings held before Judge Paul G. Byron on 2/16/2016. Court Reporter: Koretta Stanford (NBL) (Entered: 02/17/2016)	
☐	Online	131	02/17/2016	Minute Entry (JURY TRIAL DAY 2) Proceedings held before Judge Paul G. Byron on 2/17/2016. Court Reporter: Koretta Stanford (NBL) (Entered: 02/17/2016)	
☐	Online	132	02/18/2016	Minute Entry (JURY TRIAL DAY 3) Proceedings held before Judge Paul G. Byron on 2/18/2016. Court Reporter: Koretta Stanford (NBL) (Entered: 02/18/2016)	
☐	Online	133	02/19/2016	Minute Entry (JURY TRIAL DAY 4) Proceedings held before Judge Paul G. Byron on 2/19/2016. Court Reporter: Koretta Stanford (NBL) (Entered: 02/19/2016)	
☐	Online	134	02/22/2016	Minute Entry (JURY TRIAL DAY 5) Proceedings held before Judge Paul G. Byron on 2/22/2016. Court Reporter: Koretta Stanford (NBL) (Entered: 02/23/2016)	
☐	Runner	135	02/22/2016	ORAL MOTION for judgment as a matter of law by Calamp Corp. (NBL) (Entered: 02/23/2016)	
☐	Runner	136	02/22/2016	ORAL ORDER denying for the reasons stated on the record 135 Defendant's Oral Motion for Judgment as a Matter of Law. Rendered in Open Court by Judge Paul G. Byron on 2/22/2016. (NBL) (Entered: 02/23/2016)	
☐	Online	137	02/23/2016	Minute Entry (JURY TRIAL DAY 6) Proceedings held before Judge Paul G. Byron on 2/23/2016. Court Reporter: Koretta Stanford (NBL) (Entered: 02/23/2016)	

	Availability	#	Date	Proceeding Text	Source
☐	Runner	138	02/23/2016	ORAL MOTION for judgment as a matter of law on the issues of Obviousness, Written Description and Infringement by Omega Patents, LLC. (NBL) (Entered: 02/23/2016)	
☐	Runner	139	02/23/2016	ORAL ORDER re: 138 Plaintiff's Oral Motion for Judgment as a Matter of Law. For the reasons stated on the record, the Court WITHHOLDS as to the issue of Obviousness, GRANTS as to Written Description and DENIES as to Infringement. Rendered in Open Court by Judge Paul G. Byron on 2/23/2016. (NBL) Modified on 2/23/2016 (NBL). (Entered: 02/23/2016)	
☐	Runner	140	02/23/2016	ORAL MOTION for judgment as a matter of law as to the issues of Obviousness, Willful Infringement and Notice Date by Calamp Corp. (NBL) (Entered: 02/23/2016)	
☐	Runner	141	02/23/2016	ORAL ORDER denying for the reasons stated on the record 140 Defendant's Oral Motion for Judgment as a Matter of Law as to Obviousness, Willful Infringement and Notice Date. Rendered in Open Court by Judge Paul G. Byron on 2/23/2016. (NBL) (Entered: 02/23/2016)	
☐	Online	142	02/24/2016	Minute Entry(JURY TRIAL DAY 7) Proceedings held before Judge Paul G. Byron on 2/24/2016. Jury Verdict for the Plaintiff. Court Reporter: Koretta Stanford (NBL) (Entered: 02/24/2016)	
☐	Free	143	02/24/2016	COURT'S INSTRUCTIONS to the Jury (NBL) (Entered: 02/24/2016)	
☐	Free	144	02/24/2016	JURY VERDICT in favor of the Plaintiff.(NBL) (Entered: 02/24/2016)	
☐	Free	145	02/25/2016	PLAINTIFF and JOINT Exhibit List (Trial) by Omega Patents, LLC. (NBL) (Additional attachment(s) added on 8/3/2017: # 1 Exhibit Joint 1, # 2 Exhibit Joint 3, # 3 Exhibit Joint 4, # 4 Exhibit Joint 5, # 5 Exhibit Joint 6 Part 1, # 6 Exhibit Joint 6 Part 2, # 7	

☐	Availability	#	Date	Proceeding Text	Source
				Exhibit Joint 6 Part 3, # 8 Exhibit Joint 6 Part 4, # 9 Exhibit Joint 6 Part 5, # 10 Exhibit Joint 6 Part 6, # 11 Exhibit Joint 6 Part 7, # 12 Exhibit Joint 8, # 13 Exhibit Joint 9, # 14 Exhibit Joint 10, # 15 Exhibit Joint 11, # 16 Exhibit Joint 12, # 17 Exhibit Joint 13, # 18 Exhibit Joint 14, # 19 Exhibit 1, # 20 Exhibit 2, # 21 Exhibit 3, # 22 Exhibit 4, # 23 Exhibit 5, # 24 Exhibit 6, # 25 Exhibit 8, # 26 Exhibit 9, # 27 Exhibit 10, # 28 Exhibit 11, # 29 Exhibit 12, # 30 Exhibit 14, # 31 Exhibit 15, # 32 Exhibit 16, # 33 Exhibit 17, # 34 Exhibit 18, # 35 Exhibit 19, # 36 Exhibit 20, # 37 Exhibit 21, # 38 Exhibit 22, # 39 Exhibit 23, # 40 Exhibit 38, # 41 Exhibit 39, # 42 Exhibit 45, # 43 Exhibit 47, # 44 Exhibit 48, # 45 Exhibit 49, # 46 Exhibit 59, # 47 Exhibit 60, # 48 Exhibit 62, # 49 Exhibit 63, # 50 Exhibit 64, # 51 Exhibit 65, # 52 Exhibit 66, # 53 Exhibit 67, # 54 Exhibit 68, # 55 Exhibit 69, # 56 Exhibit 70, # 57 Exhibit 71, # 58 Exhibit 72, # 59 Exhibit 73, # 60 Exhibit 74, # 61 Exhibit 75, # 62 Exhibit 76, # 63 Exhibit 77, # 64 Exhibit 78, # 65 Exhibit 79, # 66 Exhibit 80, # 67 Exhibit 81, # 68 Exhibit 82, # 69 Exhibit 83, # 70 Exhibit 84, # 71 Exhibit 85, # 72 Exhibit 86, # 73 Exhibit 88, # 74 Exhibit 90, # 75 Exhibit 92, # 76 Exhibit 93, # 77 Exhibit 96, # 78 Exhibit 97, # 79 Exhibit 98, # 80 Exhibit 99, # 81 Exhibit 100, # 82 Exhibit 101, # 83 Exhibit 102, # 84 Exhibit 103, # 85 Exhibit 104, # 86 Exhibit 105, # 87 Exhibit 106, # 88 Exhibit 141, # 89 Exhibit 154, # 90 Exhibit 156, # 91 Exhibit 159, # 92 Exhibit 160, # 93 Exhibit 161, # 94 Exhibit 162, # 95 Exhibit 163, # 96 Exhibit 164) (AKJ). (Entered: 02/25/2016)	

	Availability	#	Date	Proceeding Text	Source
☐	Free	146	02/25/2016	DEFENDANT Exhibit List (Trial) by CalAmp Corp. (NBL) (Additional attachment(s) added on 8/3/2017: # 1 Exhibit 2, # 2 Exhibit 4, # 3 Exhibit 5, # 4 Exhibit 6, # 5 Exhibit 10, # 6 Exhibit 11, # 7 Exhibit 12, # 8 Exhibit 17, # 9 Exhibit 24, # 10 Exhibit 26, # 11 Exhibit 27, # 12 Exhibit 28, # 13 Exhibit 29, # 14 Exhibit 30, # 15 Exhibit 31, # 16 Exhibit 32, # 17 Exhibit 33, # 18 Exhibit 34, # 19 Exhibit 37, # 20 Exhibit 38 part 1, # 21 Exhibit 38 part 2, # 22 Exhibit 38 part 3, # 23 Exhibit 38 part 4, # 24 Exhibit 38 part 5, # 25 Exhibit 39, # 26 Exhibit 40, # 27 Exhibit 41, # 28 Exhibit 42, # 29 Exhibit 43, # 30 Exhibit 44, # 31 Exhibit 45, # 32 Exhibit 46, # 33 Exhibit 47 part 1, # 34 Exhibit 47 part 2, # 35 Exhibit 47 part 3, # 36 Exhibit 47 part 4, # 37 Exhibit 47 part 5, # 38 Exhibit 47 part 6, # 39 Exhibit 48, # 40 Exhibit 49, # 41 Exhibit 50, # 42 Exhibit 51, # 43 Exhibit 52, # 44 Exhibit 54, # 45 Exhibit 55, # 46 Exhibit 56, # 47 Errata 57, # 48 Exhibit 58, # 49 Exhibit 59, # 50 Exhibit 65, # 51 Exhibit 66, # 52 Exhibit 67, # 53 Exhibit 68, # 54 Exhibit 69, # 55 Exhibit 70, # 56 Exhibit 71, # 57 Exhibit 73, # 58 Exhibit 74, # 59 Exhibit 75, # 60 Exhibit 76, # 61 Exhibit 77, # 62 Exhibit 78, # 63 Exhibit 79, # 64 Exhibit 80, # 65 Exhibit 81) (AKJ). (Entered: 02/25/2016)	
☐	Free	147	02/25/2016	COURT'S EXHIBIT LIST (Trial)(NBL) (Additional attachment(s) added on 8/1/2017: # 1 Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3, # 4 Exhibit 4, # 5 Exhibit 5, # 6 Exhibit 6, # 7 Exhibit 7, # 8 Exhibit 8, # 9 Exhibit 9, # 10 Exhibit 10, # 11 Exhibit 11, # 12 Exhibit 12, # 13 Exhibit 13, # 14 Exhibit 14, # 15 Exhibit 15) (AKJ). (Entered: 02/25/2016)	

	Availability	#	Date	Proceeding Text	Source
☐	Free	148	03/09/2016	MOTION and Memorandum for Entry of Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction judgment by Omega Patents, LLC. (Gilchrist, Brian) Text modified on 3/10/2016 (RDO). (Entered: 03/09/2016)	
☐	Online	149	03/09/2016	PROPOSED BILL OF COSTS by Omega Patents, LLC. (Attachments: # 1 Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3, # 4 Exhibit 4, # 5 Exhibit 5)(Gilchrist, Brian) (Entered: 03/09/2016)	
☐	Online	150	03/14/2016	UNOPPOSED MOTION for Leave to File a Motion in Excess of Twenty-Five Pages by Calamp Corp.. (Kauth, Joel) Text modified on 3/15/2016 (RDO). (Entered: 03/14/2016)	
☐	Runner	151	03/15/2016	ENDORSED ORDER granting in part 150 Motion for Leave to File Excess Pages. Defendant may file a post-trial motion with a page limit of 35 pages and Plaintiff may file a response with a page limit of 30 pages. Signed by Judge Paul G. Byron on 3/15/2016. (MMW) (Entered: 03/15/2016)	
☐	Online	152	03/16/2016	MOTION and Memorandum for miscellaneous relief, specifically to Award Prejudgment Interest by Omega Patents, LLC. (Attachments: # 1 Exhibit A) (Gilchrist, Brian) Text modified on 3/17/2016 (RDO). (Entered: 03/16/2016)	
☐	Runner	153	03/18/2016	ENDORSED ORDER denying without prejudice for failure to comply with Local Rule 3.01(g) 152 Motion to Award Prejudgment Interest. Signed by Judge Paul G. Byron on 3/18/2016. (MMW) (Entered: 03/18/2016)	
☐	Online	154	03/18/2016	MOTION for miscellaneous relief, specifically Renewed Motion to Award Prejudgment Interest by Omega Patents, LLC. (Attachments: # 1 Exhibit A) (Gilchrist, Brian) (Entered: 03/18/2016)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	155	03/22/2016	MOTION for Extension of Time to File and Enlargement of the Page Limitation for its Response to 148 MOTION for Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction judgment by Calamp Corp.. (Kauth, Joel) Motions referred to Magistrate Judge David A. Baker. Text modified on 3/23/2016 (RDO). (Entered: 03/22/2016)	
☐	Online	156	03/24/2016	MOTION for Charles R. Halloran to withdraw as attorney by Calamp Corp.. (Halloran, Charles) Motions referred to Magistrate Judge David A. Baker. (Entered: 03/24/2016)	
☐	Online	157	03/24/2016	MOTION for Eugene K. Chong to withdraw as attorney by Calamp Corp.. (Chong, Eugene) Motions referred to Magistrate Judge David A. Baker. (Entered: 03/24/2016)	
☐	Runner	158	03/25/2016	ENDORSED ORDER granting 156 Motion to Withdraw as Attorney Attorney Eugene Chong and Charles R. Halloran terminated; granting 157 Motion to Withdraw as Attorney. Signed by Magistrate Judge David A. Baker on 3/25/2016. (Baker, David) (Entered: 03/25/2016)	
☐	Online	159	03/25/2016	RESPONSE in Opposition re 155 MOTION for Extension of Time to File Response/Reply as to 148 MOTION for Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction judgment filed by Omega Patents, LLC. (Gilchrist, Brian) (Entered: 03/25/2016)	
☐	Online	160	03/28/2016	MOTION for Stephanie P. Koh to appear pro hac vice by Calamp Corp.. (Wozniak, Carrie) Motions referred to Magistrate Judge David A. Baker. (Entered: 03/28/2016)	
☐	Online	161	03/28/2016	MOTION for Thomas D. Rein to appear pro hac vice by Calamp Corp.. (Wozniak, Carrie) Motions referred	

	Availability	#	Date	Proceeding Text	Source
				to Magistrate Judge David A. Baker. (Entered: 03/28/2016)	
☐	Online	162	03/28/2016	MOTION for Constantine L. Trela, Jr. to appear pro hac vice by Calamp Corp.. (Wozniak, Carrie) Motions referred to Magistrate Judge David A. Baker. (Entered: 03/28/2016)	
☐	Runner		03/28/2016	***PRO HAC VICE FEES paid and Special Admission Attorney Certification Form filed by attorney Constantine L. Trela, appearing on behalf of Calamp Corp. (Filing fee $150 receipt number ORL052203.) Related document: 162 MOTION for Constantine L. Trela, Jr. to appear pro hac vice. (RDO) (Entered: 03/28/2016)	
☐	Runner		03/28/2016	***PRO HAC VICE FEES paid and Special Admission Attorney Certification Form filed by attorney Thomas D. Rein, appearing on behalf of Calamp Corp. (Filing fee $150 receipt number ORL052202.) Related document: 161 MOTION for Thomas D. Rein to appear pro hac vice. (RDO) (Entered: 03/28/2016)	
☐	Runner		03/28/2016	***PRO HAC VICE FEES paid and Special Admission Attorney Certification Form filed by attorney Stephanie P. Koh, appearing on behalf of Calamp Corp. (Filing fee $150 receipt number ORL052205.) Related document: 160 MOTION for Stephanie P. Koh to appear pro hac vice. (RDO) (Entered: 03/28/2016)	
☐	Runner	163	03/28/2016	ENDORSED ORDER granting in part and denying in part 155 Defendant Calamp Corp.'s Motion for Extension of Time to File and Enlargement of the Page Limitation for its Response to Plaintiff's Motion for Entry of Judgment. Calamp shall file its response to Plaintiff's Motion and Memorandum for Entry of Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction on or before April 11, 2016. The response shall not exceed thirty (30) pages in length. Signed by Judge Paul G. Byron on 3/28/2016. (RML)	

	Availability	#	Date	Proceeding Text (03/29/2016)	Source
☐	Runner		03/29/2016	Set/reset deadlines as to 148 MOTION for Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction judgment . Responses due by 4/11/2016 (RDO) (Entered: 03/29/2016)	
☐	Runner	164	03/30/2016	ENDORSED ORDER granting 160 motion to appear pro hac vice; granting 161 motion to appear pro hac vice; granting 162 motion to appear pro hac vice. Provided, all counsel shall register for and use the electronic filing system as adopted by the Court. After this Order, the Clerk will no longer send copies of docket entries by U.S. Mail to counsel in this case. Appearance and participation by more than one attorney at any hearing or trial is subject to the discretion of the presiding judge. Signed by Magistrate Judge David A. Baker on 3/30/2016. (Baker, David) (Entered: 03/30/2016)	
☐	Online	165	03/31/2016	MOTION for Bryan C. Mulder to appear pro hac vice by Calamp Corp.. (Wozniak, Carrie) Motions referred to Magistrate Judge David A. Baker. (Entered: 03/31/2016)	
☐	Runner		03/31/2016	***PRO HAC VICE FEES paid and Special Admission Attorney Certification Form filed by attorney Bryan C. Mulder, appearing on behalf of Calamp Corp. (Filing fee $150 receipt number ORL052334.) Related document: 165 MOTION for Bryan C. Mulder to appear pro hac vice. (RDO) (Entered: 03/31/2016)	
☐	Online	166	04/04/2016	RESPONSE in Opposition re 154 MOTION for miscellaneous relief, specifically Renewed Motion to Award Prejudgment Interest filed by Calamp Corp.. (Kauth, Joel) (Entered: 04/04/2016)	

	Availability	#	Date	Proceeding Text	Source
☐	Runner	167	04/05/2016	ENDORSED ORDER granting 165 motion to appear pro hac vice. Provided, all counsel shall register for and use the electronic filing system as adopted by the Court. After this Order, the Clerk will no longer send copies of docket entries by U.S. Mail to counsel in this case. Appearance and participation by more than one attorney at any hearing or trial is subject to the discretion of the presiding judge. Signed by Magistrate Judge David A. Baker on 4/5/2016. (Baker, David) (Entered: 04/05/2016)	
☐	Online	168	04/08/2016	MOTION to Review 149 Bill of Costs (filed as Response in Opposition/Objection) filed by Calamp Corp. (Kauth, Joel) Modified on 4/25/2016 (LMM). Motions referred to Magistrate Judge David A. Baker. (Entered: 04/08/2016)	
☐	Online	169	04/11/2016	RESPONSE in Opposition re 148 MOTION for Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction judgment filed by Calamp Corp.. (Kauth, Joel) (Entered: 04/11/2016)	
☐	Online	170	04/11/2016	APPENDIX re 169 Response in Opposition to Motion by Calamp Corp.. (Attachments: # 1 Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3, # 4 Exhibit 4, # 5 Exhibit 5, # 6 Exhibit 6, # 7 Exhibit 7, # 8 Exhibit 8, # 9 Exhibit 9, # 10 Exhibit 10, # 11 Exhibit 11, # 12 Exhibit 12, # 13 Exhibit 13, # 14 Exhibit 14, # 15 Exhibit 15, # 16 Exhibit 16, # 17 Exhibit 17, # 18 Exhibit 18, # 19 Exhibit 19, # 20 Exhibit 20, # 21 Exhibit 21, # 22 Exhibit 22, # 23 Exhibit 23, # 24 Exhibit 24)(Kauth, Joel) (Entered: 04/11/2016)	
☐	Online	171	04/11/2016	MOTION for miscellaneous relief, specifically Request for Hearing re 148 Motion for Entry of Final Judgment by Calamp Corp.. (Kauth, Joel) Modified on 4/12/2016 (RDO). (Entered: 04/11/2016)	

	Availability	#	Date	Proceeding Text	Source
☐	Runner	172	04/14/2016	ENDORSED ORDER granting 171 Defendant's Motion for Hearing Regarding Plaintiff's Motion for Entry of Final Judgment, Including Entitlement to Attorney's Fees, Enhanced Damages, and Entry of a Permanent Injunction. A separate Notice of Hearing will follow. Signed by Judge Paul G. Byron on 4/14/2016. (RML) (Entered: 04/14/2016)	
☐	Runner	173	04/14/2016	NOTICE OF MOTION HEARING: re 148 MOTION for Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction judgment. Motion Hearing is set for Tuesday, 4/26/2016 at 2:00 PM in Orlando Courtroom 4 B before Judge Paul G. Byron, U.S. District Court, 401 West Central Blvd., Orlando, Florida. The Court has set aside (3) hours for this hearing. (NBL) copies e-mailed (Entered: 04/14/2016)	
☐	Online	174	04/18/2016	Unopposed MOTION for miscellaneous relief, specifically Reschedule Hearing (Currently Scheduled for April 26, 2016) by Omega Patents, LLC. (Santurri, Ryan) (Entered: 04/18/2016)	
☐	Runner	175	04/19/2016	ENDORSED ORDER granting 174 Plaintiff's Unopposed Motion to Reschedule Hearing. A separate Notice of Hearing will follow. Signed by Judge Paul G. Byron on 4/19/2016. (RML) (Entered: 04/19/2016)	
☐	Runner	176	04/19/2016	NOTICE RESCHEDULING MOTION HEARING re 148 MOTION for Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction judgment. Motion Hearing is rescheduled for 5/2/2016 at 1:30 PM in Orlando Courtroom 4 B before Judge Paul G. Byron, U.S. District Court, 401 West Central Blvd., Orlando, Florida. The Court has set aside (3) hours for this hearing. *(previously set for 4/26/16)(NBL) copies	

	Availability	#	Date	Proceedings Text (Filed: 04/19/2016)	Source
☐	Online	177	04/22/2016	RESPONSE in opposition to 168 Motion to Review Bill of Costs filed by Omega Patents, LLC. (Attachments: # 1 Exhibit A, # 2 Exhibit B) (Santurri, Ryan) Modified on 4/25/2016 (LMM). Modified on 4/25/2016 (LMM). (Entered: 04/22/2016)	
☐	Free	178	04/25/2016	TRANSCRIPT of Civil Jury Trial - Day 1 held on 2/16/16 before Judge Paul G. Byron. Court Reporter/Transcriber Koretta Stanford, Telephone number 407-872-1715 or skoretta@bellsouth.net. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 5/16/2016, Redacted Transcript Deadline set for 5/26/2016, Release of Transcript Restriction set for 7/25/2016. (KS) (Entered: 04/25/2016)	
☐	Free	179	04/25/2016	TRANSCRIPT of Civil Jury Trial - Day 2 held on 02/17/16 before Judge Paul G. Byron. Court Reporter/Transcriber Koretta Stanford, Telephone number 407-872-1715. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 5/16/2016, Redacted Transcript Deadline set for 5/26/2016, Release of Transcript Restriction set for 7/25/2016. (KS) (Entered: 04/25/2016)	

	Availability	#	Date	Proceeding Text	Source
☐	Free	180	04/25/2016	TRANSCRIPT of Civil Jury Trial - Day 3 held on 02/18/16 before Judge Paul G. Byron. Court Reporter/Transcriber Koretta Stanford,Telephone number 407-872-1715. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 5/16/2016, Redacted Transcript Deadline set for 5/26/2016, Release of Transcript Restriction set for 7/25/2016. (KS) (Entered: 04/25/2016)	
☐	Free	181	04/25/2016	TRANSCRIPT of Civil Jury Trial - Day 4 held on 2/19/16 before Judge Paul G. Byron. Court Reporter/Transcriber Koretta Stanford,Telephone number 407-872-1715. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 5/16/2016, Redacted Transcript Deadline set for 5/26/2016, Release of Transcript Restriction set for 7/25/2016. (KS) (Entered: 04/25/2016)	
☐	Free	182	04/25/2016	TRANSCRIPT of Civil Jury Trial - Day 5 held on 2/22/16 before Judge Paul G. Byron. Court Reporter/Transcriber Koretta Stanford, Telephone number 407-872-1715. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 5/16/2016, Redacted Transcript Deadline set for 5/26/2016, Release of Transcript Restriction set for	

	Availability	#	Date	Proceeding Text	Source
				7/25/2016. (KS) (Entered: 04/25/2016)	
☐	Free	183	04/25/2016	TRANSCRIPT of Civil Jury Trial - Day 6 held on 2/23/16 before Judge Paul G. Byron. Court Reporter/Transcriber Koretta Stanford,Telephone number 407-872-1715. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 5/16/2016, Redacted Transcript Deadline set for 5/26/2016, Release of Transcript Restriction set for 7/25/2016. (KS) (Entered: 04/25/2016)	
☐	Free	184	04/25/2016	TRANSCRIPT of Civil Jury Trial - Day 7 held on 2/24/16 before Judge Paul G. Byron. Court Reporter/Transcriber Koretta Stanford,Telephone number 407-872-1715. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 5/16/2016, Redacted Transcript Deadline set for 5/26/2016, Release of Transcript Restriction set for 7/25/2016. (KS) (Entered: 04/25/2016)	
☐	Runner	185	04/25/2016	NOTICE to counsel of filing of OFFICIAL TRANSCRIPT, Doc 178 through 184. The parties have seven (7) calendar days to file with the court a Notice of Intent to Request Redaction of this transcript. If no such Notice is filed, the transcript may be made remotely electronically available to the public without redaction after 90 calendar days. Any party needing a copy of the transcript to review for redaction purposes may purchase a copy from the court reporter or view the document at the clerk's office public terminal. Court Reporter:	

	Availability	#	Date	Proceeding Text	Source
				Koretta Stanford. (KS) (Entered: 04/25/2016)	
☐	Online	186	04/26/2016	ORDER denying without prejudice 168 Motion to review bill of costs. Signed by Magistrate Judge David A. Baker on 4/26/2016. (SWT) (Entered: 04/26/2016)	
☐	Online	187	04/28/2016	NOTICE by Omega Patents, LLC of Filing Declarations (Attachments: # 1 Exhibit Declaration of Robert Leale II, # 2 Exhibit Declaration of Thomas Malone)(Santurri, Ryan) (Entered: 04/28/2016)	
☐	Online	188	04/29/2016	NOTICE by Calamp Corp. re 187 Notice (Other) of Filing Responsive Declarations (Attachments: # 1 Exhibit Declaration of Wade Files, # 2 Exhibit Declaration of Wade Huber)(Kauth, Joel) (Entered: 04/29/2016)	
☐	Free	189	05/02/2016	Minute Entry (MOTION HEARING) Proceedings held before Judge Paul G. Byron on 5/2/2016 re 148 MOTION for Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction judgment filed by Omega Patents, LLC. Written Order to issue.Court Reporter: Koretta Stanford (NBL) (Entered: 05/03/2016)	
☐	Online	190	05/12/2016	TRANSCRIPT of the final pretrial conference held on 1/20/16 before Judge Paul G. Byron. Court Reporter/Transcriber Diane Peede, FlaDiane@att.net, telephone number 407-615-0305. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER or purchased through the Court Reporter.. Redaction Request due 6/2/2016, Redacted Transcript Deadline set for 6/13/2016, Release of Transcript Restriction set for 8/10/2016. (DP) (Entered: 05/12/2016)	

	Availability	#	Date	Proceeding Text	Source
☐	Runner	191	05/12/2016	NOTICE to counsel of filing of OFFICIAL TRANSCRIPT (Doc. No. 190). The parties have seven (7) calendar days to file with the court a Notice of Intent to Request Redaction of this transcript. If no such Notice is filed, the transcript may be made remotely electronically available to the public without redaction after 90 calendar days. Any party needing a copy of the transcript to review for redaction purposes may purchase a copy from the court reporter or view the document at the clerk's office public terminal. Court Reporter: Diane Peede. (DP) (Entered: 05/12/2016)	
☐	Free	192	05/17/2016	NOTICE of supplemental authority re 169 Response in Opposition to 148 Motion for entry of Judgment by Calamp Corp.. (Attachments: # 1 Exhibit 1) (Kauth, Joel) Modified on 5/18/2016 (RDO). (Entered: 05/17/2016)	
☐	Online	193	06/06/2016	NOTICE of Grant of Reexamination of '885 Patent re 169 Response in Opposition to Motion by Calamp Corp.. (Attachments: # 1 Exhibit 1)(Kauth, Joel) Text modified on 6/7/2016 (RDO). (Entered: 06/06/2016)	
☐	Free	194	06/13/2016	NOTICE of supplemental authority re 148 MOTION for Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction judgment by Omega Patents, LLC. (Attachments: # 1 Exhibit A)(Gilchrist, Brian) (Entered: 06/13/2016)	
☐	Online	195	06/14/2016	RESPONSE re 194 Notice of filing supplemental authority by Calamp Corp.. (Wozniak, Carrie) (Entered: 06/14/2016)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	196	06/22/2016	TRANSCRIPT of Motion Hearing held on 05/02/16 before Judge Paul G. Byron. Court Reporter/Transcriber Koretta Stanford, Telephone number 407-872-1715 or skoretta@bellsouth.net. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 7/13/2016, Redacted Transcript Deadline set for 7/25/2016, Release of Transcript Restriction set for 9/20/2016. (KS) (Entered: 06/22/2016)	
☐	Runner	197	06/22/2016	NOTICE to counsel of filing of OFFICIAL TRANSCRIPT, Doc. 196. The parties have seven (7) calendar days to file with the court a Notice of Intent to Request Redaction of this transcript. If no such Notice is filed, the transcript may be made remotely electronically available to the public without redaction after 90 calendar days. Any party needing a copy of the transcript to review for redaction purposes may purchase a copy from the court reporter or view the document at the clerk's office public terminal. Court Reporter: Koretta Stanford. (KS) (Entered: 06/22/2016)	
☐	Online	198	07/19/2016	RESPONSE re 192 Notice of filing supplemental authority filed by Omega Patents, LLC. (Attachments: # 1 Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3)(Gilchrist, Brian) (Entered: 07/19/2016)	
☐	Online	199	07/22/2016	REPLY to 198 Response filed by Calamp Corp.. (Attachments: # 1 Exhibit 1, Beckert, # 2 Exhibit 2, Suman, # 3 Exhibit 3, 11850, # 4 Exhibit 4, 32178, # 5 Exhibit 5, 876 Claim Chart)(Mulder, Bryan) Text modified on 7/25/2016 (RDO). (Entered: 07/22/2016)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	200	08/30/2016	NOTICE of supplemental authority re 169 Response in Opposition to Motion by Calamp Corp.. (Wozniak, Carrie) (Entered: 08/30/2016)	
☐	Online	201	08/30/2016	NOTICE of supplemental authority re 169 Response in Opposition to Motion by Calamp Corp.. (Attachments: # 1 Exhibit 1)(Wozniak, Carrie) (Entered: 08/30/2016)	
☐	Online	202	09/19/2016	NOTICE of supplemental authority re 169 Response in Opposition to Motion for Entry of Final Judgment by Calamp Corp.. (Attachments: # 1 Exhibit 1) (Wozniak, Carrie) (Entered: 09/19/2016)	
☐	Runner	203	10/03/2016	Case Reassigned to Magistrate Judge Daniel C. Irick. New case number: 6:13-cv-1950-ORL-40-DCI. Magistrate Judge David A. Baker no longer assigned to the case. (EJS) (Entered: 10/03/2016)	
☐	Runner	204	10/21/2016	ENDORSED ORDER: The Court has taken the various notices of supplemental authority and related declarations and exhibits under advisement and is currently drafting its opinion. Prior to submitting any additional material relating to the post trial motions, the proponent SHALL seek leave of Court. Signed by Judge Paul G. Byron on 10/21/2016. (MMW) (Entered: 10/21/2016)	
☐	Online	205	03/20/2017	MOTION for miscellaneous relief, specifically Motion for Status Conference by Omega Patents, LLC. (Gilchrist, Brian) (Entered: 03/20/2017)	
☐	Free	206	04/05/2017	ORDER granting in part and denying in part 148 Motion for Entry of Final Judgment, Including Entitlement to Attorneys' Fees, Enhanced Damages, and Entry of a Permanent Injunction. The Motion is granted as to entry of final judgment, attorneys' fees, and enhanced damages. The Motion is denied as to the request for entry of a permanent injunction. Plaintiff's 154 Renewed Motion to Award Prejudgment Interest is also granted. Signed by	

	Availability	#	Date	Proceeding Text	Source
				Judge Paul G. Byron on 4/5/2017. (ALJ) (RDO). (Entered: 04/05/2017)	
	Runner	207	04/05/2017	ENDORSED ORDER denying as moot 205 Motion for Status Conference by Omega Patents, LLC. The Motion is rendered moot by the Court's Order entered on April 5, 2017 206. Signed by Judge Paul G. Byron on 4/5/2017. (ALJ) (Entered: 04/05/2017)	
	Online	208	04/19/2017	NOTICE by Omega Patents, LLC of Firm Name Change (Gilchrist, Brian) (Entered: 04/19/2017)	
	Online	209	04/19/2017	STIPULATION Regarding Attorneys' Fees and Costs by both parties. (Gilchrist, Brian) Modified on 4/20/2017 (RDO). (Entered: 04/19/2017)	
	Online	210	04/19/2017	STIPULATION for Entry of Proposed Final Judgment by both parties. (Attachments: # 1 Text of Proposed Order)(Gilchrist, Brian) Modified on 4/20/2017 (RDO). (Entered: 04/19/2017)	
	Free	211	04/24/2017	FINAL JUDGMENT. Signed by Judge Paul G. Byron on 4/24/2017. (ALJ) (Entered: 04/24/2017)	
	Runner	212	04/24/2017	ENDORSED ORDER directing the Clerk of Court to close the file. Signed by Judge Paul G. Byron on 4/24/2017. (ALJ) (Entered: 04/24/2017)	
	Online	213	04/25/2017	Patent Report sent to Alexandria, VA. (Attachments: # 1 Judgment, # 2 Complaint) (RDO) (Entered: 04/25/2017)	
	Online	214	05/08/2017	MOTION to **Stay** Execution of 211 Judgment pending post-trial motions and for approval of supersedeas bond by Calamp Corp.. (Attachments: # 1 Exhibit A, # 2 Exhibit B)(Wozniak, Carrie) Modified on 5/9/2017 (RDO). (Entered: 05/08/2017)	
	Online	215	05/12/2017	RESPONSE in Opposition re 214 MOTION to **Stay** Execution of 211 Judgment pending post-trial motions and for approval of supersedeas bond filed by Omega Patents, LLC. (Gilchrist, Brian) (Entered: 05/12/2017)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	216	05/22/2017	RENEWED MOTION for judgment as a matter of law , MOTION for New Trial by Calamp Corp.. (Attachments: # 1 Exhibit 1, JE1 - US Patent No 6,346,876, # 2 Exhibit 2, JE3 - US Patent No 6,756,885, # 3 Exhibit 3, PTX104 (excerpts), # 4 Exhibit 4, JE5 - US Patent No 8,032,278, # 5 Exhibit 5, JE4 - US Patent No 7,671,727, # 6 Exhibit 6, 8-18-14 Hergenhelmer Tr (excerpts), # 7 Exhibit 7, Biberger Tr (excerpts), # 8 Exhibit 8, PTX161, # 9 Exhibit 9, 4-22-15 Hergenhelmer Tr (excerpts), # 10 Exhibit 10, 885 reexam office action, # 11 Exhibit 11, PTX38, # 12 Exhibit 12, PTX47, # 13 Exhibit 13, PTX14, # 14 Exhibit 14, CalAmp 2016 10K (excerpts), # 15 Exhibit 15, DTX73 (excerpts), # 16 Exhibit 16, DTX74 (excerpts), # 17 Exhibit 17, DTX75 (excerpts), # 18 Exhibit 18, 278 reexam office action, # 19 Exhibit 19, 727 reexam office action, # 20 Exhibit 20, 876 reexam office action, # 21 Exhibit 21, 727 reexam 5-13-17 response, # 22 Exhibit 22, Chen Tr (excerpts), # 23 Exhibit 23 - McDuff Report (excerpts))(Mulder, Bryan) Modified on 5/23/2017 (RDO). (Entered: 05/22/2017)	
☐	Online	217	05/23/2017	CERTIFICATE of compliance with Rule 3.01(g) re 216 MOTION for judgment as a matter of law MOTION for New Trial by Calamp Corp.. (Wozniak, Carrie) Modified on 5/24/2017 (RDO). (Entered: 05/23/2017)	
☐	Online	218	05/23/2017	STIPULATION Regarding Supplemental and On-going Royalties by both parties. (Attachments: # 1 Text of Proposed Order)(Gilchrist, Brian) Modified on 5/24/2017 (RDO). (Entered: 05/23/2017)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	219	05/31/2017	Unopposed MOTION for Extension of Time until 7/5/2017 to File Response/Reply as to 216 MOTION for judgment as a matter of law MOTION for New Trial by Omega Patents, LLC. (Gilchrist, Brian) Motions referred to Magistrate Judge Daniel C. Irick. Text modified on 6/1/2017 (RDO). (Entered: 05/31/2017)	
☐	Runner	220	06/01/2017	ENDORSED ORDER granting 219 Unopposed Motion for Extension of Time to Respond to Defendant's Renewed Motion for Judgment as a Matter of Law and for New Trial. Plaintiff's response shall be due on or before July 5, 2017. Additional extensions should not be sought absent extraordinary good cause. Signed by Magistrate Judge Daniel C. Irick on 6/1/2017. (Irick, Daniel) (Entered: 06/01/2017)	
☐	Online	221	06/01/2017	STIPULATION to **Stay** Execution of 211 Final Judgment Secured by Supersedeas Bond by both parties. (Attachments: # 1 Exhibit, # 2 Text of Proposed Order)(Kauth, Joel) Modified on 6/2/2017 (RDO). (Entered: 06/01/2017)	
☐	Runner		06/02/2017	Set/reset deadlines as to 216 MOTION for judgment as a matter of law MOTION for New Trial . Responses due by 7/5/2017 (RDO) (Entered: 06/02/2017)	
☐	Free	222	06/02/2017	MOTION to Vacate 211 Final Judgment and Dismiss the Case for Lack of Venue by Calamp Corp.. (Attachments: # 1 Declaration of Garo Sarkissian) (Mulder, Bryan) Text modified on 6/5/2017 (RDO). (Entered: 06/02/2017)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	223	06/02/2017	ORDER re 221 Stipulation filed by Calamp Corp. The execution of the Final Judgment, and any Amended Judgment, and any proceedings to enforce either, are hereby **STAYED** pending disposition of post-trial motions, and any subsequent appeal. CalAmp SHALL post a supersedeas bond in the amount of $17,000,000.00 within 21 days of this order. The terms of the Stipulation to **Stay** Execution of Judgment (Doc. 221) are INCORPORATED and made part of this order. Hartford Fire Insurance Company is approved as the surety for such bond. CalAmp's currently pending Motion for **Stay** (Doc. 214) is DENIED AS MOOT. Signed by Judge Paul G. Byron on 6/2/2017. (MMW) (Entered: 06/02/2017)	
☐	Online	224	06/12/2017	NOTICE of Filing Supersedeas Bond by Calamp Corp. re 223 Order (Attachments: # 1 Exhibit A)(Wozniak, Carrie) Text modified on 6/13/2017 (RDO). (Entered: 06/12/2017)	
☐	Free	225	06/16/2017	RESPONSE in Opposition re 222 MOTION to Vacate 211 Final Judgment and Dismiss the Case for Lack of Venue filed by Omega Patents, LLC. (Santurri, Ryan) (Entered: 06/16/2017)	
☐	Online	226	07/05/2017	RESPONSE in Opposition re 216 MOTION for judgment as a matter of law MOTION for New Trial filed by Omega Patents, LLC. (Gilchrist, Brian) (Entered: 07/05/2017)	
☐	Free	227	07/19/2017	AMENDED FINAL JUDGMENT. Signed by Judge Paul G. Byron on 7/19/2017. (MMW) Text modified on 7/20/2017 (RDO). (Entered: 07/19/2017)	
☐	Online	228	07/26/2017	Supplemental MOTION for judgment as a matter of law , for a new trial, and to vacate the judgment by Calamp Corp.. (Mulder, Bryan) (Entered: 07/26/2017)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	229	08/01/2017	RESPONSE in Opposition re 228 Supplemental MOTION for judgment as a matter of law , for a new trial, and to vacate the judgment filed by Omega Patents, LLC. (Gilchrist, Brian) (Entered: 08/01/2017)	
☐	Free	230	09/22/2017	ORDER denying 222 Motion to Vacate the Judgment and Dismiss for Lack of Venue. Signed by Judge Paul G. Byron on 9/22/2017. (ALJ) (Entered: 09/22/2017)	
☐	Online	231	11/14/2017	ORDER denying 216 CalAmp's Renewed Motion for Judgment as a Matter of Law and for a New Trial; denying 228 CalAmp's Supplemental Renewed Motion for Judgment as a Matter of Law, for a New Trial, and to Vacate the Judgment. Signed by Judge Paul G. Byron on 11/14/2017. (JRJ) (Entered: 11/14/2017)	
☐	Online	232	12/11/2017	NOTICE OF APPEAL as to 227 Order, 211 Order, 206 Order on motion for judgment Order on Motion for Miscellaneous Relief, 230 Order on Motion to Vacate, 50 Order, 118 Order on motion for summary judgment, 125 Order on Motion in Limine, 117 Order on Motion for Miscellaneous Relief, 122 Order on Motion in Limine, 231 Order on Motion for Judgment as a Matter of Law Order on Motion for New Trial by Calamp Corp. Filing fee not paid. (Mulder, Bryan) (Entered: 12/11/2017)	
☐	Online	233	12/12/2017	TRANSMITTAL of initial appeal package to USCA for the Federal Circuit by email to appeal@cafc.uscourts.gov consisting of copies of notice of appeal, docket sheet, order/judgment being appealed, and motion, if applicable to USCA re 232 Notice of appeal. Transcript information form forwarded to pro se litigants and available to counsel at www.flmd.uscourts.gov under Forms and Publications/General. (JEV) (Entered: 12/12/2017)	

	Availability	#	Date	Proceeding Text	Source
☐	Runner		12/14/2017	USCA appeal fees received $ 505 receipt number Ori-069431 re 232 Notice of appeal filed by Calamp Corp. (JEV) (Entered: 12/14/2017)	
☐	Runner		12/14/2017	TRANSMITTAL to USCA for the Federal Circuit by email to appeal@cafc.uscourts.gov forwarding notification of fee payment received re 232 Notice of appeal. (JEV) (Entered: 12/14/2017)	
☐	Online	234	12/21/2017	TRANSCRIPT information form filed by Calamp Corp. for proceedings held on 11/24/14 before Judge Paul G. Byron re 232 Notice of appeal. USCA number: 18-1309. (Wozniak, Carrie) (Entered: 12/21/2017)	
☐	Online	235	01/05/2018	COURT REPORTER ACKNOWLEDGMENT by Koretta Stanford re 232 Notice of appeal Estimated transcript filing date: 02/05/18. USCA number: 18-1309. (KS) (Entered: 01/05/2018)	
☐	Online	236	02/12/2018	TRANSCRIPT of Claims Construction Hearing held on 11/24/14 before Judge Paul G. Byron re 232 Notice of appeal. Court Reporter/Transcriber Koretta Stanford, Telephone number stanarm2014@gmail.com. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date, it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 3/5/2018, Redacted Transcript Deadline set for 3/15/2018, Release of Transcript Restriction set for 5/14/2018. (KS) (Entered: 02/12/2018)	

	Availability	#	Date	Proceeding Text	Source
☐	Runner	237	02/12/2018	NOTICE to counsel of filing of OFFICIAL TRANSCRIPT, Doc. 236. The parties have seven (7) calendar days to file with the court a Notice of Intent to Request Redaction of this transcript. If no such Notice is filed, the transcript may be made remotely electronically available to the public without redaction after 90 calendar days. Any party needing a copy of the transcript to review for redaction purposes may purchase a copy from the court reporter or view the document at the clerk's office public terminal. Court Reporter: Koretta Stanford. (KS) (Entered: 02/12/2018)	
☐	Online	238	02/12/2018	NOTIFICATION that transcript has been filed by Koretta Stanford re: 232 Notice of appeal. USCA number: 18-1309. (KS) (Entered: 02/12/2018)	
☐	Online	239	04/08/2019	OPINION of USCA as to 232 Notice of appeal filed by Calamp Corp. EOD: 04/08/19; Mandate to issue at a later date. USCA number: 18-1309. AFFIRMED-IN-PART, REVERSED-IN-PART,VACATED-IN-PART, and REMANDED. (JP) (Entered: 04/08/2019)	
☐	Online	240	04/08/2019	JUDGMENT from USCA for the Federal Circuit as to 232 Notice of appeal filed by Calamp Corp. USCA number: 18-1309. AFFIRMED-IN-PART, REVERSED-IN-PART, VACATED-IN-PART, and REMANDED. (JP) (Entered: 04/08/2019)	
☐	Runner	241	04/08/2019	NOTICE of hearing: Status Conference set for 4/19/2019 at 10:00 AM in Orlando Courtroom 4B before Judge Paul G. Byron. At least one attorney for each side is required to be present. Counsel shall be prepared to discuss scheduling with the Court. (GNB) copies e-mailed (Entered: 04/08/2019)	
☐	Online	242	04/12/2019	NOTICE of Additional Appearance by David Storrs Wood on behalf of Calamp Corp. (Wood, David) (Entered: 04/12/2019)	

	Availability	#	Date	Proceeding Text	Source
	Online	243	04/19/2019	NOTICE to the parties regarding exhibit disposal. The parties are notified that they have thirty (30) days in which to contact the Courtroom Deputy Clerk to arrange for the removal of the exhibits from the custody of the Clerk's Office, or the exhibits will be disposed of, or destroyed, pursuant to Local Rule 5.04. (GNB) copies e-mailed (GNB). (Entered: 04/19/2019)	
	Online	244	04/19/2019	Minute Entry. Proceedings held before Judge Paul G. Byron: STATUS CONFERENCE held on 4/19/2019. Court Reporter: Koretta Stanford (GNB) (Entered: 04/19/2019)	
	Online	245	04/23/2019	Unopposed MOTION for Leif E. Peterson II to appear pro hac vice by Calamp Corp.. (Attachments: # 1 Exhibit Special Admission Attorney Certification) (Wood, David) Motions referred to Magistrate Judge Daniel C. Irick. (Entered: 04/23/2019)	
	Online	246	04/23/2019	NOTICE of Plaintiff Exhibit Return re 243 Notice. Plaintiff's exhibits returned on 4/19/2019. (GNB) copies e-mailed (Entered: 04/23/2019)	
	Online	247	04/23/2019	NOTICE of Defendant Exhibit Return re 243 Notice. Defendant's exhibits returned on 4/19/2019. (GNB) copies e-mailed (Entered: 04/23/2019)	
	Runner	248	04/23/2019	CLERK'S certificate of destruction of COURT exhibits and/or exhibit substitutes. All Court exhibits have been made available electronically. (GNB) copies e-mailed (Entered: 04/23/2019)	
	Online	249	04/23/2019	ORDER granting 245 motion for Leif E. Peterson II, Esq.to appear pro hac vice. Counsel shall register for and use the electronic filing system as adopted by the Court. After this Order, the Clerk will no longer send copies of docket entries by U.S. Mail to counsel in this case. Signed by Magistrate Judge Daniel C. Irick on 4/23/2019. (DMA) (Entered: 04/23/2019)	

	Availability	#	Date	Proceeding Text	Source
☐	Runner		04/24/2019	***PRO HAC VICE FEES paid by attorney Leif E. Peterson, II, appearing on behalf of Calamp Corp. (Filing fee $150 receipt number ORL082229.) Related document: 245 Unopposed MOTION for Leif E. Peterson II to appear pro hac vice. (JP) (Entered: 04/24/2019)	
☐	Online	250	04/26/2019	NOTICE by Omega Patents, LLC re 244 Status Conference -- Notice Regarding Issues on Remand (Santurri, Ryan) (Entered: 04/26/2019)	
☐	Online	251	05/01/2019	MOTION for Reconsideration and/or Clarification as to Certain Oral Statements Made at Status Conference Conducted on April 19, 2019 by Calamp Corp.. (Wood, David) (Entered: 05/01/2019)	
☐	Free	252	05/01/2019	MOTION for clarification re 117 Order on Motion for Miscellaneous Relief by Calamp Corp.. (Wood, David) (Entered: 05/01/2019)	
☐	Online	253	05/02/2019	TRANSCRIPT of Status Conference held on 04/19/19 before Judge Paul G. Byron. Court Reporter/Transcriber Koretta Stanford, stanarm2014@gmail.com. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 5/23/2019; Redacted Transcript Deadline set for 6/3/2019; Release of Transcript Restriction set for 7/31/2019. (KS) (Entered: 05/02/2019)	

	Availability	#	Date	Proceeding Text	Source
☐	Runner	254	05/02/2019	NOTICE to counsel of filing of OFFICIAL TRANSCRIPT, Doc. 253. The parties have seven (7) calendar days to file with the court a Notice of Intent to Request Redaction of this transcript. If no such Notice is filed, the transcript may be made remotely electronically available to the public without redaction after 90 calendar days. Any party needing a copy of the transcript to review for redaction purposes may purchase a copy from the court reporter or view the document at the clerk's office public terminal. Court Reporter: Koretta Stanford. (KS) (Entered: 05/02/2019)	
☐	Online	255	05/03/2019	NOTICE by Omega Patents, LLC re 244 Status Conference - Notice of Filing Jury Instructions and Verdict Forms (Attachments: # 1 Exhibit A - Omega's Proposed Jury Instructions, # 2 Exhibit B - Calamp's Proposed Jury Instructions, # 3 Exhibit C - Omega's Proposed Verdict Form, # 4 Exhibit D - Calamp's Proposed Verdict Form)(Santurri, Ryan) (Entered: 05/03/2019)	
☐	Free	256	05/08/2019	NOTICE by Omega Patents, LLC of Filing Petition With the Federal Circuit (Attachments: # 1 Exhibit A - Combined Petition for Rehearing and Rehearing En Banc, # 2 Exhibit B - Federal Circuit Invitation on Response to Petition)(Santurri, Ryan) (Entered: 05/08/2019)	
☐	Runner	257	05/13/2019	ENDORSED ORDER re 256 Notice of Filing Petition With the Federal Circuit filed by Omega Patents, LLC. The Clerk of Court is DIRECTED to terminate all pending motions and close the file. Signed by Judge Paul G. Byron on 5/13/2019. (GNB) copies e-mailed (Entered: 05/13/2019)	
☐	Online	258	05/20/2019	MOTION for Joel A. Kauth to withdraw as attorney by Calamp Corp.. (Kauth, Joel) Motions referred to Magistrate Judge Daniel C. Irick. (Entered:	

	Availability	#	Date	Proceeding Text	Source
	Runner	259	05/21/2019	ENDORSED ORDER granting 258 Unopposed Motion to Withdraw. Attorney Joel A. Kauth terminated. Signed by Magistrate Judge Daniel C. Irick on 5/21/2019. (Irick, Daniel) (Entered: 05/21/2019)	
	Online	260	06/24/2019	NOTICE by Omega Patents, LLC of Filing Order From the Federal Circuit and Request for Scheduling Consideration (Gilchrist, Brian) (Entered: 06/24/2019)	
	Online	261	06/24/2019	NOTICE by Calamp Corp. of Order from The Federal Circuit and Request for Scheduling Considerations (Peterson, Leif) (Entered: 06/24/2019)	
	Online	262	06/24/2019	ORDER of USCA as to 232 Notice of appeal filed by Calamp Corp.. EOD: 06/24/19; USCA number: 18-1309. (JP) (Entered: 06/25/2019)	
	Runner	263	06/25/2019	ENDORSED ORDER re 262 Order of the United States Court of Appeals for the Federal Circuit denying Appellee's petitions for panel rehearing and rehearing en banc. This matter is due to be reopened. The Clerk is DIRECTED to reopen the file for further proceedings. Signed by Judge Paul G. Byron on 6/25/2019. (MMW) Modified on 6/25/2019 (RDO). (Entered: 06/25/2019)	
	Runner	264	06/25/2019	NOTICE of Hearing: Status Conference set for 7/16/2019 at 3:30 PM in Orlando Courtroom 4B before Judge Paul G. Byron. The Court has set aside one (1) hour for this hearing.(GNB) copies e-mailed (Entered: 06/25/2019)	
	Online	265	07/01/2019	MANDATE of USCA as to 232 Notice of appeal filed by Calamp Corp. Issued as Mandate: 07/01/19 USCA number: 18-1309. AFFIRMED-IN-PART, REVERSED-IN-PART,VACATED-IN-PART, and REMANDED. (JP) (Entered: 07/01/2019)	
	Online	266	07/01/2019	MOTION for clarification re 117 Order on Motion for Miscellaneous Relief by Calamp Corp.. (Peterson, Leif) (Entered: 07/01/2019)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	267	07/01/2019	MOTION for Reconsideration And/Or Clarification by Calamp Corp.. (Peterson, Leif) (Entered: 07/01/2019)	
☐	Online	268	07/01/2019	MOTION for leave to file Motions In Limine by Calamp Corp.. (Peterson, Leif) (Entered: 07/01/2019)	
☐	Online	269	07/08/2019	CERTIFICATE under Local Rule 3.01(g) re 268 MOTION for leave to file Motions In Limine by Calamp Corp.. (Peterson, Leif) Modified on 7/9/2019 (RDO). (Entered: 07/08/2019)	
☐	Online	270	07/10/2019	NOTICE of Filing Updated Jury Instructions by Calamp Corp. (Peterson, Leif) Modified on 7/11/2019 (RDO). (Entered: 07/10/2019)	
☐	Online	271	07/12/2019	RESPONSE to Motion re 266 MOTION for clarification re 117 Order on Motion for Miscellaneous Relief filed by Omega Patents, LLC. (Gilchrist, Brian) (Entered: 07/12/2019)	
☐	Online	272	07/12/2019	RESPONSE to Motion re 267 MOTION for Reconsideration And/Or Clarification filed by Omega Patents, LLC. (Gilchrist, Brian) (Entered: 07/12/2019)	
☐	Online	273	07/12/2019	RESPONSE to Motion re 268 MOTION for leave to file Motions In Limine filed by Omega Patents, LLC. (Gilchrist, Brian) (Entered: 07/12/2019)	
☐	Online	274	07/16/2019	Minute Entry. Proceedings held before Judge Paul G. Byron: STATUS CONFERENCE held on 7/16/2019. Court Reporter: Koretta Stanford (GNB) (Entered: 07/17/2019)	
☐	Runner	275	07/16/2019	ORAL ORDER denying 266 Motion for clarification; denying 267 Motion for Reconsideration; denying 268 Motion for Leave to File for the reasons stated on the record. Rendered in Open Court by Judge Paul G. Byron on 7/16/2019. (GNB) (Entered: 07/17/2019)	

	Availability	#	Date	Proceeding Text	Source
☐	Runner	276	07/16/2019	NOTICE of Hearing: Jury Trial set for 9/23/2019 at 9:00 AM in Orlando Courtroom 4B before Judge Paul G. Byron. The Court has set aside four (4) days for this trial. (GNB) copies e-mailed (Entered: 07/17/2019)	
☐	Online	277	07/24/2019	TRANSCRIPT of Status Conference held on 07/16/19 before Judge Paul G. Byron. Court Reporter/Transcriber Koretta Stanford, stanarm2014@gmail.com. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 8/14/2019; Redacted Transcript Deadline set for 8/26/2019; Release of Transcript Restriction set for 10/22/2019. (KS) (Entered: 07/24/2019)	
☐	Runner	278	07/24/2019	NOTICE to counsel of filing of OFFICIAL TRANSCRIPT, Doc. 277. The parties have seven (7) calendar days to file with the court a Notice of Intent to Request Redaction of this transcript. If no such Notice is filed, the transcript may be made remotely electronically available to the public without redaction after 90 calendar days. Any party needing a copy of the transcript to review for redaction purposes may purchase a copy from the court reporter or view the document at the clerk's office public terminal. Court Reporter: Koretta Stanford. (KS) (Entered: 07/24/2019)	
☐	Online	279	07/31/2019	NOTICE by Omega Patents, LLC re 274 Status Conference - Notice Regarding Claim Construction (Santurri, Ryan) (Entered: 07/31/2019)	
☐	Online	280	07/31/2019	NOTICE by Omega Patents, LLC Regarding Proposed Joint Stipulations (Attachments: # 1 Exhibit A - Plaintiff's Proposal, # 2 Exhibit B - Defendant's	

	Availability	#	Date	Processing Text	Source
				Ryan) (Entered: 07/31/2019)	
	Online	281	08/12/2019	NOTICE by Omega Patents, LLC re 274 Status Conference Regarding Proposed Jury Instructions and Verdict Form (Attachments: # 1 Exhibit A - Proposed Jury Instructions w/Parties' Positions, # 2 Exhibit B - Omega's Proposed Verdict Form, # 3 Exhibit C - Calamp's Proposed Verdict Form, # 4 Exhibit D - Revised Interim Instruction on Willfulness with Parties' Positions)(Santurri, Ryan) (Entered: 08/12/2019)	
	Online	282	08/14/2019	ORDER directing supplemental briefing as to Defendant CalAmp Corp. See Order for details. Signed by Judge Paul G. Byron on 8/14/2019. (SCM) (Entered: 08/14/2019)	
	Runner	283	08/23/2019	NOTICE of Hearing: Charge Conference set for 9/19/2019 at 10:00 AM in Orlando Courtroom 4B before Judge Paul G. Byron, U.S. District Court, 401 West Central Blvd, Orlando, Florida. The Court has set aside three (3) hours for this hearing.(GNB) copies e-mailed (Entered: 08/23/2019)	
	Online	284	08/23/2019	CIVIL PRETRIAL ORDER. Signed by Judge Paul G. Byron on 8/23/2019. (SCM) (Entered: 08/23/2019)	
	Online	285	08/28/2019	STATUS report/Statement regarding Chen and Bailey Anticipated Testimony re 282 Order by Calamp Corp.. (Peterson, Leif) Modified on 8/29/2019 (RDO). (Entered: 08/28/2019)	
	Online	286	09/16/2019	Witness List by Calamp Corp.. (Peterson, Leif) (Entered: 09/16/2019)	
	Online	287	09/16/2019	Exhibit List by Calamp Corp.. (Peterson, Leif) (Entered: 09/16/2019)	
	Online	288	09/16/2019	Exhibit List by Omega Patents, LLC. (Santurri, Ryan) (Entered: 09/16/2019)	
	Online	289	09/16/2019	Witness List by Omega Patents, LLC. (Santurri, Ryan) (Entered: 09/16/2019)	
	Free	290	09/18/2019	Proposed Voir Dire by Calamp Corp.. (Peterson, Leif)	

	Availability	#	Date	Proceeding Text	Source
				(Entered: 09/18/2019)	
☐	Online	291	09/19/2019	Exhibit List (Joint) by Omega Patents, LLC. (Santurri, Ryan) (Entered: 09/19/2019)	
☐	Online	292	09/19/2019	Exhibit List (Plaintiff's) by Omega Patents, LLC. (Santurri, Ryan) (Entered: 09/19/2019)	
☐	Online	293	09/19/2019	Minute Entry. Proceedings held before Judge Paul G. Byron: Charge Conference held on 9/19/2019. Court Reporter: Koretta Stanford (GNB) copies e-mailed (Entered: 09/19/2019)	
☐	Online	294	09/19/2019	NOTICE by Calamp Corp. of Supplemental Authority Regarding Jury Instruction on Willfulness (Mulder, Bryan) (Entered: 09/19/2019)	
☐	Online	295	09/20/2019	NOTICE by Calamp Corp. of Proposed Stipulation (Attachments: # 1 Exhibit A, Proposed Stipulation) (Mulder, Bryan) (Entered: 09/20/2019)	
☐	Online	296	09/23/2019	Minute Entry. Proceedings held before Judge Paul G. Byron: JURY TRIAL (Day 1) held on 9/23/2019. Court Reporter: Koretta Stanford (GNB) copies e-mailed (Entered: 09/24/2019)	
☐	Online	297	09/24/2019	NOTICE of Filing Deposition Designations by Omega Patents, LLC (Attachments: # 1 Exhibit Gailin Chen 4/21/2015 Depo Designations, # 2 Exhibit Jeffrey L. Eigberger 3/12/2015 Depo Designations, # 3 Exhibit Pete Hergesheimer 8/18/2014 Depo Designations, # 4 Exhibit Peter Hergesheimer 4/22/2015 Depo Designations, # 5 Exhibit Stephen Hall 3/11/2015 Depo Designations)(Santurri, Ryan) Modified on 9/25/2019 (RDO). (Entered: 09/24/2019)	
☐	Online	298	09/24/2019	NOTICE of Filing Corrected Deposition Designation by Omega Patents, LLC . (Attachments: # 1 Exhibit - Corrected Pete Hergesheimer 8/18/2014 Depo Designation)(Santurri, Ryan) Modified on 9/25/2019 (RDO). (Entered: 09/24/2019)	
☐	Online	299	09/24/2019	Minute Entry. Proceedings held before Judge Paul G. Byron: JURY TRIAL (Day 2) held on 9/24/2019. Court Reporter: Koretta Stanford (GNB) copies e-	

	Availability	#	Date	Court Reporter: Koretta Stanford (GNB) copies e-mailed (Entered: 09/24/2019)	Source
				Proceeding Text	
☐	Online	300	09/25/2019	Minute Entry. Proceedings held before Judge Paul G. Byron: JURY TRIAL (Day 3) held on 9/25/2019. Court Reporter: Koretta Stanford (GNB) (Entered: 09/26/2019)	
☐	Online	301	09/26/2019	Supplement to 303 ORAL MOTION for Judgment as a Matter of Law by Calamp Corp. (Peterson, Leif) Modified on 9/27/2019 (GNB). (Entered: 09/26/2019)	
☐	Online	302	09/26/2019	Minute Entry. Proceedings held before Judge Paul G. Byron: JURY TRIAL (Day 4) held on 9/26/2019. Court Reporter: Koretta Stanford (GNB) (Entered: 09/27/2019)	
☐	Runner	303	09/26/2019	ORAL MOTION for Judgment as a Matter of law by Calamp Corp for the reasons stated on the record. (GNB) (Entered: 09/27/2019)	
☐	Runner	304	09/26/2019	ORAL ORDER denying 303 Motion for Judgment as a Matter of Law for the reasons stated on the record. Rendered in Open Court by Judge Paul G. Byron on 9/26/2019. (GNB) (Entered: 09/27/2019)	
☐	Online	305	09/27/2019	Minute Entry. Proceedings held before Judge Paul G. Byron: JURY TRIAL (Day 5) held on 9/27/2019. Court Reporter: Koretta Stanford (GNB) (Entered: 09/27/2019)	
☐	Runner	306	09/27/2019	RENEWED ORAL MOTION for Judgment as a Matter of Law for the reasons stated on the record by Calamp Corp. (GNB) (Entered: 09/27/2019)	
☐	Runner	307	09/27/2019	ORAL ORDER denying 306 Motion for Judgment as a Matter of Law for the reasons stated on the record. Rendered in Open Court by Judge Paul G. Byron on 9/27/2019. (GNB) (Entered: 09/27/2019)	
☐	Online	308	09/30/2019	Minute Entry. Proceedings held before Judge Paul G. Byron: JURY TRIAL (Day 6) completed on 9/30/2019. Court Reporter: Koretta Stanford (GNB) (Entered: 10/01/2019)	
☐					

	Online Availability	309 #	09/30/2019 Date	Jury Instructions. (GNB) (Entered: 10/01/2019) Proceeding Text	Source
☐	Online	310	09/30/2019	JURY VERDICT. (GNB) (Entered: 10/01/2019)	
☐	Online	311	09/30/2019	Joint Exhibit List (Trial) by Omega Patents, LLC and Calamp Corp. (GNB) (Additional attachment(s) added on 10/1/2019: # 1 Exhibit 1, # 2 Exhibit 3, # 3 Exhibit 4, # 4 Exhibit 5, # 5 Exhibit 6 Part 1, # 6 Exhibit 6 Part 2, # 7 Exhibit 6 Part 3, # 8 Exhibit 6 Part 4, # 9 Exhibit 6 Part 5, # 10 Exhibit 6 Part 6, # 11 Exhibit 8, # 12 Exhibit 9, # 13 Exhibit 10, # 14 Exhibit 11, # 15 Exhibit 12, # 16 Exhibit 13, # 17 Exhibit 14) (GNB). (Entered: 10/01/2019)	
☐	Online	312	09/30/2019	Plaintiff's Exhibit List (Trial) by Omega Patents, LLC. (GNB) (Additional attachment(s) added on 10/1/2019: # 1 Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3, # 4 Exhibit 4, # 5 Exhibit 5, # 6 Exhibit 6 Part 1, # 7 Exhibit 6 Part 2, # 8 Exhibit 8, # 9 Exhibit 9, # 10 Exhibit 10, # 11 Exhibit 11, # 12 Exhibit 12 Part 1, # 13 Exhibit 12 Part 2, # 14 Exhibit 14, # 15 Exhibit 15, # 16 Exhibit 16, # 17 Exhibit 18, # 18 Exhibit 19, # 19 Exhibit 20, # 20 Exhibit 21, # 21 Exhibit 22, # 22 Exhibit 23, # 23 Exhibit 38, # 24 Exhibit 39, # 25 Exhibit 40, # 29 Exhibit 45, # 31 Exhibit 47, # 32 Exhibit 48, # 33 Exhibit 49, # 34 Exhibit 59, # 35 Exhibit 60 Part 1, # 36 Exhibit 60 Part 2, # 37 Exhibit 60 Part 3, # 38 Exhibit 60 Part 4, # 39 Exhibit 60 Part 5, # 40 Exhibit 60 Part 6, # 41 Exhibit 64, # 42 Exhibit 67, # 43 Exhibit 68, # 44 Exhibit 69, # 45 Exhibit 71, # 46 Exhibit 81, # 47 Exhibit 82, # 48 Exhibit 83, # 49 Exhibit 84, # 50 Exhibit 85, # 51 Exhibit 86, # 52 Exhibit 92, # 53 Exhibit 93, # 54 Exhibit 96, # 55 Exhibit 97, # 56 Exhibit 99, # 57 Exhibit 100, # 58 Exhibit 102, # 59 Exhibit 103, # 60 Exhibit 104A, # 61 Exhibit 156, # 62 Exhibit 157, # 63 Exhibit 162) (GNB). (Entered: 10/01/2019)	

	Availability	#	Date	Proceeding Text	Source
☐	Online	313	09/30/2019	Defendant's Exhibit List (Trial) by Calamp Corp. (GNB) (Additional attachment(s) added on 10/1/2019: # 1 Exhibit 12, # 2 Exhibit 17, # 3 Exhibit 18, # 4 Exhibit 22, # 5 Exhibit 54, # 6 Exhibit 54A) (GNB). (Entered: 10/01/2019)	
☐	Online	314	09/30/2019	Court's Exhibit List (Trial). (GNB) (Additional attachment(s) added on 10/1/2019: # 1 Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3, # 4 Exhibit 4, # 5 Exhibit 5, # 6 Exhibit 6) (GNB). (Entered: 10/01/2019)	
☐	Online	315	09/30/2019	EXHIBIT CERTIFICATION by Omega Patents, LLC and Calamp Corp. (GNB) (Entered: 10/01/2019)	
☐	Online	316	10/29/2019	MOTION for Entry of Final judgment by Omega Patents, LLC. (Attachments: # 1 Exhibit A - Declaration)(Gilchrist, Brian) (Entered: 10/29/2019)	
☐	Online	317	10/29/2019	PROPOSED BILL OF COSTS by Omega Patents, LLC. (Attachments: # 1 Appendix, # 2 Exhibit 1, # 3 Exhibit 2, # 4 Exhibit 3, # 5 Exhibit 4, # 6 Exhibit 5)(Gilchrist, Brian) (Entered: 10/29/2019)	
☐	Online	318	11/08/2019	RESPONSE re 317 Bill of costs - proposed filed by Calamp Corp.. (Peterson, Leif) (Entered: 11/08/2019)	
☐	Online	319	11/12/2019	RESPONSE in Opposition re 316 MOTION for Entry of Final judgment filed by Calamp Corp.. (Peterson, Leif) (Entered: 11/12/2019)	
☐	Online	320	11/22/2019	RESPONSE re 318 Response (Response in Opposition to Defendant's Objections to Bill of Costs) filed by Omega Patents, LLC. (Santurri, Ryan) (Entered: 11/22/2019)	Events since last full update
☐	Online	321	11/25/2019	ORDER granting 316 Motion for Entry of Final Judgment. See Order for details. Signed by Judge Paul G. Byron on 11/25/2019. (SCM) (Entered: 11/25/2019)	Events since last full update
☐	Online	322	11/26/2019	JUDGMENT in favor of Omega Patents, LLC against	Events since last full

	Availability	#	Date	Calamp Corp..(see Judgment for details). (Signed **Proceeding Text** by Deputy Clerk) (RDO) (Entered: 11/26/2019)	update **Source**
☐	Online	323	11/27/2019	Patent Report sent to Alexandria, VA. (Attachments: # 1 Complaint, # 2 Judgment) (RDO) (Entered: 11/27/2019)	Events since last full update
☐	Online	324	12/09/2019	Unopposed MOTION for miscellaneous relief, specifically for leave to cite uncertified transcripts in post-trial motions by Calamp Corp.. (Peterson, Leif) (Entered: 12/09/2019)	Events since last full update
☐	Runner	325	12/09/2019	ENDORSED ORDER granting 324 Motion for miscellaneous relief, specifically for leave to cite uncertified transcripts in post-trial motions. Signed by Judge Paul G. Byron on 12/9/2019. (SCM) (Entered: 12/09/2019)	Events since last full update
☐	Online	326	12/18/2019	Unopposed MOTION to **stay** Execution Of Judgment Pending Post-Trial Motions And Appeal And For Approval Of Supersedeas Bond by Calamp Corp.. (Attachments: # 1 Exhibit A, # 2 Exhibit B) (Peterson, Leif) (Entered: 12/18/2019)	Events since last full update
☐	Runner	327	12/19/2019	ENDORSED ORDER re 326. Defendant shall email the Court a proposed order in Word format to CHAMBERS_FLMD_BYRON@flmd.uscourts.gov. Signed by Judge Paul G. Byron on 12/19/2019. (SCM) (Entered: 12/19/2019)	Events since last full update
☐	Online	328	12/20/2019	ORDER granting 326 Motion to **Stay** Execution Of Judgment Pending Post-Trial Motions And Appeal And For Approval Of Supersedeas Bond. Signed by Judge Paul G. Byron on 12/20/2019. (SCM) (Entered: 12/20/2019)	Events since last full update
☐	Online	329	12/23/2019	Joint MOTION for Extension of Time to File Opposition Briefs by Calamp Corp.. (Peterson, Leif) (Entered: 12/23/2019)	Events since last full update
☐	Online	330	12/23/2019	MOTION for judgment as a matter of law , MOTION for New Trial , MOTION for miscellaneous relief, specifically for a remittitur of damages by Calamp Corp.. (Peterson, Leif) (Entered: 12/23/2019)	Events since last full update

	Availability	#	Date	Proceeding Text	Source
☐	Online	331	12/23/2019	MOTION for New Trial on Willfulness Under Rule 59 by Omega Patents, LLC. (Gilchrist, Brian) (Entered: 12/23/2019)	Events since last full update
☐	Online	332	12/23/2019	MOTION for Judgment of Infringement of VPOD Units Under Rule 59 judgment by Omega Patents, LLC. (Gilchrist, Brian) (Entered: 12/23/2019)	Events since last full update
☐	Online	333	12/23/2019	MOTION for Attorney Fees Award by Omega Patents, LLC. (Gilchrist, Brian) Motions referred to Magistrate Judge Daniel C. Irick. (Entered: 12/23/2019)	Events since last full update
☐	Online	334	12/23/2019	MOTION for miscellaneous relief, specifically Impose An Ongoing Royalty by Omega Patents, LLC. (Gilchrist, Brian) (Entered: 12/23/2019)	Events since last full update
☐	Online	335	12/23/2019	MOTION for miscellaneous relief, specifically Leave to Conduct Post-Trial Discovery by Omega Patents, LLC. (Attachments: # 1 Exhibit A - Brochure, # 2 Exhibit B - Email, # 3 Exhibit C - Email, # 4 Exhibit D - Website Printout, # 5 Exhibit E - Email, # 6 Exhibit F - Email)(Gilchrist, Brian) (Entered: 12/23/2019)	Events since last full update
☐	Punner	336	12/25/2019	ENDORSED ORDER granting 329 Motion for Extension of Time to File. Signed by Judge Paul G. Byron on 12/25/2019. (SCM) (Entered: 12/25/2019)	Events since last full update
☐	Online	337	01/07/2020	TRANSCRIPT of Civil Jury Trial - Day 1 held on 09/23/19 before Judge Paul G. Byron. Court Reporter/Transcriber Koretta Stanford, stanarm2014@gmail.com. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 1/28/2020; Redacted Transcript Deadline set for 2/7/2020; Release of Transcript Restriction set for 4/6/2020. (KS) (Entered: 01/07/2020)	Events since last full update

	Availability	#	Date	Proceeding Text	Source
☐	Online	338	01/07/2020	TRANSCRIPT of Civil Jury Trial - Day 2 held on 09/24/19 before Judge Paul G. Byron. Court Reporter/Transcriber Koretta Stanford, stanarm2014@gmail.com. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 1/28/2020; Redacted Transcript Deadline set for 2/7/2020; Release of Transcript Restriction set for 4/6/2020. (KS) (Entered: 01/07/2020)	Events since last full update
☐	Online	339	01/07/2020	TRANSCRIPT of Civil Jury Trial - Day 3 held on 09/25/19 before Judge Paul G. Byron. Court Reporter/Transcriber Koretta Stanford, stanarm2014@gmail.com. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 1/28/2020; Redacted Transcript Deadline set for 2/7/2020; Release of Transcript Restriction set for 4/6/2020. (KS) (Entered: 01/07/2020)	Events since last full update
☐	Online	340	01/07/2020	TRANSCRIPT of Civil Jury Trial - Day 4 held on 09/26/19 before Judge Paul G. Byron. Court Reporter/Transcriber Koretta Stanford, stanarm2014@gmail.com. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 1/28/2020; Redacted Transcript Deadline set for 2/7/2020; Release of Transcript Restriction set for	Events since last full update

	Availability	#	Date	Proceeding Text	Source
				4/6/2020. (KS) (Entered: 01/07/2020)	
☐	Online	341	01/07/2020	TRANSCRIPT of Civil Jury Trial - Day 5 held on 09/27/19 before Judge Paul G. Byron. Court Reporter/Transcriber Koretta Stanford, stanarm2014@gmail.com. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 1/28/2020; Redacted Transcript Deadline set for 2/7/2020; Release of Transcript Restriction set for 4/6/2020. (KS) (Entered: 01/07/2020)	Events since last full update
☐	Online	342	01/07/2020	TRANSCRIPT of Civil Jury Trial - Day 6 held on 09/30/19 before Judge Paul G. Byron. Court Reporter/Transcriber Koretta Stanford, stanarm2014@gmail.com. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 1/28/2020; Redacted Transcript Deadline set for 2/7/2020; Release of Transcript Restriction set for 4/6/2020. (KS) (Entered: 01/07/2020)	Events since last full update
☐	Runner	343	01/07/2020	NOTICE to counsel of filing of OFFICIAL TRANSCRIPTS: Doc. 337, 338, 339, 340, 341, and 342. The parties have seven (7) calendar days to file with the court a Notice of Intent to Request Redaction of this transcript. If no such Notice is filed, the transcript may be made remotely electronically available to the public without redaction after 90 calendar days. Any party needing a copy of the transcript to review for redaction purposes may purchase a copy from the court reporter or view the document at the Clerk's Office	Events since last full update

	Availability	#	Date	Proceeding Text	Source
				public terminal. Court Reporter: Koretta Stanford. (KS) (Entered: 01/07/2020)	
	Online	344	01/06/2019	Supersedeas BOND in the amount of $ $6,757,830.50 posted by Calamp Corp. (RDO) (Entered: 01/06/2019)	Events since last full update
	Online	345	01/13/2020	ORDER denying without prejudice 333 Motion for an Award of Attorney Fees. Plaintiff may refile its motion for attorney fees within thirty days of the disposition of the pending post-trial motions and any subsequent appeal; the time for the response shall run from the date of the disposition of any subsequent appeal or the expiration of the time to file a notice of appeal if none is filed. Signed by Magistrate Judge Daniel C. Irick on 1/13/2020. (SPM) (Entered: 01/13/2020)	Events since last full update
	Online	346	01/20/2020	RESPONSE in Opposition re 330 MOTION for judgment as a matter of law MOTION for New Trial MOTION for miscellaneous relief, specifically for a remittitur of damages filed by Omega Patents, LLC. (Gilchrist, Brian) (Entered: 01/20/2020)	Events since last full update
	Online	347	01/21/2020	RESPONSE in Opposition re 331 MOTION for New Trial on Willfulness Under Rule 59 filed by Calamp Corp.. (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Exhibit C, # 4 Exhibit D)(Peterson, Leif) (Entered: 01/21/2020)	Events since last full update
	Online	348	01/21/2020	RESPONSE in Opposition re 334 MOTION for miscellaneous relief, specifically Impose An Ongoing Royalty filed by Calamp Corp.. (Peterson, Leif) (Entered: 01/21/2020)	Events since last full update
	Online	349	01/21/2020	RESPONSE in Opposition re 332 MOTION for Judgment of Infringement of VPOD Units Under Rule 59 judgment filed by Calamp Corp.. (Peterson, Leif) (Entered: 01/21/2020)	Events since last full update
	Online	350	01/21/2020	RESPONSE in Opposition re 335 MOTION for miscellaneous relief, specifically Leave to Conduct Post-Trial Discovery filed by Calamp Corp.. (Attachments: # 1 Exhibit 1, # 2 Exhibit 2, # 3	Events since last full update

	Availability	#	Date	Proceeding Text	Source
				Exhibit 3, # 4 Exhibit 4, # 5 Exhibit 5, # 6 Exhibit 6)(Peterson, Leif) (Entered: 01/21/2020)	
☐	Online	351	03/20/2020	ORDER denying 330 Motion for Judgment as a Matter of Law; denying 330 Motion for New Trial; denying 330 Motion for Remittitur of Damages. Signed by Judge Paul G. Byron on 3/20/2020. (SCM) (Entered: 03/20/2020)	Events since last full update
☐	Online	352	03/20/2020	ORDER denying 331 Motion for New Trial on Willfulness. Signed by Judge Paul G. Byron on 3/20/2020. (SCM) (Entered: 03/20/2020)	Events since last full update
☐	Online	353	04/01/2020	ORDER granting in part 334 Motion to Impose an Ongoing Royalty. Signed by Judge Paul G. Byron on 4/1/2020. (SCM) (Entered: 04/01/2020)	Events since last full update
☐	Online	354	04/01/2020	ORDER denying 335 Motion for Leave to Conduct Post-Trial Discovery. Signed by Judge Paul G. Byron on 4/1/2020. (SCM) (Entered: 04/01/2020)	Events since last full update
☐	Online	355	04/03/2020	ORDER denying 332 Motion for Judgment of Infringement of VPOD Units Under Rule 59. Signed by Judge Paul G. Byron on 4/3/2020. (SCM) (Entered: 04/03/2020)	Events since last full update
☐	Online	356	04/30/2020	NOTICE OF APPEAL as to 304 Order on Motion for Judgment as a Matter of Law, 322 Judgment, 321 Order on Motion for Judgment, 351 Order on Motion for Judgment as a Matter of LawOrder on Motion for New TrialOrder on Motion for Miscellaneous Relief, 353 Order on Motion for Miscellaneous Relief, 275 Order on Motion for ClarificationOrder on Motion for Reconsideration / ClarificationOrder on Motion for Leave to File Document by Calamp Corp.. Filing fee $ 505, receipt number 113A-16760207. (Peterson, Leif) (Entered: 04/30/2020)	Events since last full update
☐	Online	357	04/30/2020	NOTICE OF CROSS APPEAL as to 352 Order on Motion for New Trial, 353 Order on Motion for Miscellaneous Relief, 355 Order on Motion for Judgment by Omega Patents, LLC. (Attachments: # 1 Exhibit Dkt. 352, # 2 Exhibit Dkt #353, # 3 Exhibit Dkt #355)(Gilchrist, Brian) (Entered:	Events since last full update

	Availability	#	Date	Proceeding Text 04/30/2020)	Source
☐	Runner	--	05/04/2020	Notice of Appeal packages submitted to the U.S. Court of Appeals for the Federal Circuit via emails re 356 Notice of Appeal and 357 Notice of Cross Appeal. (ALL) (Entered: 05/04/2020)	Events since last full update
☐	Runner	--	05/12/2020	USCA appeal fees received $ 505 receipt number ORL090685 re 357 Notice of cross appeal filed by Omega Patents, LLC (KNC) (Entered: 05/12/2020)	Events since last full update
☐	Online	358	05/14/2020	TRANSCRIPT information form filed by Calamp Corp. for proceedings held on September 19, 2019 before Judge Paul G. Byron re 356 Notice of Appeal. (Peterson, Leif) (Entered: 05/14/2020)	Events since last full update
☐	Online	359	05/27/2020	COURT REPORTER ACKNOWLEDGMENT by Koretta Stanford re 356 Notice of Appeal Estimated transcript filing date: 06/27/20. (KES) (Entered: 05/27/2020)	Events since last full update
☐	Online	360	06/26/2020	TRANSCRIPT of Charge Conference held on 09/19/19 before Judge Paul G. Byron re 356 Notice of Appeal. Court Reporter/Transcriber Koretta Stanford, stanarm2014@gmail.com. Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date, it may be obtained through PACER or purchased through the Court Reporter. Redaction Request due 7/17/2020; Redacted Transcript Deadline set for 7/27/2020; Release of Transcript Restriction set for 9/24/2020. (KS) (Entered: 06/26/2020)	Events since last full update

	Availability	#	Date	Proceeding Text	Source
☐	Runner	361	06/26/2020	NOTICE to Counsel of filing of OFFICIAL TRANSCRIPT, Doc. 360. The parties have seven (7) calendar days to file with the court a Notice of Intent to Request Redaction of this transcript. If no such Notice is filed, the transcript may be made remotely electronically available to the public without redaction after 90 calendar days. Any party needing a copy of the transcript to review for redaction purposes may purchase a copy from the court reporter or view the document at the clerk's office public terminal. Court Reporter: Koretta Stanford. (KS) (Entered: 06/26/2020)	Events since last full update
☐	Online	362	06/26/2020	NOTIFICATION that transcript has been filed by Koretta Stanford re: 356 Notice of Appeal (KS) (Entered: 06/26/2020)	Events since last full update
☐	Online	363	12/22/2020	Unopposed MOTION for Bryan C. Mulder, Esq., of the law firm Sidley Austin LLP to Withdraw as Attorney For Defendant, Calamp Corp. by Calamp Corp.. (Wozniak, Carrie) Motions referred to Magistrate Judge Daniel C. Irick. (Entered: 12/22/2020)	Events since last full update
☐	Runner	364	12/23/2020	ENDORSED ORDER granting 363 Motion to Withdraw. Attorney Bryan C. Mulder is terminated as counsel in this case. Signed by Magistrate Judge Daniel C. Irick on 12/23/2020. (Irick, Daniel) (Entered: 12/23/2020)	Events since last full update

Retrieve Document(s)

Patents

Number	Title	Issued	Class	Subclass
6,346,876	Multi-vehicle compatible control system generating command signals on a data bus and associated methods	02/12/2002	340	426.13
6,737,989	Vehicle tracker including variable frequency transmission and related methods	05/18/2004	Er	undefined

Number	Title	Issued	Class	Subclass
6,756,885	Multi-vehicle compatible control system for reading from a data bus and associated methods	06/29/2004	340	426.1
7,671,727	Speed exceeded notification device for vehicle having a data bus and associated methods	03/02/2010	340	466
8,032,278	Vehicle tracking unit with downloadable codes and associated methods	10/04/2011	701	36

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Content Type: Dockets

Terms: Stay and patent-number(8032278)

Narrow By: Case Status: Open or Unknown or Closed Court: U.S. Circuit Court of Appeals (United States) or United States U.S. District Courts (Civil) or U.S. Supreme Court or U.S. Patent Trial and Appeals Board Except: Civil

Date and Time: Feb 18, 2021 10:48:32 p.m. EST

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CERTIFICATE OF SERVICE

Certificate of Service in compliance with 37 C.F.R. § 1.510(b)(5)

Pursuant to 37 C.F.R. § 1.510(b)(5) and 37 C.F.R. § 1.33(c), I hereby certify that on February 16, 2021, a complete copy of this *ex parte* reexamination request, including the accompanying transmittal, FORM PTO/SB/42, and all attachments and exhibits, are being served via First Class U.S. Mail upon Patent Owner at the correspondence address as shown in PAIR:

ADD&G-27975

1135 E. State Road 434

Suite 3001

Winter Springs, FL 32708

In accordance with 37 C.F.R. § 1.510(b)(5), on February 16, 2021.

Respectfully Submitted,



Mark B. Garred
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Aliso Viejo, California 92656
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Fax: (949) 855-6371

Electronic Acknowledgement Receipt

EFS ID:	41937745
Application Number:	90014675
International Application Number:	
Confirmation Number:	7247
Title of Invention:	VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS
First Named Inventor/Applicant Name:	Kenneth E. Flick
Correspondence Address:	- - - - - - - - - -
Filer:	Mark B. Garred/Andrea Levine
Filer Authorized By:	Mark B. Garred
Attorney Docket Number:	CAAMP-001X
Receipt Date:	16-FEB-2021
Filing Date:	
Time Stamp:	18:34:10
Application Type:	Reexam (Third Party)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Reexam Certificate of Service	Certificate_of_Service_16Feb2021.pdf	34791 662e281138c92dfd48ef86f5e3a9310f66ab58ff	no	1

Warnings:	
Information:	
Total Files Size (in bytes):	34791

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	Kenneth E. Flick	Confirmation No.	TBD
Serial No.:	11/773,272	Art Unit:	TBD
Filed:	July 3, 2007	Examiner:	TBD
For:	VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS		

DECLARATION OF MARK GARRED

Mail Stop *Ex Parte* Reexam
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

I, Mark Garred, declare as follows:

1. I am a patent attorney representing Innova Electronics, the requester in the concurrently filed request for *ex parte* reexamination. I am admitted to practice before the USPTO and in the states of Ohio, California and Arizona.

2. Exhibit A, referred to in the request and submitted herewith, is a true and correct copy of U.S. Patent No. 8,032,278 ("the '278 patent"), which is the subject of the request.

3. Exhibit B1, referred to in the request and submitted herewith, is a true and correct copy of U.S. Patent No. 6,611,740 to Lowrey et al. ("the Lowrey reference").

4. Exhibit B2, referred to in the request and submitted herewith, is a true and correct copy of U.S. Patent No. 6,636,790 to Lightner et al. ("the Lightner reference").

5. Exhibits C-F, referred to in the request and submitted herewith, are documents from the file histories of several prior *ex parte* reexamination proceedings concerning the '278 patent.

6. Exhibit C is a true and correct copy of a Non-Final Rejection issued by the United States Patent and Trademark Office on May 6, 2016 in Reexamination Control No. 90/013,587.

7. Exhibit D is a true and correct copy of a Determination issued by the United States Patent and Trademark Office on December 15, 2016 in Reexamination Control No. 90/013,851.

8. Exhibit E is a true and correct copy of a Determination issued by the United States Patent and Trademark Office on July 10, 2019 in Reexamination Control No. 90/014,309.

9. Exhibit F is a true and correct copy of a Decision on Appeal issued by the United States Patent and Trademark Office on November 13, 2018 in Reexamination Control No. 90/013,851.

10. Exhibit G, referred to in the request and submitted herewith, is a true and correct copy of a claim construction order issued by the United States District Court for the Middle District of Florida, Orlando Division, filed February 20, 2015 in *Omega Patents, LLC, v. Calamp Corp.*, Case No. 6:13-cv-1950-Orl-40DAB, which is referred to in the Decision on Appeal issued by the United States Patent and Trademark Office on November 13, 2018 in Reexamination Control No. 90/013,851 (Exhibit F).

11. Exhibit H, referred to in the request and submitted herewith, is a true and correct copy of a Non-Final Rejection issued by the United States Patent and Trademark Office on January 4, 2011 in Application Serial No. 11/773,272, the application from which the '278 patent issued.

I declare under penalty of perjury that the foregoing is true and correct. Executed on February 10, 2021.



Mark B. Garred
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US008032278B2

(12) **United States Patent**
Flick

(10) **Patent No.: US 8,032,278 B2**
(45) **Date of Patent: Oct. 4, 2011**

(54) **VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS**

(75) Inventor: **Kenneth E. Flick**, Douglasville, GA (US)

(73) Assignee: **Omega Patents, L.L.C.**, Douglasville, GA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 840 days.

(21) Appl. No.: **11/773,272**

(22) Filed: **Jul. 3, 2007**

(65) **Prior Publication Data**

US 2007/0279283 A1 Dec. 6, 2007

Related U.S. Application Data

(63) Continuation-in-part of application No. 11/076,259, filed on Mar. 9, 2005, now Pat. No. 7,720,597, which is a continuation of application No. 10/383,496, filed on Mar. 7, 2003, now Pat. No. 7,149,623, which is a continuation of application No. 09/859,972, filed on May 17, 2001, now Pat. No. 6,606,561.

(60) Provisional application No. 60/264,811, filed on Jan. 29, 2001, provisional application No. 60/258,005, filed on Dec. 22, 2000, provisional application No. 60/251,552, filed on Dec. 6, 2000, provisional application No. 60/252,125, filed on Nov. 20, 2000, provisional application No. 60/236,890, filed on Sep. 29, 2000, provisional application No. 60/246,463, filed on Nov. 7, 2000, provisional application No. 60/222,777, filed on Aug. 3, 2000, provisional application No. 60/205,178, filed on May 17, 2000.

(51) **Int. Cl.**
G01C 21/00 (2006.01)

(52) **U.S. Cl.** **701/36**; 701/33; 382/104; 382/988; 455/575.9

(58) **Field of Classification Search** 701/36, 701/207–209; 340/500, 506, 515, 531, 533–534
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,223,844 A 6/1993 Mansell et al. 342/357
(Continued)

FOREIGN PATENT DOCUMENTS

DE 19607017 A1 * 8/1997
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OTHER PUBLICATIONS

Intelligent Object-Tracking using Sensor Networks; Sridhar, P.; Madni, A.M.; Jamshidi, M.; Sensors Applications Symposium, 2007. SAS '07. IEEE; Feb. 6-8, 2007 pp. 1-5; Digital Object Identifier 10.1109/SAS.2007.374384.*

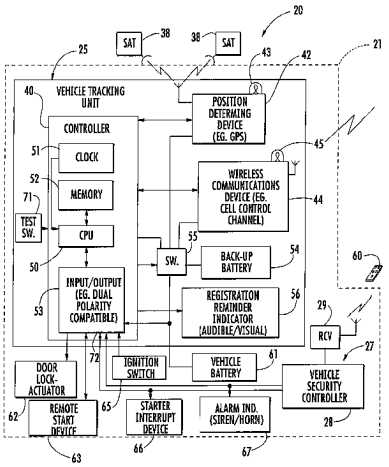
(Continued)

Primary Examiner — Cuong H Nguyen
(74) *Attorney, Agent, or Firm* — Allen, Dyer, Doppelt, Milbrath & Gilchrist, P.A.

(57) **ABSTRACT**

A multi-vehicle compatible tracking unit is for a vehicle including a vehicle data bus extending throughout the vehicle. The vehicle tracking unit may include a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller may be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. A downloading interface may be included for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller.

22 Claims, 13 Drawing Sheets



U.S. PATENT DOCUMENTS

5,515,043	A	5/1996	Berard et al.	340/988
5,635,693	A *	6/1997	Benson et al.	340/10.33
5,654,688	A	8/1997	Flick et al.	340/426
5,719,551	A	2/1998	Flick	340/426
5,940,007	A *	8/1999	Brinkmeyer et al.	340/825.69
6,011,460	A	1/2000	Flick	340/426
6,253,064	B1 *	6/2001	Monroe	455/66.1
6,611,755	B1 *	8/2003	Coffee et al.	701/213
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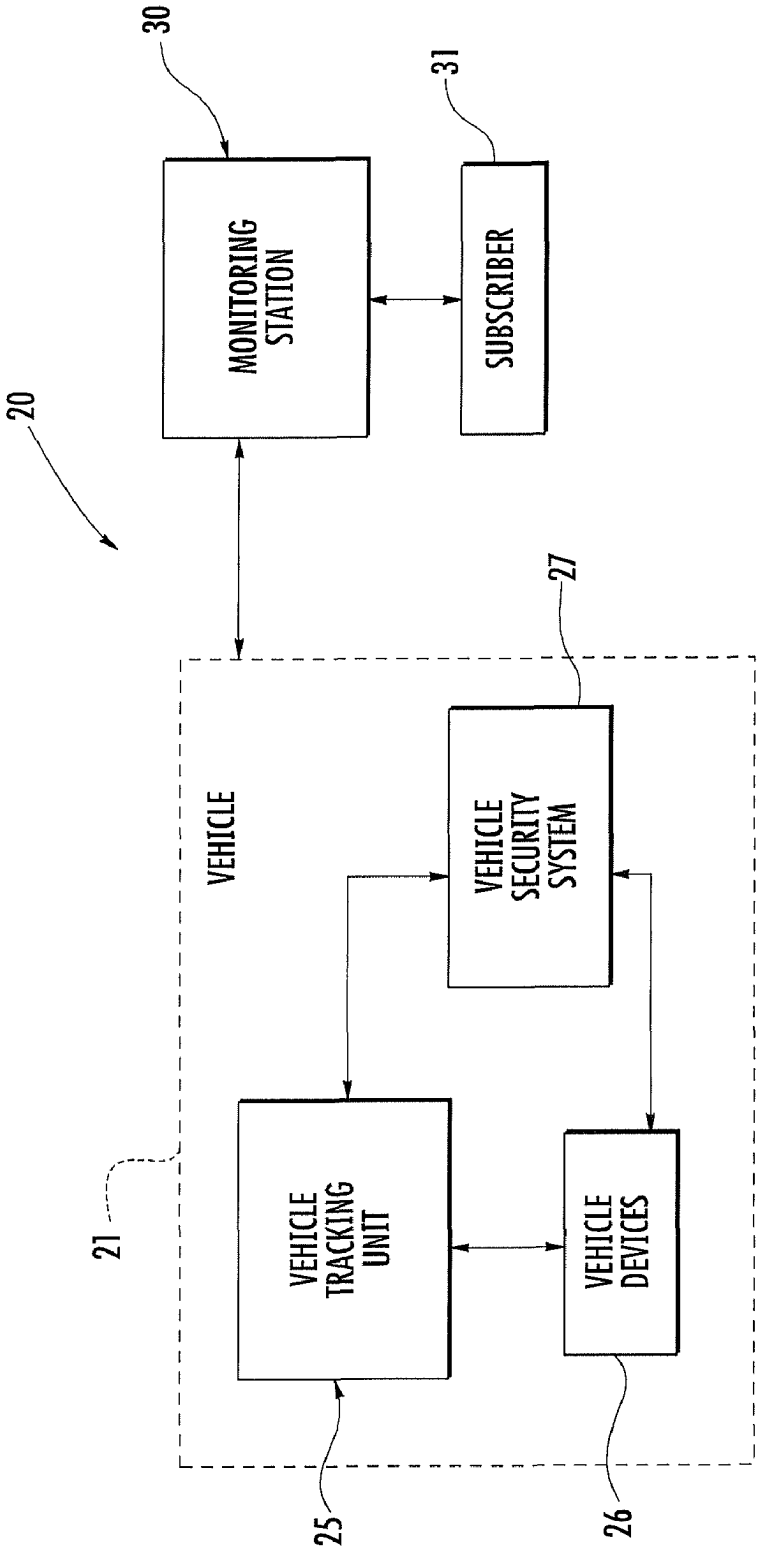

30
31
MONITORING STATION
SUBSCRIBER
20
27
VEHICLE
VEHICLE SECURITY SYSTEM
21
VEHICLE TRACKING UNIT
VEHICLE DEVICES
25
26

FIG. 1

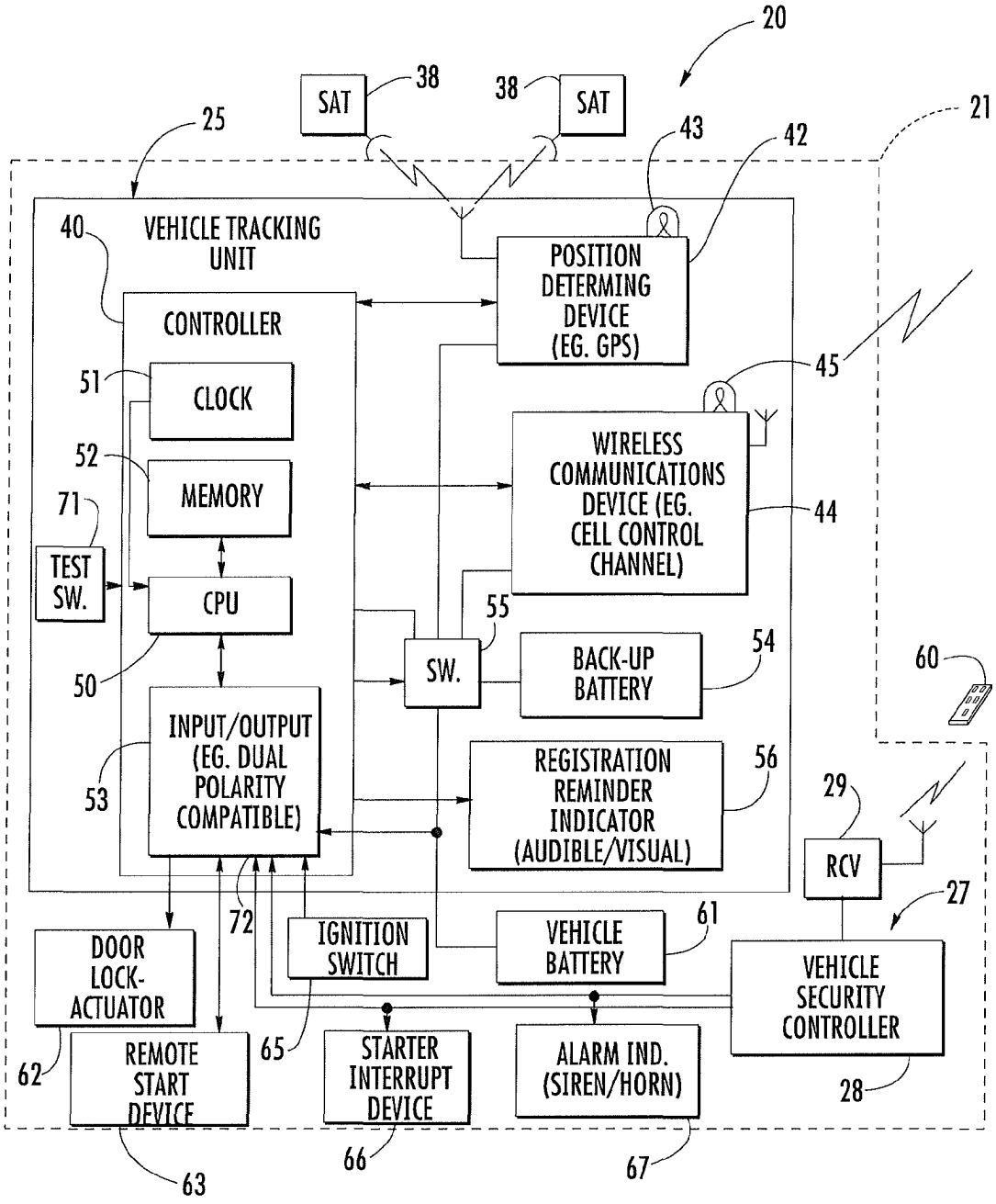

20
SAT
38
38
SAT
25
21
43
42
40
VEHICLE TRACKING UNIT
POSITION DETERMING DEVICE (EG. GPS)
CONTROLLER
45
51
CLOCK
52
MEMORY
WIRELESS COMMUNICATIONS DEVICE (EG. CELL CONTROL CHANNEL)
44
71
TEST SW.
CPU
55
SW.
BACK-UP BATTERY
54
60
50
INPUT/OUTPUT (EG. DUAL POLARITY COMPATIBLE)
53
REGISTRATION REMINDER INDICATOR (AUDIBLE/VISUAL)
56
29
RCV
27
72
IGNITION SWITCH
VEHICLE BATTERY
61
DOOR LOCK-ACTUATOR
VEHICLE SECURITY CONTROLLER
62
REMOTE START DEVICE
65
STARTER INTERRUPT DEVICE
ALARM IND. (SIREN/HORN)
28
63
66
67

FIG. 2

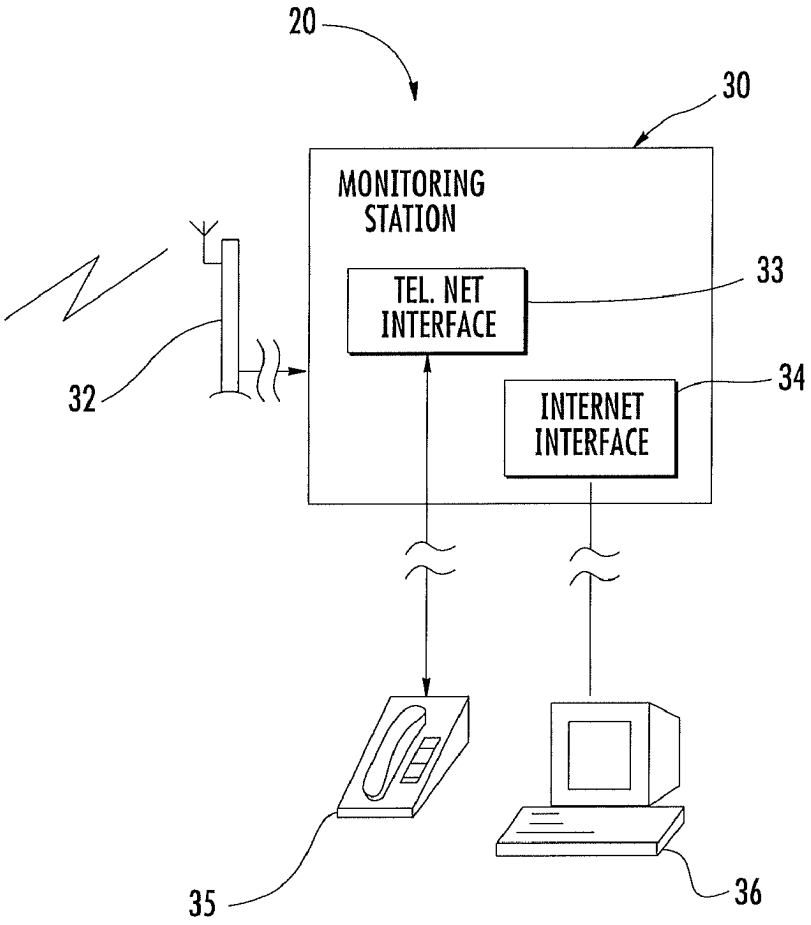

20
30
MONITORING STATION
TEL. NET INTERFACE
33
INTERNET INTERFACE
34
32
35
36

FIG. 3

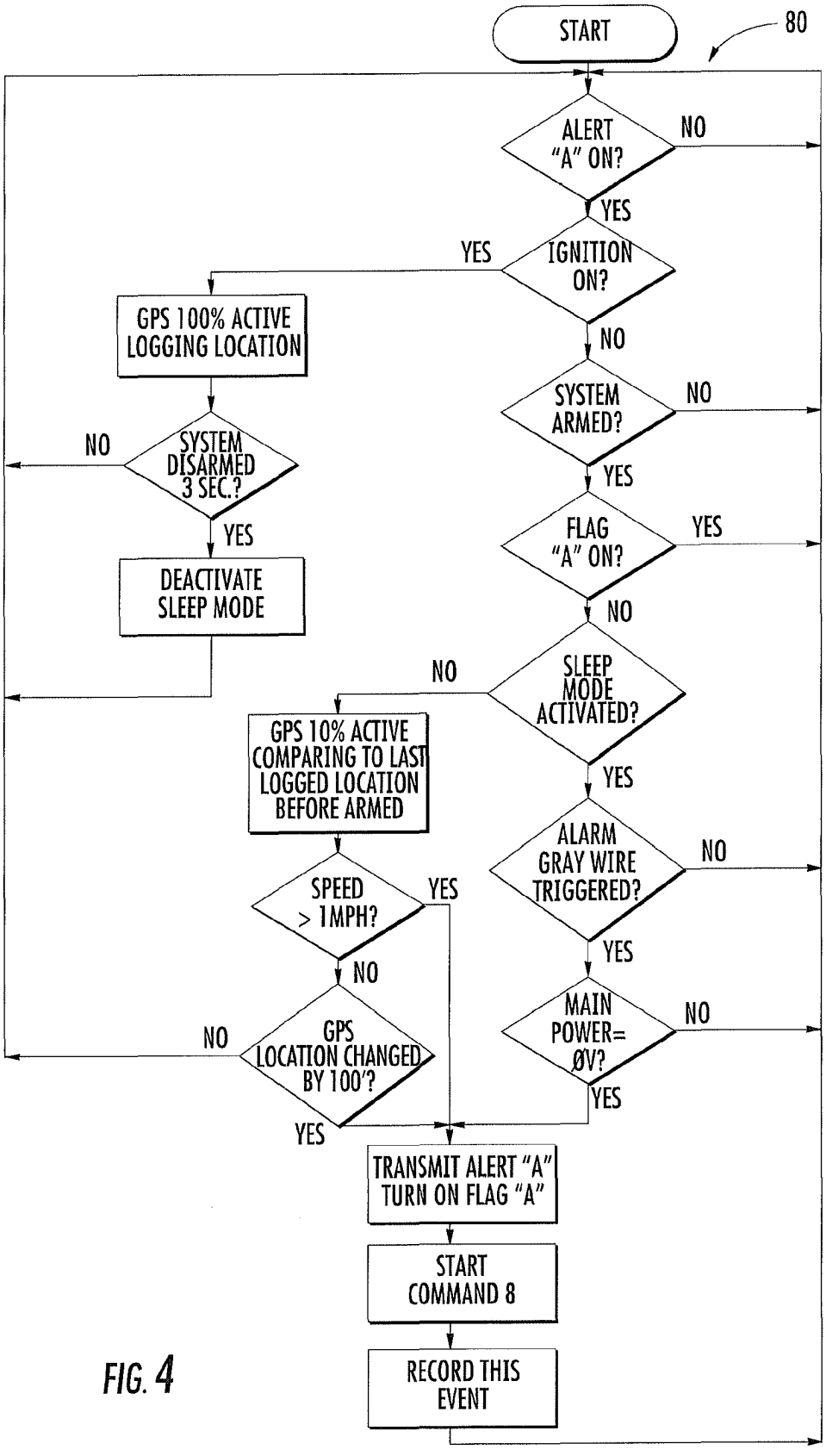

START
80
ALERT "A" ON?
NO
YES
IGNITION ON?
YES
GPS 100% ACTIVE LOGGING LOCATION
NO
SYSTEM ARMED?
NO
YES
SYSTEM DISARMED 3 SEC.?
NO
YES
DEACTIVATE SLEEP MODE
FLAG "A" ON?
YES
NO
SLEEP MODE ACTIVATED?
NO
GPS 10% ACTIVE COMPARING TO LAST LOGGED LOCATION BEFORE ARMED
YES
ALARM GRAY WIRE TRIGGERED?
NO
YES
SPEED > 1MPH?
YES
NO
MAIN POWER= ØV?
NO
YES
GPS LOCATION CHANGED BY 100'?
NO
YES
TRANSMIT ALERT "A" TURN ON FLAG "A"
START COMMAND 8
RECORD THIS EVENT

FIG. 4

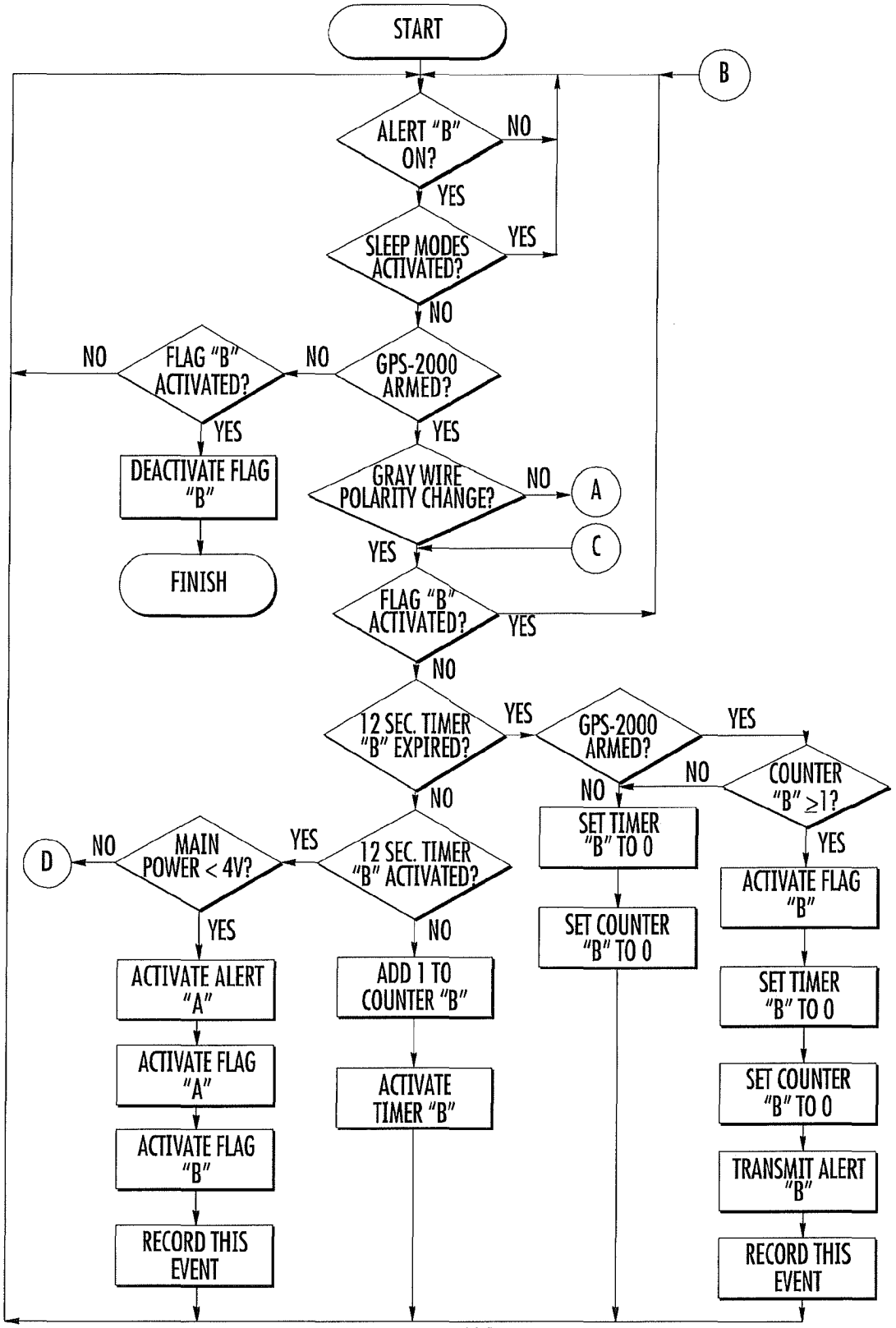

START
B
ALERT "B" ON?
NO
YES
SLEEP MODES ACTIVATED?
YES
NO
NO
FLAG "B" ACTIVATED?
NO
GPS-2000 ARMED?
YES
YES
DEACTIVATE FLAG "B"
GRAY WIRE POLARITY CHANGE?
NO
A
C
YES
FINISH
FLAG "B" ACTIVATED?
YES
NO
12 SEC. TIMER "B" EXPIRED?
YES
GPS-2000 ARMED?
YES
NO
NO
COUNTER "B" ≥1?
NO
SET TIMER "B" TO 0
YES
D
NO
MAIN POWER < 4V?
YES
12 SEC. TIMER "B" ACTIVATED?
ACTIVATE FLAG "B"
SET COUNTER "B" TO 0
YES
NO
ACTIVATE ALERT "A"
ADD 1 TO COUNTER "B"
SET TIMER "B" TO 0
ACTIVATE FLAG "A"
ACTIVATE TIMER "B"
SET COUNTER "B" TO 0
ACTIVATE FLAG "B"
TRANSMIT ALERT "B"
RECORD THIS EVENT
RECORD THIS EVENT

FIG. 5A

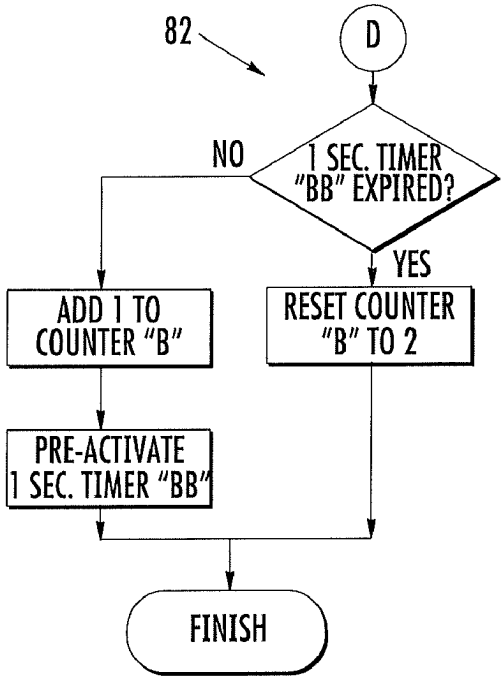

82
D
1 SEC. TIMER "BB" EXPIRED?
NO
YES
ADD 1 TO COUNTER "B"
RESET COUNTER "B" TO 2
PRE-ACTIVATE 1 SEC. TIMER "BB"
FINISH

FIG. 5B

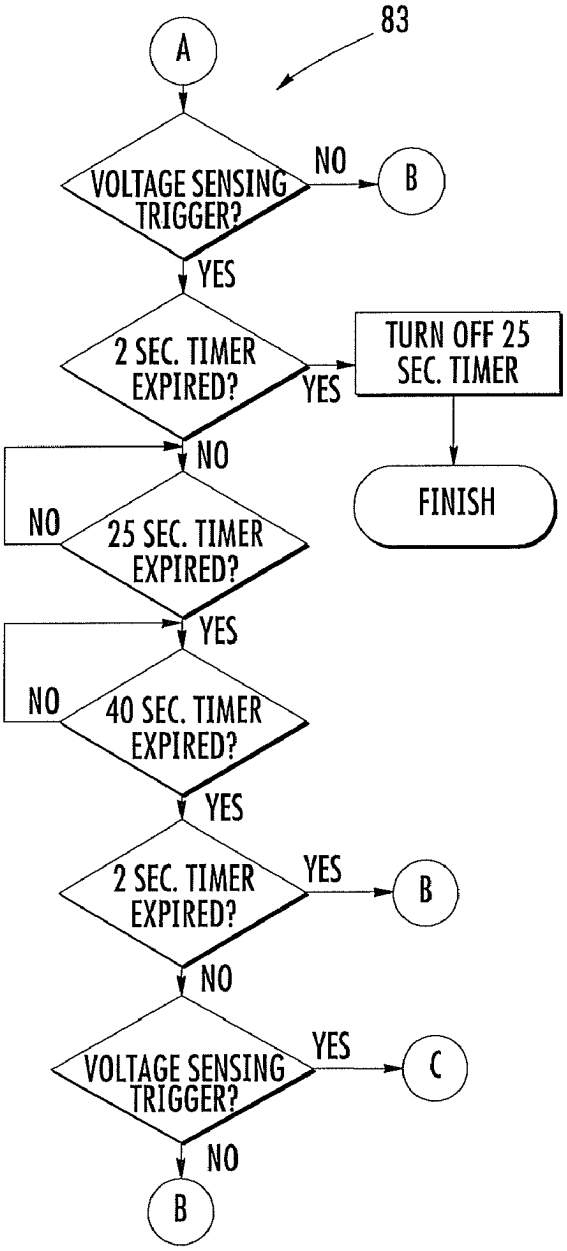

83
A
VOLTAGE SENSING TRIGGER?
NO
B
YES
2 SEC. TIMER EXPIRED?
YES
TURN OFF 25 SEC. TIMER
FINISH
NO
NO
25 SEC. TIMER EXPIRED?
YES
NO
40 SEC. TIMER EXPIRED?
YES
2 SEC. TIMER EXPIRED?
YES
B
NO
VOLTAGE SENSING TRIGGER?
YES
C
NO
B

FIG. 5C

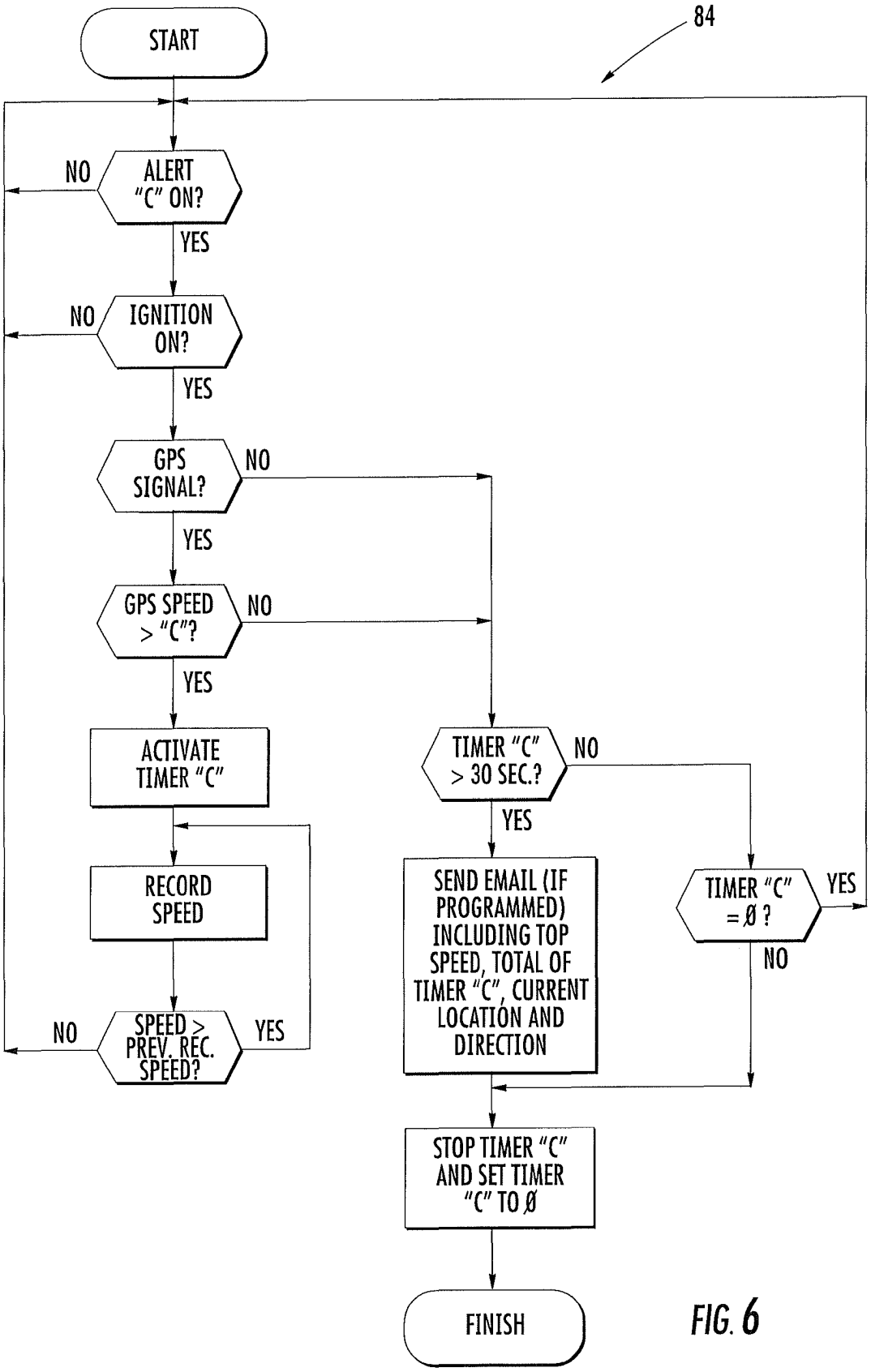

84
START
ALERT "C" ON?
NO
YES
IGNITION ON?
NO
YES
GPS SIGNAL?
NO
YES
GPS SPEED > "C"?
NO
YES
ACTIVATE TIMER "C"
RECORD SPEED
SPEED > PREV. REC. SPEED?
NO
YES
TIMER "C" > 30 SEC.?
NO
YES
SEND EMAIL (IF PROGRAMMED) INCLUDING TOP SPEED, TOTAL OF TIMER "C", CURRENT LOCATION AND DIRECTION
TIMER "C" = Ø ?
YES
NO
STOP TIMER "C" AND SET TIMER "C" TO Ø
FINISH

FIG. 6

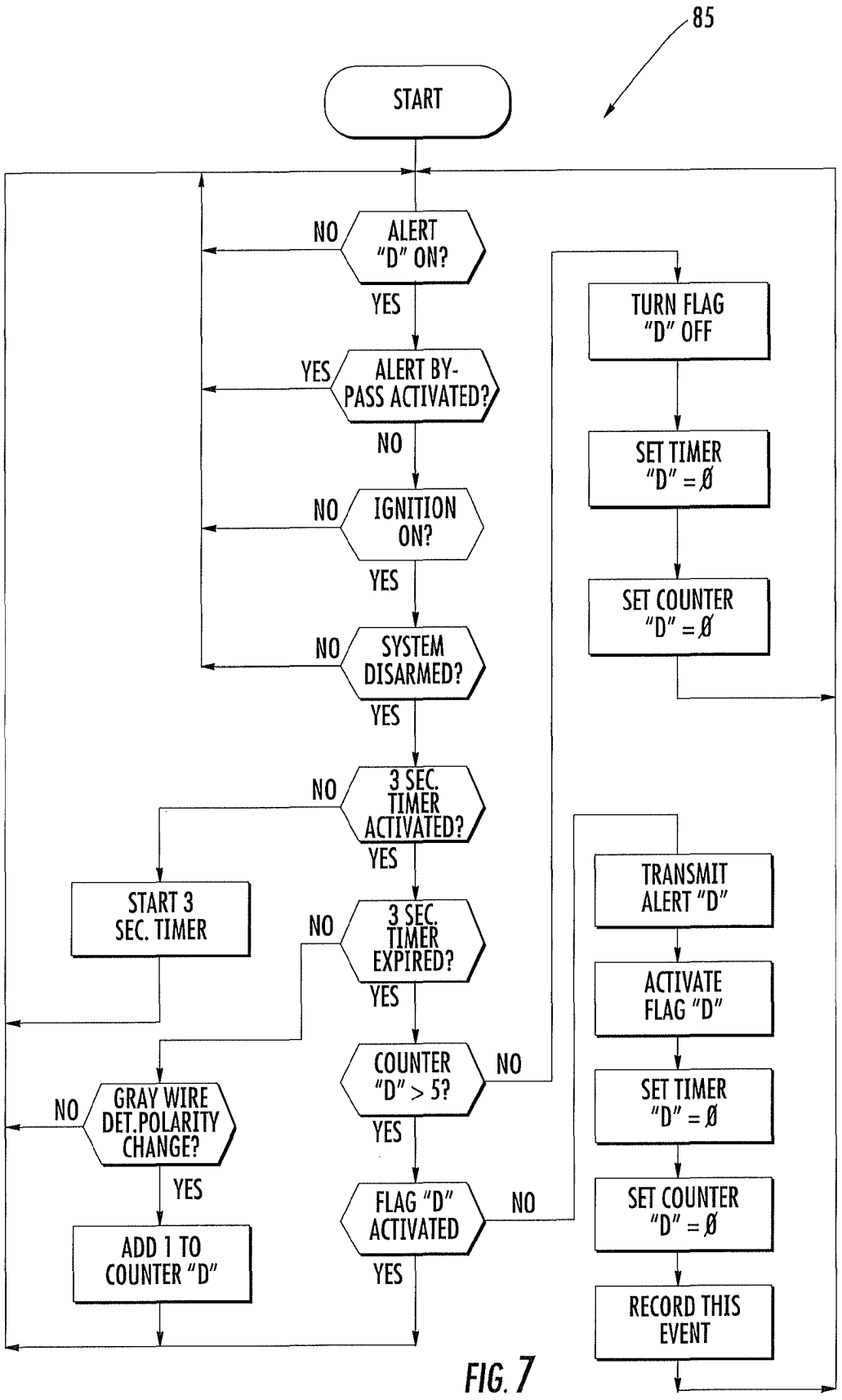

85
START
NO
ALERT "D" ON?
YES
YES
ALERT BY-PASS ACTIVATED?
NO
NO
IGNITION ON?
YES
NO
SYSTEM DISARMED?
YES
NO
3 SEC. TIMER ACTIVATED?
YES
START 3 SEC. TIMER
NO
3 SEC. TIMER EXPIRED?
YES
COUNTER "D" > 5?
NO
YES
NO
GRAY WIRE DET. POLARITY CHANGE?
YES
ADD 1 TO COUNTER "D"
FLAG "D" ACTIVATED
NO
YES
TURN FLAG "D" OFF
SET TIMER "D" = Ø
SET COUNTER "D" = Ø
TRANSMIT ALERT "D"
ACTIVATE FLAG "D"
SET TIMER "D" = Ø
SET COUNTER "D" = Ø
RECORD THIS EVENT

FIG. 7

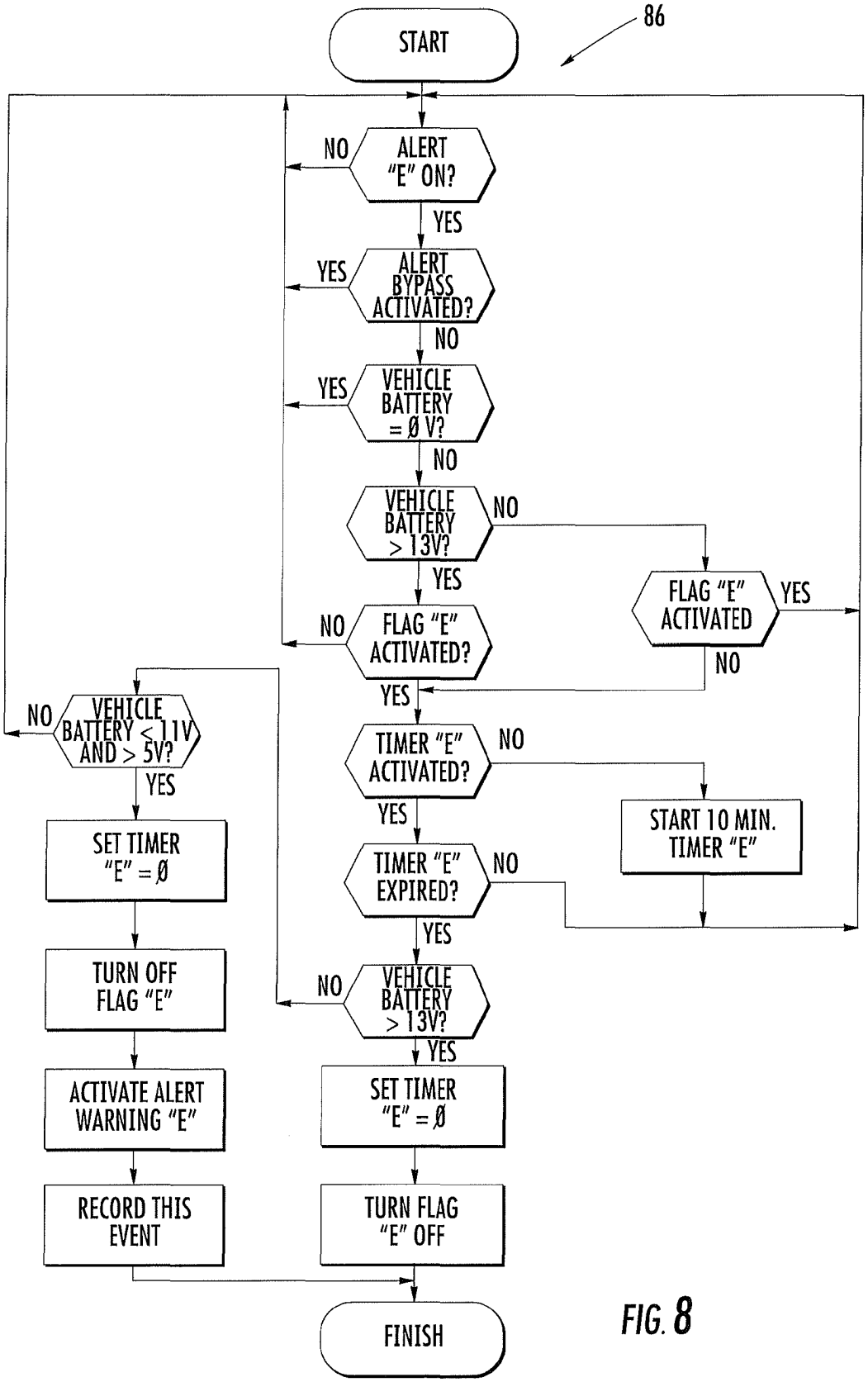

86
START
ALERT "E" ON?
NO
YES
ALERT BYPASS ACTIVATED?
YES
NO
VEHICLE BATTERY = Ø V?
YES
NO
VEHICLE BATTERY > 13V?
NO
YES
FLAG "E" ACTIVATED
YES
NO
FLAG "E" ACTIVATED?
NO
YES
VEHICLE BATTERY < 11V AND > 5V?
NO
YES
TIMER "E" ACTIVATED?
NO
YES
START 10 MIN. TIMER "E"
SET TIMER "E" = Ø
TIMER "E" EXPIRED?
NO
YES
TURN OFF FLAG "E"
VEHICLE BATTERY > 13V?
NO
YES
ACTIVATE ALERT WARNING "E"
SET TIMER "E" = Ø
RECORD THIS EVENT
TURN FLAG "E" OFF
FINISH

FIG. 8

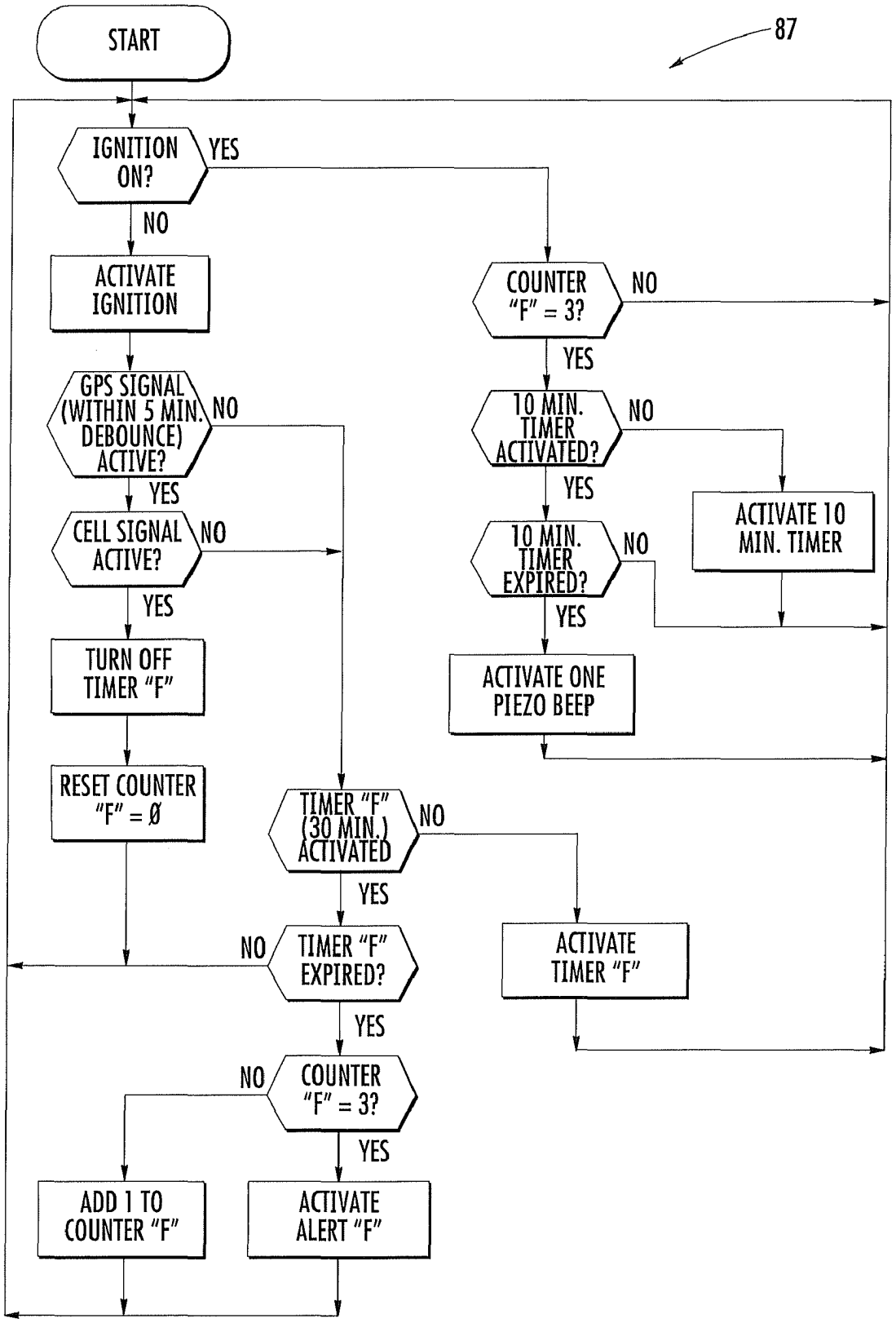

87
START
IGNITION ON?
YES
NO
ACTIVATE IGNITION
GPS SIGNAL (WITHIN 5 MIN. DEBOUNCE) ACTIVE?
NO
YES
CELL SIGNAL ACTIVE?
NO
YES
TURN OFF TIMER "F"
RESET COUNTER "F" = Ø
TIMER "F" (30 MIN.) ACTIVATED
NO
YES
NO
TIMER "F" EXPIRED?
YES
NO
COUNTER "F" = 3?
YES
ADD 1 TO COUNTER "F"
ACTIVATE ALERT "F"
COUNTER "F" = 3?
NO
YES
10 MIN. TIMER ACTIVATED?
NO
YES
ACTIVATE 10 MIN. TIMER
10 MIN. TIMER EXPIRED?
NO
YES
ACTIVATE ONE PIEZO BEEP
ACTIVATE TIMER "F"

FIG. 9

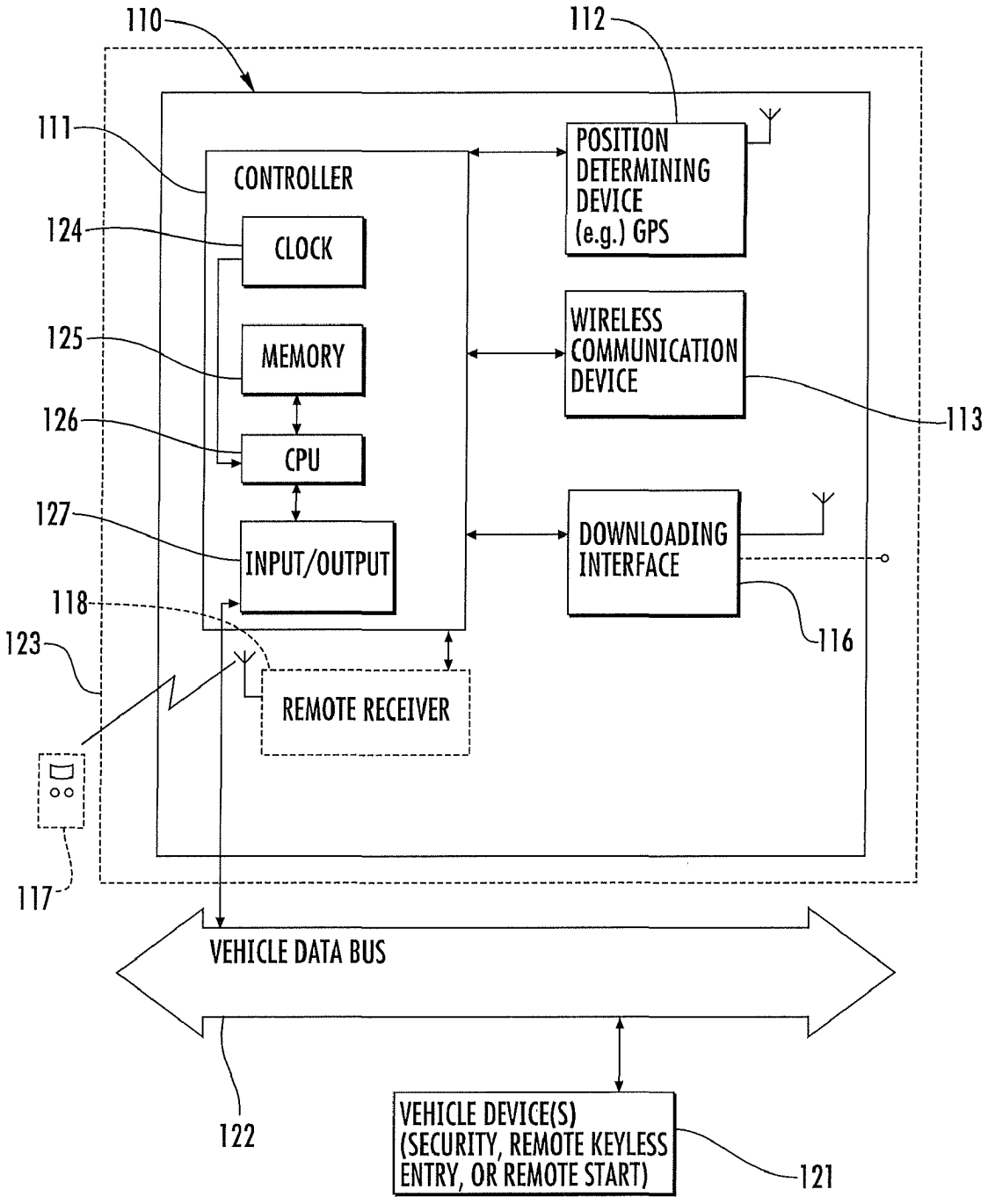

110
112
111
CONTROLLER
POSITION DETERMINING DEVICE (e.g.) GPS
124
CLOCK
125
MEMORY
WIRELESS COMMUNICATION DEVICE
113
126
CPU
127
INPUT/OUTPUT
DOWNLOADING INTERFACE
118
116
123
REMOTE RECEIVER
117
VEHICLE DATA BUS
122
VEHICLE DEVICE(S) (SECURITY, REMOTE KEYLESS ENTRY, OR REMOTE START)
121

FIG. 10

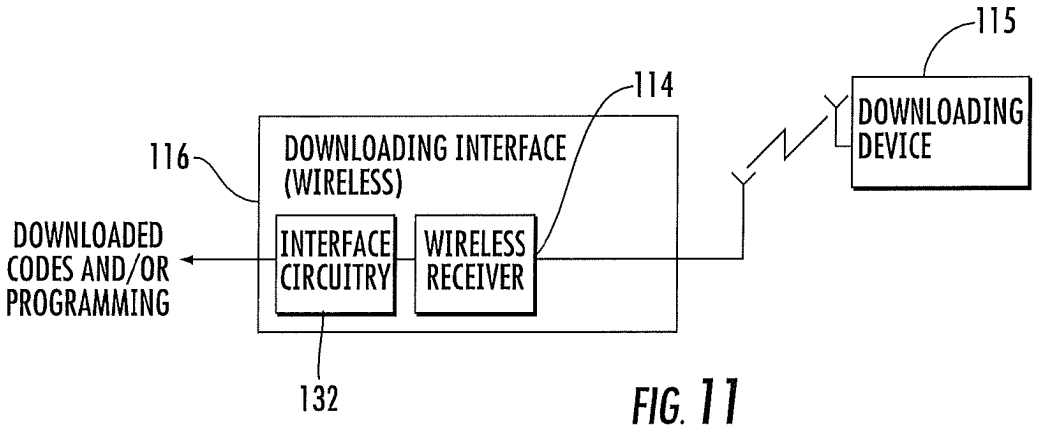


FIG. 11

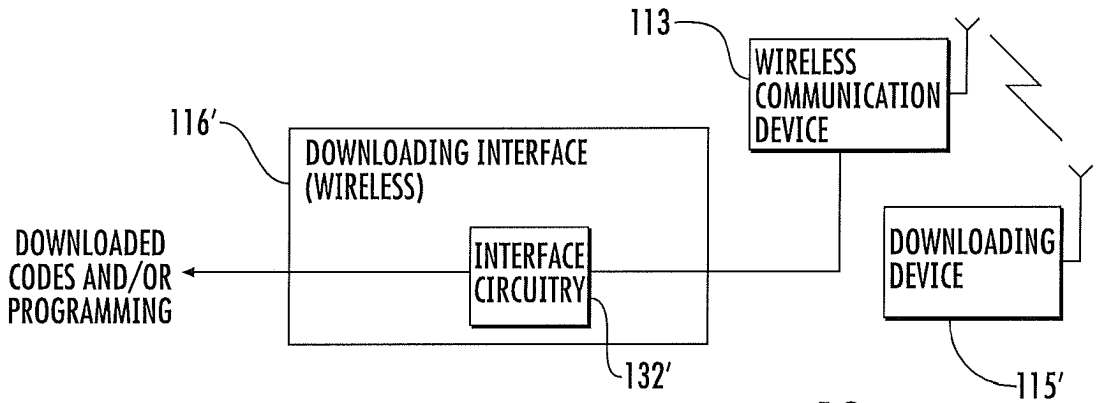


FIG. 12

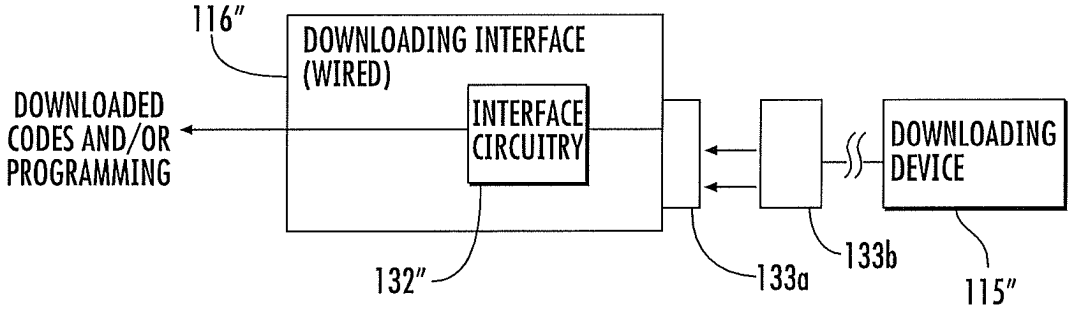


FIG. 13

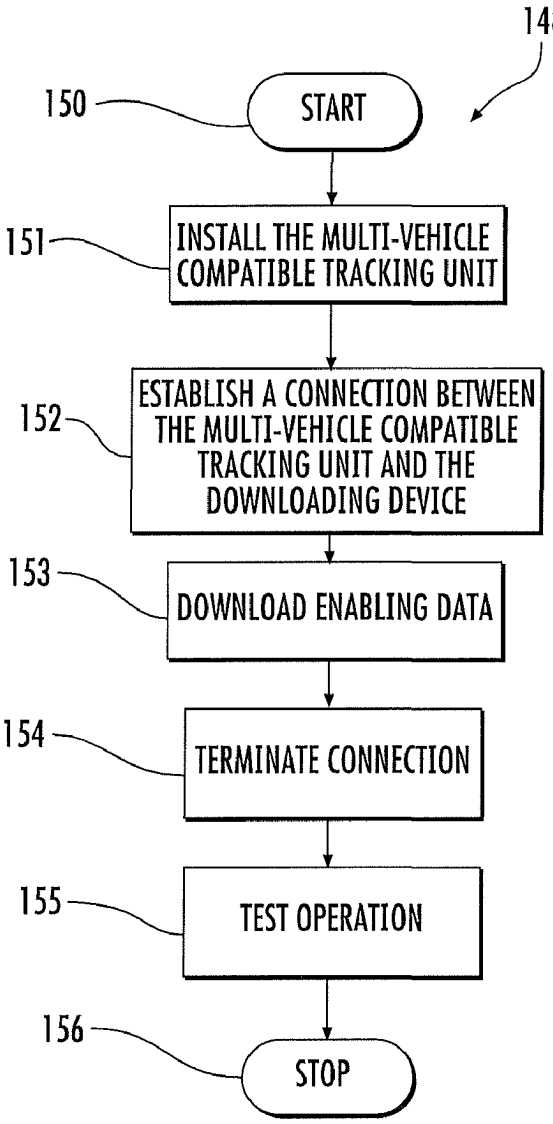

148
150
START
151
INSTALL THE MULTI-VEHICLE COMPATIBLE TRACKING UNIT
152
ESTABLISH A CONNECTION BETWEEN THE MULTI-VEHICLE COMPATIBLE TRACKING UNIT AND THE DOWNLOADING DEVICE
153
DOWNLOAD ENABLING DATA
154
TERMINATE CONNECTION
155
TEST OPERATION
156
STOP

FIG. 14

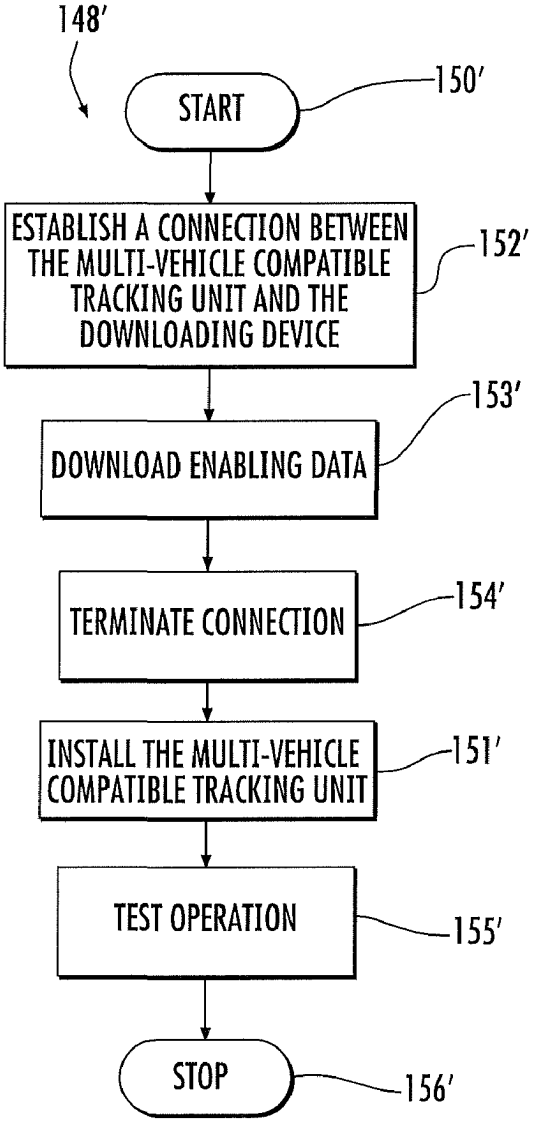

148'
150'
START
ESTABLISH A CONNECTION BETWEEN THE MULTI-VEHICLE COMPATIBLE TRACKING UNIT AND THE DOWNLOADING DEVICE
152'
DOWNLOAD ENABLING DATA
153'
TERMINATE CONNECTION
154'
INSTALL THE MULTI-VEHICLE COMPATIBLE TRACKING UNIT
151'
TEST OPERATION
155'
STOP
156'

FIG. 15

VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS

RELATED APPLICATIONS

The present application is a continuation-in-part of U.S. patent application Ser. No. 11/076,259 filed Mar. 9, 2005 now U.S. Pat. No. 7,720,597, which is a continuation of U.S. patent application Ser. No. 10/383,496 filed Mar. 7, 2003 now U.S. Pat. No. 7,149,623, which is a continuation of U.S. patent application Ser. No. 09/859,972 filed on May 17, 2001 now U.S. Pat. No. 6,606,561 which, in turn, was based upon provisional patent application Ser. Nos. 60/264,811 filed on Jan. 29, 2001; 60/258,005, filed Dec. 22, 2000; 60/251,552, filed Dec. 6, 2000; 60/252,125, filed Nov. 20, 2000; 60/236,890, filed Sep. 29, 2000; 60/246,463, filed Nov. 7, 2000; 60/222,777, filed Aug. 3, 2000; and 60/205,178, filed May 17, 2000, the entire contents of each of which are incorporated herein by reference.

FIELD OF THE INVENTION

The present invention relates to the field of vehicle devices, and, more particularly, to a tracking system for vehicles, and related methods.

BACKGROUND OF THE INVENTION

Motor vehicles, such as passenger cars, trucks, busses, fleet vehicles, etc. are widely used and knowing the locations of such vehicles is often desired. For example, should a vehicle be stolen, it would be beneficial to know the vehicle's location so that authorities could be promptly and accurately directed to retrieve the vehicle. Indeed, the tracking system could plot the getaway path of the thief.

For a company with hired drivers, it may be desirable to know the driver's whereabouts during the course of the day. Similarly, a rental car agency or other fleet operator, for example, may wish to know the whereabouts of its fleet of vehicles.

It may also be desirable to track the location of a vehicle as it is used throughout the course of a normal day. For parents of younger or older drivers, for example, knowledge of the vehicle's location may provide some assurance that the driver is at designated locations and following a prescribed route.

A number of patents disclose various systems and approaches to tracking vehicles. For example, U.S. Pat. No. 5,223,844 discloses a tracking system including a control center and a mobile unit installed in the vehicle. The mobile unit may send security warnings to the command center via a wireless transceiver. Position information for the vehicle is determined using a GPS receiver at the vehicle.

U.S. Pat. No. 5,515,043 discloses a similar system which may send one or more preprogrammed telephone messages to a user when away from the vehicle. The user may remotely access location information or cause certain commands to be carried out by entering a personal identification number (PIN).

The widespread availability and use of the Internet has prompted a number of vehicle tracking systems to also make use of the Internet. For example, TelEvoke, Inc. proposed such a system in combination with Clifford Electronics. The system was to provide notification, control and tracking services via the telephone or the Internet. Users could be notified via phone, e-mail, or pager of events such as a car alarm being triggered. Users could control the vehicle remote devices via phone, web, or PDA such as unlocking car doors. Additionally, users could track TelEvoke-enabled vehicles on the Internet or via the telephone. An Internet map could be viewed by the user showing the actual and prior vehicle locations. TelEvoke offered its services via a centralized fully automated Network Operations Center. To reduce the communications costs, it was proposed to use the control channel of the cellular telephone network.

There are, of course, a number of vehicles which come from the manufacturer with some form of security system already installed. In addition, a number of vehicles are also equipped with aftermarket security systems. Many conventional vehicle tracking units may not be readily installed in vehicles, particularly those vehicles already including a vehicle security system. In addition, complexity of installation may significantly increase the system costs.

A number of patents disclose various security and control systems that address data bus interoperability. For example, U.S. Pat. No. 5,719,551, assigned to Omega Patents, LLC, the assignee of the present invention, discloses a vehicle security system for a vehicle including a data bus connecting a plurality of vehicle devices. A signal enabling circuit enables the alarm controller to operate using a set of desired signals selected from a plurality of possible sets for different vehicles. U.S. Pat. No. 6,011,460, assigned to Omega Patents, LLC, discloses a similar system where the set of desired signals from the plurality of different sets of signals for different vehicles is obtained, such as by connection and communication with a downloading device. Additionally, U.S. Pat. No. 6,756,885, also assigned to Omega Patents, LLC, discloses a multi-vehicle control system whereby a multi-vehicle compatible controller stores a set of device codes for a given vehicle device for a plurality of different vehicles. Device codes are read from the data communications bus, and a match between a read device code and the stored device codes is determined to provide compatibility with different vehicles.

Unfortunately, such advanced techniques for dealing with multiple device codes for a vehicle having a data communications bus have not yet been developed for vehicle tracking units.

SUMMARY OF THE INVENTION

In view of the foregoing background, it is therefore an object of the present invention to provide a multi-vehicle compatible tracking unit which may be used to control operable vehicle devices, and/or read information therefrom via the vehicle data communications bus and related methods.

This and other objects, features, and advantages in accordance with the present invention are provided by a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit may include a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller may be coupled to the vehicle data bus for communication thereover with at least one vehicle device. The at least one vehicle device may use at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The tracking unit may also include a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller. Accordingly, the multi-vehicle compatible

tracking unit may be used to control operable vehicle devices, and/or read information therefrom via the vehicle data communications bus.

The downloading interface may comprise either a wired or wireless signal downloading interface. The wired signal downloading interface may comprise a connector for temporary connection to a downloading device, for example. The wireless signal downloading interface may include a wireless receiver for temporary connection to a downloading device. The wireless signal downloading interface may also be in the form of a connection to the wireless communications device used for sending position information. The downloading interface may also be for permitting downloading of at least one programming instruction for the multi-vehicle compatible controller, in some embodiments.

The corresponding at least one vehicle code may be for reading from the at least one vehicle device, and/or for writing to the at least one vehicle device. Further, the multi-vehicle compatible tracking unit may comprise a remote transmitter. At least one vehicle remote control function responsive to the remote transmitter may be performed by the multi-vehicle compatible controller. For example, the at least one vehicle remote control function may include at least one of a vehicle security function, a remote keyless entry function, and a remote engine starting function. Also, the wireless position determining device may comprise a Global Positioning System (GPS) receiver. A tracking unit may also include a common housing for its various components.

A method aspect is for using a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The multi-vehicle compatible tracking unit may include a vehicle position determining device, a wireless communications device, and a multi-vehicle compatible controller for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The multi-vehicle compatible controller may be coupled to the vehicle data bus for connection thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality of thereof for different vehicles. The method may include downloading the enabling data related to at least one corresponding vehicle device code for use by the multi-vehicle compatible controller via a downloading interface.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a simplified block diagram of a vehicle tracking system in accordance with the present invention.

FIG. **2** is a more detailed block diagram of the vehicle tracking unit as shown in FIG. **1**.

FIG. **3** is a more detailed block diagram of the monitoring station as shown in FIG. **1**.

FIG. **4** is a flowchart for operation of the vehicle tracking system as shown in FIG. **1** illustrating a vehicle stolen alert.

FIGS. **5**A-**5**C are a flowchart for operation of the vehicle tracking system as shown in FIG. **1** illustrating a vehicle alarm sounding alert.

FIG. **6** is a flowchart for operation of the vehicle tracking system as shown in FIG. **1** illustrating a vehicle speeding alert.

FIG. **7** is a flowchart for operation of the vehicle tracking system as shown in FIG. **1** illustrating an unauthorized transmitter learned alert.

FIG. **8** is a flowchart for operation of the vehicle tracking system as shown in FIG. **1** illustrating a low battery alert.

FIG. **9** is a flowchart for operation of the vehicle tracking system as shown in FIG. **1** illustrating a GPS or cellular unit failure alert.

FIG. **10** is a simplified block diagram of a multi-vehicle compatible tracking unit in accordance with the invention.

FIG. **11** is a more detailed block diagram of an embodiment of the downloading interface as shown in FIG. **10**.

FIG. **12** is a more detailed block diagram of another embodiment of a downloading interface as shown in FIG. **10**.

FIG. **13** is a more detailed block diagram of yet another embodiment of the downloading interface as shown in FIG. **10**.

FIG. **14** is a flowchart showing a method in accordance with the invention.

FIG. **15** is a flowchart showing another embodiment of a method in accordance with the invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention will now be described more fully hereinafter with reference to the accompanying drawings in which preferred embodiments of the invention are shown. This invention may, however, be embodied in many different forms and should not be construed as limited to the illustrated embodiments set forth herein. Rather, these embodiments are provided so that this disclosure will be thorough and complete, and will fully convey the scope of the invention to those skilled in the art. Like numbers refer to like elements throughout, and prime notation and multiple prime notation are used to indicate similar elements in alternate embodiments.

Referring to FIGS. **1-3**, the vehicle tracking system **20** in accordance with the invention is now initially described. The vehicle system **20** illustratively includes a vehicle tracking unit **25** to be mounted in the vehicle **21** and a monitoring station **30** which is remote from the vehicle and which is typically in a fixed location. In the illustrated embodiment, the vehicle tracking unit **25** interfaces with various vehicle devices, such as may include security sensors, door locks, etc. as will be appreciated by those skilled in the art.

The vehicle tracking unit **25** is also illustratively connected to a separate vehicle security system **27** as may already be installed in the vehicle **21**, from the factory or installed as an aftermarket product. Those of skill in the art will appreciate that in some embodiments of the vehicle tracking system **20** a separate vehicle security system **27** may not be needed, and/or various features thereof can be readily incorporated in the vehicle tracking unit **25**.

The monitoring station **30** may typically service a number of subscribers **31**. As shown perhaps best in FIG. **3**, the monitoring station **30** may include a user interface, such as the schematically illustrated telephone network interface **33** and the internet interface **34** which are schematically coupled to a telephone **35**, and a computer **36**, respectively. Of course in other embodiments, other interfaces may be used and only one of the illustrated interfaces may be needed. Those of skill in the art will also recognize that messages may be sent to a subscriber or user via preprogrammed voice messages, e-mail messages, facsimile messages, pager alerts, etc. In addition commands or instructions from the subscriber can also be input to the monitoring station **30** via the telephone network interface **33** and/or the internet interface **34**, from the subscribers telephone **35** or computer **36**.

The monitoring station **30** is illustratively connected to a cellular telephone tower **32** which, in turn, may communicate with the vehicle tracking unit **25** in some embodiments. Of course, in other embodiments other communications

approaches are also contemplated, such as, for example, including satellite communications.

The monitoring station **30** may typically include the necessary modems, and other communications electronics, and computers for its functions which are described in greater detail below. The configuration of such components and their details will be readily apparent to those skilled in the art. Accordingly, no further discussion of these details is needed.

Referring now more specifically to FIG. **2**, additional details of the vehicle tracking unit **25** and devices at the vehicle are now further described. The vehicle tracking unit **25** illustratively includes a controller **40**, a vehicle position determining device **42**, and a wireless communications device **44** connected together. The vehicle position determining device **42** may be provided by a GPS receiver, for example. The GPS receiver typically operates by receiving multiple signals from spaced apart satellites **38** as will be appreciated by those skilled in the art.

In other embodiments, the vehicle position determining device **42** may be provided based upon communications with the cellular telephone network, or based upon other satellite transmissions, for example. As a particular example, time of arrival techniques are available based upon multiple reception paths to determine position via the cellular telephone network as will be appreciated by those skilled in the art. The vehicle position determining device **42** also illustratively includes an indicator **43** associated therewith, such as for indicating an operating mode, or proper operation of the device as will be addressed in greater detail below.

The wireless communications device **44** may be provided by a cellular telephone transceiver configured to operate on a control channel of the cellular network. Such a control channel may provide nearly universal coverage for the tracking system **20** as will be appreciated by those skilled in the art. In addition, the control channel may offer relatively inexpensive communications between the monitoring station **30** and the vehicle tracking unit **25** as will be appreciated by those skilled in the art. The wireless communications device **44** also illustratively includes an optional status indicator **45** with a similar function as the indicator **43** for the vehicle position determining device.

The wireless communications device **44** in other embodiments, may transmit in the voiceband of the cellular network. Alternately, the wireless communications device may communicate over other networks, such as over satellite, or via wireless internet services, as will be appreciated by those skilled in the art.

The controller **40** illustratively includes a central processing unit (CPU) **50** or other logic circuitry which is connected to a clock signal generator **51** and a memory **52**. In other embodiments, the memory **52** may be an embedded memory in the CPU **50**. The controller **40** also includes schematically illustrated input/output circuitry **53** to interface with various vehicle devices. In particular the input/output circuitry **53** may provide dual polarity compatibility for one or more inputs or outputs as will be described in greater detail below. One or more of the terminals of the input/output circuitry **53** may also provide both input and output functions as will also be described in greater detail below. This may significantly simplify and accelerate installation of the vehicle tracking unit **25** in the vehicle **21**.

Also illustratively shown as part of the vehicle tracking unit **25** are a back-up battery **54**, and switch **55** connected thereto for selectively powering certain of the components based upon the controller **40**. Of course, the vehicle **21** also includes an electrical system including the vehicle battery **61**. Powering of the vehicle tracking unit **25** is described in greater detail below.

The vehicle **21** also includes a number of other components that may relate to vehicle tracking, security, and/or convenience features provided by the vehicle tracking system **20**. For example, the vehicle **21** may include one or more door lock actuators **62**, an optional remote starting device **63**, a starter interrupt device **66** and an alarm indicator **67**. For example, the alarm indicator may be provided by a vehicle horn or vehicle siren, and/or flashing of the lights.

The optional separate security system **27** illustratively includes a vehicle security controller **28** and a receiver **29** connected thereto. As is conventional, the vehicle security system **27** may be switched between armed and disarmed modes, for example, by one or more uniquely coded remote transmitters **60**. The vehicle security controller **28** may also be capable of learning a new uniquely coded remote transmitter **60** as will be appreciated by those skilled in the art. The vehicle security controller **28** also illustratively is connected to the starter interrupt device **66** and the alarm indicator **67**.

For ease of explanation, a number of the features of the vehicle tracking system **20** are now described. The vehicle tracking system **20** includes a number of features that may simplify installation and maintenance. For example, as shown in FIG. **2**, the vehicle tracking unit **25** may have a test switch **71** connected to the controller **40**.

In normal operation, the controller **40** may be called upon to operate at least one vehicle device. Of course, the controller **40** also cooperates with the wireless communications device **44** and the vehicle position determining device **42** to determine and send vehicle position information to the monitoring station **30**. Moreover, the controller **40** may be switchable to a test mode for test operation of the at least one vehicle device responsive to activation of the test switch **71**.

In some embodiments, the at least one vehicle device may be a plurality of vehicle devices that are tested by operation in sequence. For example, the at least one vehicle device may comprise at least one door lock actuator **62**. The at least one vehicle device may also comprise the starter interrupt device **66**, or the engine remote starter **63** if remote starting is an implemented feature. The at least one vehicle device which is tested, may also be the alarm indicator **67**. Accordingly, an installer, for example, can quickly check that the tracking unit has been properly installed.

To further provide for ready determination of proper operation of the vehicle tracking unit **25**, one or both of the position determining and wireless communications devices **42**, **44** may include associated indicators **43**, **45** as mentioned briefly above, and which provide an indication relating to proper operation. Each indicator **43**, **45** may indicate a mode of operation of the device, its proper operation, or a partial or complete failure of the device.

Another aspect of the invention is that the controller **40** may provide a selectable polarity for the at least one vehicle device based upon sensing thereof. Accordingly, a predetermined activation of the test switch **71** may cause the controller **40** to sense and select the proper polarity. Pressing the test switch **71** for a predetermined time or in a predetermined pattern may sense and set the polarity.

Another feature of the vehicle tracking unit **25** and vehicle tracking system **20** relates to conservation of the number of codes or messages that need to be sent to the vehicle tracking unit. In particular, the controller **40** may have a plurality of different controller states and respond differently to a same message from the monitoring station **30** at different times depending upon the controller state at a given time. Accord-

ingly, a number of codes or messages used by the system can be conserved. Various messages are described in greater detail below.

A controller state may change based upon several different occurrences or events. For example the controller may change states in response to a change in at least one vehicle device, or based upon a message received by the wireless communications device **44** from the monitoring station **30**, and/or based upon elapsed time. The controller states, for example, may include an alert sent state based upon an alert message being sent from the wireless communications device **44**. Thereafter, receipt of a predetermined message by the wireless communications device **44** when the controller **40** is in the alert sent state may confirm receipt of the alert message by the monitoring station.

Receipt of the predetermined message by the wireless communications device **44** when the controller **40** is in another state different than the alert sent state may thus cause a different response by the controller. The alert sent state may comprise at least one of a vehicle stolen alert sent state, a vehicle alarm sounding alert sent state, a vehicle speeding alert sent state, an unauthorized remote transmitter alert sent state, a low vehicle battery alert sent state, and a device malfunction alert sent state. The various alert messages and confirmation thereof are described in greater detail below.

The code or message conservation aspects of the vehicle tracking system **20** also permit sending a sequence of codes or messages within a predetermined time to also cause a different response at the vehicle tracking unit **25**. In other words, the plurality of controller states may comprise a received first message state based upon a first message being received by the wireless communications device **44** from the monitoring station **30**. Receipt of a second message by the wireless communications device **44** when the controller **40** is in the received first message state, such as within a predetermined time window, for example, may thus cause a different response by the controller than does receipt of the second message when the controller is in another state than the received first message state.

The plurality of controller states may comprise a vehicle finder state sounding an audible signal via the alarm indicator **67** at the vehicle **21**. In this state the controller **40** would bypass sending a vehicle alarm sounding alert to the monitoring station **30**.

Another aspect of the vehicle tracking system **20** is the provision of certain power conservation and management techniques, such as to permit extended periods where the vehicle **21** is not in operation. During such extended periods, the vehicle battery **61** provides power to the vehicle tracking unit **25** as well as other vehicle devices. Accordingly, the voltage of the vehicle battery **61** drops over time. The vehicle tracking unit **25** may provide a significant drain on the vehicle battery **61** because of the power consumed by the wireless communications device **44** during transmission as will be appreciated by those skilled in the art.

The vehicle position determining device **42**, the wireless communications device **44** and the controller **40** may be considered as defining a power load of the vehicle tracking unit **25**. The controller **40** may operate the schematically illustrated power switch **55** to isolate the back-up battery **54** from the power load as a voltage of the vehicle battery **61** drops until reaching a threshold. After or below the threshold the controller **40** may cause the back-up battery **54** to selectively power only a first portion of the power load while a second portion of the power load remains powered by the vehicle battery.

For example, the wireless communications device **44** may have a higher operating voltage than the vehicle position determining device **42**. The first portion of the power load that is selectively powered despite the low vehicle battery voltage may thus be the wireless communications device **44**. In particular, the wireless communications device **44** may be powered for transmission. Accordingly, the back-up battery **54** can be saved for limited communication using the higher voltage wireless communications device **44**. This provides useful features even after an extended period during which the vehicle **21** is left unattended and the vehicle battery **61** gradually discharges.

To further conserve power, the controller **40** may reduce operation of the power load as vehicle battery voltage falls. Conversely, the controller **40** may restore operation of the power load based upon the voltage of the vehicle battery **61** rising again, such as upon being recharged.

Also relating to power consumption, the controller **40** further causes transmission of a low vehicle battery voltage alert to the monitoring station **30** based upon the voltage of the vehicle battery **61** falling below the threshold. The user or subscriber may cause the monitoring station **30** to issue a remote start command. The controller **40** may then generate a remote start output to the remote start device **63** to thereby start the engine and recharge the vehicle battery.

Another feature of the vehicle tracking system **20** is that the vehicle tracking unit **25** may be readily installed and connected to a vehicle **21**, such as in the illustrated embodiment where the vehicle includes a starter interrupt device **66** and a separate vehicle security controller **28**. More particularly, the controller **40** may switch between an armed mode and a disarmed mode based upon operation of the engine starter interrupt device **66**. The controller **40** when in the armed mode may cooperate with the wireless communications device **44** to send an alert message to the monitoring station **30** and including vehicle position information, for example, based upon the vehicle position determining device **42**. The controller **40** is also for selectively operating the engine starter interrupt device **66** to provide additional security features.

In one advantageous embodiment, the controller **40** preferably comprises a combination input and output terminal for connection to the engine starter interrupt device. This terminal is at the input/output circuitry **53** and is schematically illustrated by reference numeral **72**. The controller **40** may switch to the armed mode when in the disarmed mode and based upon the engine starter interrupt device **66** being operated to disable engine starting. Conversely, the controller **40** may switch to the disarmed mode based upon the engine starter interrupt device **66** being operated to enable engine starting. In other words, the vehicle tracking unit **25** can piggyback its arming and disarming off the existing vehicle security system **27**, for example.

The controller **40** may also selectively operate the engine starter interrupt device **66** based upon a command message from the monitoring station **30**. The controller **40** may selectively operate the engine starter interrupt device **66** based upon a command message from the monitoring station **30**. Alternately, or in addition thereto, the controller **40** may selectively operate the engine starter interrupt device **66** based upon the ignition switch **65**.

The following descriptive portions relate to various user or subscriber notifications and features provided by the vehicle tracking system **20**. Of course, the controller **40** preferably cooperates with the wireless communications device **44** to send an alert message. The monitoring station **30** may comprise a user interface, such as one or both of the telephone

network or internet interfaces **33**, **34**, respectively (FIG. **3**), for generating a sequence of alert message notifications based upon receiving the alert message sent from the vehicle tracking unit **25**. More particularly, the monitoring station interface permits canceling any remaining alert message notification based upon a cancellation command response from a user or subscriber having already received the alert message notification. The user may send the cancellation response via the telephone **35** or computer **36** (FIG. **3**), for example. Thus, if the user may be reached at different telephone numbers or different users are desirably notified of the alert, this aspect of the vehicle tracking system **20** can make the notifications efficiently and without making unnecessary notifications.

The vehicle tracking system **20** may provide any of a number of very useful alerts, as discussed herein. For example, the alert message sent from the vehicle tracking unit may comprise at least one of a vehicle stolen alert message, and a vehicle alarm sounding alert message. The alert message may be one of a vehicle speeding alert message, and a vehicle acceleration alert message. In addition, the alert message may comprise an unauthorized remote transmitter alert message. Also, the alert message may be at least one of a low vehicle battery alert message, and a device malfunction alert message.

The speeding alert may be based upon exceeding a speed threshold for greater than a certain time, which may be user selectable. The acceleration alert may also be useful as such is also indicative of aggressive driving along with the speeding alert. The unauthorized remote transmitter alert increases overall security since a user will be notified if a would-be thief learns an unauthorized transmitter to operate the controller. These alerts are described in greater detail below.

The vehicle tracking system **20** may be implemented as a service to a subscriber. In other words, the subscriber pays a monthly fee for the service. Accordingly, it may be important to encourage a user to register. Similar subscriber or registrations systems in the past have suffered revenue losses since some users would wait to activate the system until the vehicle was stolen. In other words, the user would only subscribe or register and pay a single month's fee.

In accordance with this aspect of the vehicle tracking system **20** prompt user registration is encouraged. In particular, the vehicle tracking unit **25** may include the user registration reminder indicator **56** and the controller **40** may be switchable from an unregistered mode to a registered mode. In the registered mode, the controller **40** may cooperate with the wireless communications device **44** and the vehicle position determining device **42** to determine and send vehicle position information to the monitoring station **30**. In the unregistered mode, the controller **40** may activate the user registration reminder indicator **56** to encourage registration by the user.

The controller **40** may be switchable to the registered mode based upon an activation message from the monitoring station **30**. For example, when the registration payment has been received, the monitoring station can send one or more messages to the vehicle tracking unit **25** to stop activation of the registration reminder indicator **56**. The indicator **56** may be audible, visual or both. For example, the registration reminder indicator **56** could be a beeping sound generated by a small piezoelectric transducer every ten minutes or so when the ignition **65** is on.

In other words, the user registration reminder indicator **56** may provide a minor but irritating annoyance to the user to encourage registration. Upon successfully registering, the annoyance is abated. Accordingly, a relatively straightforward approach is provided to encourage user registration.

Along these lines, the controller **40** when in the unregistered mode may have reduced features compared to the registered mode. For example, the controller **40** when in the unregistered mode may be restricted or limited in sending messages with the wireless communications device **44**. Accordingly, usage of the wireless communications network may be reduced. Transmissions from the vehicle tracking unit **25** may also be beneficially suppressed during original installation, for example.

Returning again to features of the vehicle tracking unit **25** which facilitate installation, the controller **40** may send an alarm indication alert responsive to a continuous activation of the alarm indicator **67** for greater than a predetermined time. Alternately, or in addition thereto, the controller **40** may send an alarm indication alert responsive to a repetitive pattern of alarm indicator **67** activations. In other words, the controller may be configured to distinguish between normal operation of a vehicle horn by the driver, and activation of the horn by the security system **27**. As mentioned above, the controller **40** may also monitor signals of at least one of a first and second polarity. The controller **40** thus advantageously piggybacks off the alarm indication generated by the vehicle security system **27** to determine and send a vehicle alarm sounding alert to the monitoring station **30**.

In one variation, the controller **40** may monitor signals delivered directly to the vehicle alarm indicator by the vehicle security controller **28**. In another variation, the controller **40** monitors signals of voltage dips of the vehicle battery **61**. Circuitry is conventionally and readily available for both such functions, as will be readily appreciated by those skilled in the art.

The controller **40** may also include a dual polarity compatible output in the input/output circuitry **53** for a vehicle device, such as the vehicle alarm indicator **67**. The controller **40** may further monitor signals relating to activation of the vehicle alarm indicator **67** and send an alarm indication alert with position information from the vehicle position determining device and using the wireless communication device.

For the dual polarity output compatibility, the controller **40** may generate a first polarity output pulse followed by a second polarity output pulse. The controller **40** may also generate a repeating pattern of a first polarity output pulse followed by a second polarity output pulse on the dual polarity compatible output. In yet other embodiments, the controller **40** may sense an actual polarity of the device and thereafter use the actual polarity for the dual polarity compatible output.

Where the vehicle device is a vehicle horn, the controller **40** may typically be configured to generate a negative polarity output on the dual polarity compatible output. Conversely, wherein the vehicle device is a vehicle alarm indicator siren, the controller **40** may be configured to generate a positive polarity output on the dual polarity compatible output.

Another aspect of the vehicle tracking system **20** relates to conserving memory space and/or reducing transmission time over the communications network. In accordance with this advantageous feature, the controller **40** may determine the vehicle position information including a vehicle location and an associated stationary period for each occurrence of the vehicle remaining stationary for greater than a predetermined period. In one embodiment, the controller **40** may cooperate with the wireless transmission device **44** to send the vehicle position information to the monitoring station based upon each occurrence of the vehicle remaining stationary for greater than the predetermined period. In this embodiment, the monitoring station **30** may associate a time with each occurrence of the vehicle remaining stationary for greater

than the predetermined period. In other words, the monitoring station **30** may time stamp the received information.

In another embodiment, the controller **40** cooperates with the wireless transmission device **44** to send the vehicle position information to the monitoring station **30** for a plurality of occurrences of the vehicle remaining stationary for greater than the predetermined period. In this embodiment, the controller **40** may associate a time with each occurrence of the vehicle remaining stationary for greater than the predetermined period. In other words, the controller time stamps the position and stationary period information.

As an example, the predetermined time which determines whether the vehicle **21** is stationary and the position should be determined, may be less than about three minutes. This time may filter out vehicle stops in normal traffic, but which will keep track of stops where the driver likely leaves the vehicle **21**. Accordingly, only the important information necessary to track the vehicle need be stored and/or transmitted thereby reducing the system costs. If the vehicle **21** is stationary overnight, for example, unnecessary position information need not be determined, stored, and/or transmitted to the monitoring station **30**.

The controller **40** may comprise the memory **52** for storing the vehicle position information therein. In one configuration, the controller **40** downloads the vehicle position information from the memory **52** to the monitoring station **30** based upon a predetermined schedule. In another configuration, the controller **40** downloads the vehicle position information from the memory **52** to the monitoring station **30** based upon a predetermined event. In yet another configuration, the controller **40** downloads the vehicle position information from the memory **52** to the monitoring station **30** based upon a predetermined percentage of memory usage.

Having now described certain general features and advantages of the vehicle tracking system **20**, this description now turns to additional specific details which are provided as examples. In particular, vehicle tracking system **20** preferably implements one or more of the following features:

a. Detects the vehicle being stolen and transmits a signal to the monitoring station to contact up to 3 people, for example, predetermined by the user, of theft of the vehicle and then starts tracking the vehicle. The contact may be by one or more of the following: an e-mail message, a pager alert, a cellular telephone call, or other telephone call.

b. Detects an optional vehicle security or alarm system activation and transmits a signal to the monitoring station to contact up to 3 predetermined people to inform them the vehicle's alarm is being activated.

c. Detects an optional vehicle alarm system's remote PANIC activation and transmits a signal to the monitoring station to contact up to 3 predetermined people to inform them of the vehicle's PANIC being activated.

d. Detects a vehicle being programmed to operate from an unauthorized remote transmitter, key transponder, other transponder, or other device that has a unique coding, and the vehicle unit transmits a signal to the monitoring station to contact up to 3 predetermined people to inform them of this occurrence. The system can also make available information relating to a number of such coded devices, or a change therein, or when a change occurred. A message can be sent to the user or the information can be available to the user on the website. The vehicle would be equipped with a security system as disclosed in U.S. Pat. No. 5,654,688, for example, which determines an unauthorized transmitter and provides an alert feature. This patent is incorporated herein in its entirety by reference.

e. Detects the vehicle traveling over a predetermined speed, such as for a predetermined time, and transmits a signal to the monitoring station to send a message, such as an e-mail informing the user (and/or others) of this occurrence. Of course, the message could also be sent via a telephone call or page, should additional urgency be required. The vehicle's predetermined maximum speed limit and duration thereof can be selected by the user.

f. Detects a low battery voltage such as for a predetermined time and transmits a signal to the monitoring station to contact up to 3 predetermined people to inform them of vehicle's low battery voltage. This is especially advantageous during winter so that the vehicle could be started, for example, to prevent a problem before it happens. The time setting is preferably selectable by the user.

g. Detects the vehicle not moving for a predetermined time and transmits a signal to the monitoring station to send, for example, a nightly e-mail informing the user of all the vehicle's location and stationary time occurrences. The stationary time length is also selectable. This may be advantageous to encourage patrolling personnel not to remain for a long time in a same location.

h. The vehicle unit preferably includes a back-up battery system making it more reliable.

The vehicle unit may be relatively inexpensive. In addition, the monitoring fee that includes sending up to 60 e-mails and making up to 6 phone calls per month, may also be relatively low. The relatively low monitoring fee is based, at least in part, on the current relatively low rates charged for use of the control channel of the cellular telephone network. It is also noted that access to the control channel provides coverage for almost the entire U.S., for example.

The user or subscriber also preferably has access to an Internet site that will display a map and silently contact the vehicle to acquire its current location, speed, direction of travel, and previous multiple locations with speeds, for example, the user's personal identification number (PIN) can be quickly activated by a telephone call. No additional installation may be required.

Certain annual pre-pay package arrangements may be available. For example, up to 10 access entries per month can be provided on a low monthly billing. Up to 30 access entries could be provided also for a relatively low monthly fee.

The present invention provides a number of other significant advantages including optional access from any phone or from any computer to access the monitoring station internet site. The user may control various vehicle functions remotely via the telephone or the internet site. The only charge may be for additional equipment and installation.

Additional features can also be included with the system and subscribed to by the user in accordance with the invention. For example, these include Hijack, Car Finding, Unlock Doors and Unauthorized Transmitter Alert Features. The equipment and installation is relatively inexpensive. For the hijack feature: from any phone or computer, the user may activate vehicle starter interrupt and sound the horn until the vehicle is retrieved (Command 4).

For the Car Finding feature: from any phone or computer, the user may activate the vehicle's horn, or siren and sound same for 30 seconds. This allows the user to find his vehicle in a crowded parking lot (Command 5).

For the Lock/Unlock vehicle doors feature: from any phone or computer a predetermined command (Command 7)

activates unlocking of vehicle doors to retrieve keys, for example, that may have been accidentally locked inside the vehicle. Of course, the system can also be used to lock vehicle doors if this was forgotten (Command 6). The unauthorized transmitter alert feature is similarly selected as described above.

In addition, a remote vehicle start feature may also be provided, such as to start the vehicle's engine to heat or cool the vehicle prior to entry. The equipment and installation for remote starting may be relatively low. Some further details of a specific embodiment of the vehicle tracking unit **25** are provided below as relating to use of red and green LED indicators as may be coupled to the controller **40** and operated thereby. Also various representative wires, designated by color, are provided as an example embodiment.

The red LED verifies the GPS receiving signal. With a yellow wire having positive 12 volts, the red LED blinking indicates searching GPS location, constant indicates found location, and off indicates no GPS signal found. With the yellow wire not having positive 12 volts, if the red LED is off, the LED is not functioning.

The green LED verifies receiving the cell tower signal. With the yellow wire having positive 12 volts, blinking indicates the cell control channel signal is detected, constant indicates sending a micro burst signal (LED stays on 5 seconds after each transmission), and off indicates no cell tower signal received. With the yellow wire not having positive 12 volts, off indicates the green LED is not functioning.

An example of representative DIP switch feature selection is as follows. A first switch may be used for adding the orange wire for controlling arm/disarming of the system. When on, the orange wire controls arm/disarm as follows: to arm, the orange wire is grounded and the yellow wire does not have 12 volts positive. To disarm, the orange wire is not grounded. When the first switch is off, then only the yellow wire controls arm/disarm as follows: to arm, the yellow wire is without 12 volts positive, and 30 seconds after continued arm mode then the orange wire activates a constant 500 ma grounded output to operate an external starter interrupt relay until the system is disarmed. To disarm, the yellow wire is connected to 12 volts positive.

A main 5-pin plug may be provided on the vehicle unit and connected as follows:

a. The Red Wire is connected to the 12 vdc power. An alert warning "E" is given if the system is armed and the battery voltage becomes lower than 11 volts for longer than ## minutes. This alert feature "E" will not operate again until the voltage is above 12 volts to re-set this feature.

b. The black wire is connected to ground.

c. The yellow wire is connected to the ignition 12 volts so that if the key is on, 12 volts is supplied thereto and if the key is off, the yellow wire is connected to ground. Further: if the system is in an armed mode and the Lat/Long changes, then Alert "A" is given. If the system is disarmed and within 2.5 seconds after the yellow wire receives 12 volts and the gray wire detects 3 or more positive pulses the system activates Alert "D". If the first DIP switch is in the off position then: if 12 volts is on yellow wire, the system is disarmed and the orange wire discontinues from the 500 ma ground, and if the yellow wire sees ground or neutral, then the system is armed and 30 seconds after the continued arm mode the orange wire activates a constant 500 ma grounded output to operate an external starter interrupt relay until the system is disarmed.

d. The gray wire is for input and output, and can be connected to an alarm siren or horn positive terminal. In addition:

i. With the system armed and if the gray wire detects +12 v pulsing on/off or on constant for more than 10 seconds from an alarm siren or horn honking activation, then alert warning "T" alarm activation is given.

ii. With system disarmed and if the gray wire detects +12 v pulsing on/off or on constant for more than 10 seconds from an alarm siren or horn honking activation, then alert warning "C" panic activation is given.

iii. With system disarmed and if the Gray wire detects 3 or more 12 volt positive pulses within 2.5 seconds of yellow wire receiving +12 v and the gray wire by-pass not being activated, then alert warning "D" is given.

iv. The gray wire bypass operates as follows:

1. After alert warning "B" bypass all future alert "B" signals until system is disarmed.
2. After alert warning "C" bypass all future alert "C" signals until system is armed.
3. After alert warning "D" bypass all future alert "D" signals until no 12 volt pulses are detected on the gray wire within 3 seconds of the yellow wire having 12 volts.

v. With the system armed or disarmed. The Output: Internal +12 v, 1 amp transistor with pulses 1 second on and 1 seconds off to activate siren or honk car horn or flashing light relay.

1. Non-stop activation from (Command "4")
2. 30-second activation from (Command "5")

vi. Turn off the above alert "A" from (Command "1").

i. The orange wire is for the starter interrupt and arm/disarm system, and operates as follows:

i. If first DIP switch is in the:

1. On position and: the orange wire has 12 volts or neutral, the system switches to the disarmed mode; the orange wire is grounded, then the system is switched to the armed mode; and the starter interrupt output will not automatically operate. It can only be activated from "Command 4"
2. Off position and the orange wire does not effect the arming or disarming of the system; 30 seconds after system arms the orange wire will automatically activate constant 500 ma ground until the system is disarmed. And from "command #4". Connect to Starter interrupt relay output.

ii. Command 4 activates Orange wire to have 500 ma. negative until Command 1 is received.

iii. After alert warning "B" is activated the first time it is thereafter bypassed while the orange wire remains grounded. Alert warning "B" is re-set to operate again 3 seconds after orange wire becomes ungrounded.

The vehicle unit may also include a Door Lock Plug configured as follows, for example. A green wire provides a 250 ma, negative 1 second pulse for Lock Doors. (Command "6"). A red wire provides a constant 12 v output from the red power wire. A blue wire provides a 250 ma., negative 1 second pulse for Unlock Doors (Command "7"). A pink wire provides a 250 ma., negative 1 second pulse for remote Car Starter (Command "2").

An installation test button may also be provided to work as follows. Pressing the button activates the orange wire for 10-seconds (starter interrupt), with these circuits in sequence. First, it activates the gray wire for 1-second (siren/horn). After the first stops, it activates the green wire for 1 second to lock the doors. After the second stops, it activates the blue

wire for 1 second to unlock the doors. After the third stops, it activates the pink wire for 1 second to activate an optional item.

Representative warning alerts are as follows:

a. Alert Warning "A" (FIG. **4**): Automatic activation of "Command 8" and the vehicle unit contacts monitoring station to instantly call 3 phone numbers with the message "Your vehicle is stolen please confirm then call 911 to advise police of website and your pin # so police can locate the vehicle". This is detected with the system armed and the GPS indicating movement. Bypasses all future alert warning "A" signals until the system is re-armed.

b. Alert Warning "B" (FIGS. **5**A-**5**C): the vehicle unit contacts the monitoring station to instantly call 3 phone numbers with the following message "Vehicle alarm activated please confirm". This is with the system armed and detecting gray wire having 12 volts pulsing or on constant for longer than 10-seconds. After alert warning "B" is activated the first time, it is thereafter bypassed while the orange wire remains grounded. Alert warning "B" is re-set to operate again 3 seconds after orange wire becomes ungrounded.

c. Alert Warning "C" (FIG. **6**): the vehicle unit contacts the monitoring station to instantly send e-mail message "vehicle was traveling faster than your preset amount of "###" and time limit of "##" seconds. Indicates the vehicle speed and location that the speeding started and how long speeding accrued" (Detected from GPS). This aspect is further understood with reference to the enclosed flowchart **84** of FIG. **6**.

d. Alert Warning "D" (FIG. **7**): the vehicle unit contacts the monitoring station to instantly call 3 phone numbers with the message "Unauthorized remote transmitter was just programmed to operate your vehicle." This is with the system disarmed and the Gray wire detecting three or more 12 volt pulses within 2.5 seconds of the yellow wire having seen 12 volts positive. All future alerts "D" are bypassed until no 12 volt pulses are detected on the gray wire within 3 seconds of the yellow wire seeing 12 volts. This aspect is further understood with reference to the enclosed flowchart **85** of FIG. **7**.

e. Alert Warning "E" (FIG. **8**): the vehicle unit contacts the monitoring station to instantly call 3 phone numbers with the message "Vehicle has low battery voltage and system has changed to low voltage mode". This is with the system armed and detecting the red wire with lower than 11 volts for ## minutes. All future alerts "E" are bypassed until, first, more than 13.5 volts are detected on the red wire and, second, after the yellow wire stops having positive voltage the red wire then must detect more than 12 volts.

The following are representative commands for use in the system:

Command 1: Reset all circuits and system remains asleep until the ignition key is turned on. Resets the triggered mode and unit is asleep to prevent power drain on vehicle battery.

Command 2: (Accessory activation) monitoring station Command to the system to activate Pink wire to pulse 250 ma negative for 1 second.

Command 3: (Vehicle Location) website to indicate present location and past events in memory.

Command 4: (Hijack or Stolen) monitoring station Command to vehicle system to activate:

iv. Gray wire to pulse 1 sec on/1 sec off with 1 amp positive output and which continues until receive command # 1.

v. Orange wire to have 500 ma ground and which continues until receive command # 1.

Command 5: (Car Find) monitoring station Command to system activating Gray wire for 30 seconds pulsing 1 sec on/1 sec off with 1 amp positive output.

Command 6: (Lock Doors) monitoring station Command to system activating Green wire to pulse 1 second with 250 ma negative.

Command 7: (Unlock Doors) monitoring station Command to system to activate Blue wire to pulse 1 second with 250 ma negative.

Command 8: (Start Constant Vehicle Tracking) sends previous 2 events in memory and then every 120 seconds get update of location information sent to the Web site.

The system is also operable in a battery saver mode which operates as follows:

i. With the ignition key off, if the battery voltage drops below 11.5 volts for more than 5 seconds, the GPS verification wakes up to look:

ii. Once instantly.

iii. Once in 1 hour if at the same location.

iv. Once in 6 hours if at the same location.

v. Once in 12 hours if at the same location.

vi. Once every 24 hours if at the same location.

vii. Activate alert "E" when the battery saver mode is activated, and bypass sending all future Alert "E" until the battery voltage goes above 13 volts for 10 minutes to reset this feature.

Another aspect of the invention relates to automatic vehicle alert e-mails sent containing some or all of the previous system events. This sending can be triggered as follows:

a. At a user selected predetermined time ## (01-24) of each day, or

b. At a predetermined memory fill level, such as full or near full.

In addition, each system event may contain one or more of the following:

a. Vehicle Location

b. Vehicle total time at location

c. Time of day

d. Mph traveling

e. Total time traveling above MPH

f. Direction traveling

g. Delta

h. Special Alert messages, if any, including:

i. GPS signal not received for longer than 5 minutes.

ii) Traveling above ###MPH for ## minutes.

iii) Vehicle is stolen.

iv) Alarm activated.

v) Unauthorized remote transmitter alert.

vi) Battery saver mode activated

vii) Command 1: Reset all circuits and system remains asleep until the ignition key is turned on.

viii) Command 2: (Accessory activation)

ix) Command 3: (Vehicle Location was retrieved)

x) Command 4: (Hijack or Stolen mode activated)

xi) Command 5: (Car Find mode activated)

xii) Command 6: (Locked Doors)

xiii) Command 7: (Unlocked Doors)

xiv) Command 8: (Started 2-second incremental Vehicle Tracking)

Another feature of the invention relates to the selectable threshold conditions causing an event to be recorded into the memory of the vehicle unit. For example, this may include: while the yellow wire has 12 volts, record events every "??" default 15 minutes time if the GPS location has changed. If the GPS location is the same then only update stationary total

time. If the GPS antenna is not receiving any signal then enter last known GPS location and with an indication that this was the last known GPS location before the GPS signal stopped, how long no GPS signal was received, and the GPS location in the on-hold file, when the vehicle is traveling above ### MPH for ##-minutes.

The monitoring station may also provide a number of automated phone calls as described above. These may include:

The user's vehicle has issued a stolen alert:

If vehicle is stolen, after receiving the phone message the user then calls 911 to advise police of the theft, and gives the police the website address and an identification number, such as the user's PIN, to allow the police to locate where your vehicle has been, where it is now and keep tracking it until the police can retrieve the vehicle.

If this is a false alert due to vehicle being towed away for service, for example, then the user may press "1" to put the vehicle in an off mode. Once the ignition key is turned on again the system will reset back to its normal operation mode.

The user's vehicle has issued an alarm activated for more than 10 seconds alert. The system will not respond to this alert again until ignition key is turned on again to reset this feature.

The vehicle battery voltage is low or has been disconnected. The tracking system is in low voltage mode. The system will not respond to this alert again until the battery voltage goes above 13 volts for 10 minutes to reset this feature.

The backup battery may be sized according to the GPS receiver and processing power draw. In addition, the battery may also be sized based upon estimated micro burst transmitting power draw. Such transmissions are typically at about 3 watts power to the antenna.

The system according to the invention including the vehicle unit and monitoring station provides a number of significant advantages and features. For example, the police may be directly contacted by the user when the vehicle is stolen. The user receives the telephone message from the monitoring station, and this is done without requiring the intervention of a manual security monitoring operator, such as an ADT operator, for example. In addition, once in the stolen mode, the vehicle unit will periodically continue to send out its location, so that the police may track the vehicle via the WEB, for example. This location sending feature may begin immediately, that is, without requiring the user to contact the vehicle to begin tracking. Having the vehicle contacting the monitoring station is considerably less expensive than other schemes where the vehicle is periodically polled via the cellular network, for example.

The system may also be interfaced to a breath alcohol sensor at the vehicle, for example, and this information recorded in memory. The information could be passed along to the monitoring station, which, in turn, could send out a notification message (e-mail or telephone) that the vehicle is being operated by a driver who may be impaired by alcohol. The vehicle's location could then be tracked to permit the police to detain the driver.

Another aspect of the unit is that it may be able to recognize the desirability to bypass certain security breach triggers or other events. For example, a car finding feature can be provided that will allow the user to sound the horn or siren when near the vehicle to help locate the vehicle, as in a crowded parking area. Without the bypass feature, the unit could recognize the horn or siren as a security breach and transmit such information to the monitoring center. In accordance with this aspect of the invention, the unit would recognize the car finding feature was activated and thereby bypass sending a security breach transmission, for example. Again, false alarms and unneeded usage and expense of the communications infrastructure would be avoided.

Yet another aspect of the invention relates to thwarting a would-be thief who attempts to disable the alarm by cutting the battery cable or power supplied to the system. The unit preferably includes a back-up battery. More particularly, upon being in an armed mode and sensing a breach of security, such as the hood opening, for example, the unit will send out a signal indicating the alarm or security breach and while the alarm is indicated, if the battery is disconnected then the unit will send out a message indicating the vehicle is stolen, and also providing the vehicle's current position. Accordingly, the would-be thief is not able to defeat the security system by quickly disrupting power to the unit during an alarm indication or security breach. Also, to prevent additional alerts, this message is prevented from being transmitted again until the user returns to the vehicle to disarm the system and/or turn on the ignition so that the unit sees a voltage above 13 volts, indicating the vehicle has started using the owner's ignition key. This aspect is further understood with reference to the enclosed flowchart **80** (FIG. **4**).

Still another aspect of the invention relates to how the unit can discriminate between ordinary usage or honking of the horn as compared to a security system triggered alarm. Most vehicle security systems will provide a pattern of horn soundings as an alarm indication, and this can be determined and used to reduce false alarm transmissions from the unit. For example, the unit can look at the number of leading and trailing edges of the power pulse used to sound the horn. A single pressing of the horn switch by the user will cause two edges within a predetermined time, such as about 10 to 12 seconds. Accordingly, the unit can be configured to not send a security breach transmission to the control center based upon detecting two transitions. Since a number of vehicle security systems may have a continuous sounding of the horn within the predetermined time, the unit can send the transmission upon detecting only a single transition.

A number of other vehicle security systems provide a series of pulses or horn soundings within the predetermined time. Accordingly, the unit may also be configured to send a security breach transmission upon detecting greater than a predetermined number of transitions, such as greater than nine, for example. This number is also typically higher than a user would generate honking the horn several times within the predetermined time. In other terms, the number of transitions of the horn pulses can be counted, and if equal to one, or greater than nine, for example, the transmission is triggered, and otherwise the sounding of the horn is ignored. Also, to prevent additional alerts, this message is prevented from being transmitted again until the user returns to the vehicle to disarm the system and/or turn on the ignition so that the unit sees a voltage above 13 volts, indicating the vehicle has started using the owner's ignition key. This aspect is further understood with reference to the enclosed flowcharts **81-83** (FIGS. **5**A-**5**C).

Yet another feature of the invention relates to a low vehicle battery alert. For example, the unit may monitor the battery voltage over a predetermined time such as ten minutes. The ten minute window prevents false tripping, for example, when the voltage dips during engine cranking. In particular, the voltage can be sensed and it can be determined whether it is greater than zero (e.g. greater than six volts) and less than a high value (e.g. eleven or twelve volts), and, if so, a low battery voltage transmission can be communicated to the monitoring station, and ultimately to the vehicle user when away from the vehicle. If the vehicle is being serviced and the battery is disconnected, this will cause the battery voltage to

be equal to zero. Then, the low battery voltage transmission will not be communicated to the monitoring station. Also, to prevent additional alerts, this message is prevented from being transmitted again until the user returns to the vehicle to disarm the system and/or turn on the ignition so that the unit sees a voltage above 13 volts, indicating the vehicle has started using the owner's ignition key. Again, false triggerings are reduced. This aspect is further understood with reference to the enclosed flowchart **86** (FIG. **8**).

Yet another advantageous feature of some embodiments of the invention relates to the ability to conserve electrical power. More particularly, when the vehicle is stopped and in the armed mode, the GPS receiver may be periodically operated to determine the vehicle position. If the vehicle position changes, this is indicative that the vehicle is being moved or stolen. For example, the GPS receiver may be operated to generate new vehicle position information every 29 seconds. These relatively quick successive position determinations or readings are generally termed hot start. These are relatively less complicated than a cold start position determination which takes longer, since the cold start position determination requires greater time to acquire and receive data from multiple satellites, as will be appreciated by those skilled in the art.

Unfortunately, this relatively high repeated usage of the GPS receiver may cause unnecessary battery drain, especially when the vehicle is left armed and unattended by the user for an extended period. Accordingly, the power conserving feature of the invention permits the GPS receiver to be turned off when the vehicle is in the armed mode, and the GPS receiver is turned on only when needed. For example, a vehicle sensor, such as a shock sensor, motion sensor, ignition sensor, door sensor, or other sensor, or combinations thereof could be used to start the GPS receiver. This sensor could also be used to trigger an alarm if desired; however it need not be so used in all embodiments. The GPS receiver, once turned on, could operate in the normal periodic fashion as described above, or for a fixed period of time. The GPS receiver could also be turned off again after some predetermined time if no further sensor signal is received, or if the position fails to change on subsequent position readings or determinations.

Yet another feature relates to permitting more colorful audible alert messages to be generated for the user. The user can, in some embodiments, access an internet site to type or enter the text for a message to be sent, such as to alert the user that his vehicle is being stolen. The audible message then communicated by a telephone call to the user is generated by a speech message synthesizer based upon the entered text. In accordance with this aspect of the invention, the user could type in phonetically spelled words or phrases, such as to create more colorful messages including slang terms, various accents, and/or to mimic various dialects, for example. The speech synthesizer would then generate the desired message customized for the user. Of course, the system could also permit the user to test or preview the pronunciation generated by the speech message synthesizer based on the entered text message prior to its adoption.

Another aspect relates to requesting GPS position information from a vehicle. If a command is sent downstream to the vehicle requesting that GPS information in turn be sent upstream from the vehicle, and the GPS information is not received within a predetermined time, such as about four minutes, then another command may be sent to the vehicle requesting the GPS information. This may keep repeating until GPS information is received, for a predetermined number of tries, or until a user instructs stopping of the requests. This helps to ensure and confirm the activation and reception of GPS tracking coordinates from the vehicle.

Yet another aspect relates to reducing a frequency with which GPS information is sent from the vehicle. More particularly, the unit may be configured to activate GPS information transmission upstream every 2 minutes. To reduce system usage expense and power consumption at the vehicle, this rate of transmission of GPS information could be progressively decreased over time. For example, in one embodiment, upon activation the GPS location signals could be sent every 2 minutes during the first hour, then once an hour for the next 23 hours, after which only one signal would be sent per day.

Turning now to the flowchart **87** of FIG. **9**, still another aspect relates to warning the user of an inoperable or malfunctioning GPS or cellular telephone section. More particularly, if the GPS or cellular telephone antenna wire is cut or the mounting position of either is changed causing the antenna to stop receiving the signal the user would not ordinarily know of this problem quickly. In accordance with one embodiment, if the ignition is turned on a predetermined number of times, such as about three, and each time ignition turns on if no GPS or no cell signal is received for a minimum time, such as about 15 to 30 minutes or longer, an audible warning beeper may be activated in the vehicle. This beeper may be sounded once every 15-minutes. At anytime if the GPS or cell signal is received properly then the system re-sets automatically stopping the beeper sound.

As an example, if the ignition key is turned on and no GPS or no Cell signal is being received for 15-minutes, and the vehicle ignition stays on for 45-minutes and there is still no GPS or no cell signal, the unit counts one. Thereafter, if the ignition key is turned on and no GPS or no cell signal is being received for 15-minutes, and the vehicle ignition stays on for 60-minutes and there is still no GPS or no cell signal, a second count is determined. Thereafter, if the ignition is turned on and no GPS or no cell signal is received for 10-minutes, and the vehicle ignition stays on for only 10-minutes and there is still no GPS or no cell signal, no count is determined. Thereafter, if the ignition is turned on and no GPS or no cell signal is being received for 15-minutes, a third count is determined and the beeper is activated as described above. This beeping may continue every 15-minutes while the vehicle ignition stays on as long as the vehicle ignition stays on for 16-minutes and still no GPS or no Cell signal is being received. If thereafter, the ignition is turned on and no GPS or no cell signal is being received, the beeper beeps once and again beeps once every 15-minutes while vehicle ignition stays on. If in 10-minutes both GPS or cell signal is being received, the beeper system is turned off and the warning count is reset.

By way of example, if the ignition key is turned on and no GPS or no cell signal is being received for only 5, 10 or 12 minutes (with the threshold set at 15 minutes), then no count is determined.

In certain circumstances, the GPS signal may fail, but the cell signal may still be working. Accordingly, it may be desirable to send an indication of the failure of the GPS signal to the central monitoring station to thereby alert the user as described above. If the cell signal also failed, or if the cell signal failed by itself, in other embodiments a separate paging device would transmit the failure or loss of the cell signal information to the central monitoring station, to thereby alert the user.

Yet another feature is directed to efficient use of a relatively small number of codes available to communicate with the tracking unit from the cellular network and central station.

More particularly, a typical arrangement may provide eight basic codes and two Awildcard@ codes. The two wildcard codes are reserved for future or other uses. A particular tracking device will respond directly to any of the eight basic codes. For example, the doors could be locked or unlocked, a present location downloaded from the vehicle, etc.

In accordance with this feature, the tracking device may respond differently to the same code or command depending upon the state or condition of the tracking device. For example, if an alarm is triggered at the vehicle, it may be desired that the tracking device continue to send the alarm signal until confirmation is received that the central monitoring station has received the alarm signal. This confirmation can be sent using the same code as may provide another function if the device were not indicating an alarm. Any of a number of such tracking device conditions may trigger a different message to be interpreted from the received code. For example, if any of the above Alerts A-E were triggered, the receipt of a predetermined code, such as code eight, would confirm receipt of the alert by the central station, and this receipt of code eight would not cause the other response (no alarm triggered) in the tracking device. Of course this concept can be extended to other features as will be appreciated by those skilled in the art.

In accordance with another feature, the rate of sending the location or position data (or change in position data) from the vehicle may be varied to reduce system usage and thereby reduce expenses. More particularly, in one embodiment, the rate of sending may be based upon how long the vehicle has remained stationary. This time period may be selected by the user. For example, the selected time may be in the range of 15 minutes to six hours. If the vehicle has been stationary for the selected time period, then the rate of transmission may be reduced. This reduces or eliminates the need to send home position data and send all the over 15-minute stops made that day. Otherwise, that is when the vehicle is moving, the device may send data at a faster rate. Of course, a system user would not likely be interested in quick updates, especially where the position information is not changing. Conversely, if the vehicle is being moved, it may be desirable to receive more frequent position updates.

Another variation of this transmission rate conservation feature bases the rate of transmission on the vehicle position. For example, a reduced rate of transmission may be selected if the vehicle is in a predetermined area where the user has a lesser interest in quickly updated position information. The user may also have a reduced interest in an area that can be defined outside of a predetermined distance from a reference point.

Yet another variation of the vehicle position transmission rate conservation feature is based upon the vehicle's speed, such as the vehicle's average or maximum speed, for example. Accordingly, if the vehicle is traveling above a preset speed, the rate of transmission may be increased.

In accordance with another aspect of the invention, the tracking device may send the alert indication a predetermined number of times without receiving an acknowledgment as described above, and then wait until the vehicle position has changed before trying again or the cell re-registers or its RSS (received signal strength) changes. Thus, power is conserved. When the vehicle has moved to a new position, any obstructions may no longer be present thereby increasing the likelihood of a successful communication. In addition, the change in position may be determined when the vehicle is sensed to be moving about a predetermined relatively small speed, such as greater than 1 mph, for example.

In all of the embodiments and variations described herein, the tracking device may communicate with one or more other vehicle devices via a vehicle data communications bus. Further aspects of interfacing with a vehicle data communications bus are described in U.S. Pat. Nos. 5,719,551 and 6,011,460 assigned to the assignee of the present invention, the entire contents of which are incorporated herein by reference.

Yet another aspect relates to efficient use of available codes on the cellular telephone control channel. In one particular example, ten codes may be available to be transmitted from the monitoring station to the vehicle trackers. The first eight or nine codes are command codes that will cause a specific action by the tracking device at the vehicle. The other one or two codes may be wildcard codes as mentioned above, that may set a stand-by mode for one or a group of vehicles, for example.

It may be desirable to provide more than eight commands at the vehicle responsive to the corresponding eight available codes. For example, it may be desirable to set a feature on or off, or to set a different feature setting or threshold. In accordance with this aspect of the invention, the commands at the tracker are determined based upon a series of different command codes being received within a predetermined time window.

For example, the monitoring station may send code 9 that switches the tracker in the car into a stand-by mode for a predetermined time and which causes the tracker to respond with an upstream confirmation code 7 or 9 indicating receiving code 9. During the predetermined time of the stand-by mode another code follows that causes a system programmable feature or setting to change. Note that the second code would otherwise cause a different function at the vehicle. Note that system might operate a function 9 if another code 1-9 is not received in the predetermined time. The following list is exemplary for features resulting from second codes 1-9:

Code 1—Tracker will turn off feature of upstream code caused by vehicle alert being detected.

Code 2—Tracker will turn on feature of upstream code caused by vehicle alert being detected.

Code 3—Tracker deactivates cell receiver from operating due to a non-paying customer for monitoring service. That phone number can then be allocated to another customer.

Code 4—Turn on audio buzzer feature that will sound once each 10 minutes. The monitoring station need only send the command to activate the feature, as the tracker will time the period and drive the buzzer thereafter. The monitoring station will normally not need to send this command because the tracker will be configured out of the box with this feature activated to sound the buzzer every 10 minutes until the next command is received.

Code 5—Turn off the audio buzzer. This is to be sent by the monitoring station after a user has successfully activated his account.

Code 6—Turn on the 80 mph speed limit reporting. This will normally not be sent as this feature will be the default setting of the tracker.

Code 7—a Turn off the 80 mph speed limit reporting.

Code 8—Increase speed limit 5 mph and increase the time 5 minutes.

Code 9—Decrease speed limit 5 mph and decrease the time 5 minutes, and wait 5 minutes if another code number follows. It could operate this way to allow another set of codes to change more features.

In this example, in response to the tracker receiving the system code 1-9, the tracker sends an upstream code 7 to acknowledge receipt of the system code 1-9. Upon receipt of code 9 the tracker waits up to 5 minutes to determine if

another system code is received. If no code is received, then the tracker performs the code 9 operation. Of course, in other embodiments other features or settings can be selected. In general, it may be preferred that the first code sent in a series of two codes, for example, be a code that causes only a minor function to be performed at the vehicle. This is so because if the second code is sent from the monitoring station, but not received at the tracker, only a minor function is performed. For example, the first code may switch between armed and disarmed modes. This is in contrast to using a remote engine starting code or engine shutdown code as the first code. The vehicle may be moving or positioned in a marginal reception area, and the second command may not be received by the tracker within the predetermined time window. As will be appreciated by those skilled in the art, this concept of multiple digit codes, can be extended beyond two digits to three or more.

To further conserve cellular transmissions and as described above, the tracker may be set to record a position based upon a determined event. Only this recorded position information may be downloaded either by user request or at set times. It is desired that such events be relatively few, but that the information still be helpful to the user.

For example, an event for recording of position may be determined based upon the vehicle being stopped for greater than a first time and less than a second time. For example, the first time may be 15 minutes and the second time may be 6 hours. Determination of the vehicle being stopped can be made based upon one or both of the GPS position or the vehicle ignition being turned off. The second time prevents the recording of position information when the vehicle is stopped at the owner's home during the evening, for example. Accordingly, the important information of the vehicle stops being made is recorded and made available to the user, while system communications resources are conserved.

In another example, if the mode is selected to send the vehicle's location every 10 min and the vehicle is in the same location for greater than a set time, then no more vehicle locations are sent until the vehicle location has changed to start the every 10 min reporting again.

Now referring to FIGS. **10** and **11**, in yet another embodiment the potential difficulties of interfacing to a vehicle data bus and devices connected thereto are further discussed. The multi-vehicle compatible tracking unit **110** is for a vehicle comprising a vehicle data bus **122** extending throughout the vehicle. The multi-vehicle compatible tracking unit **110** includes a vehicle position determining device **112**, a wireless communications device **113**, and a multi-vehicle compatible controller **111** for cooperating with the vehicle position determining device and the wireless communications device to send vehicle position information. The vehicle position determining device **112** may be provided by a GPS receiver, for example, or any of the other such devices described in detail above.

The wireless communications device **113** may be provided by a cellular telephone transceiver configured to operate on a control channel of the cellular network, or any of the other such devices described in detail above.

The multi-vehicle compatible controller **111** is coupled to the vehicle data bus **122** for communication thereover with a vehicle device **121**. The controller **111** illustratively includes a central processing unit (CPU) **126** or other logic circuitry which is connected to a clock signal generator **124**, a memory **125**, and input/output circuitry **127** to interface with the vehicle device **121** using at least one corresponding vehicle device code from among a plurality thereof for different vehicles. The corresponding vehicle code may be for reading from the vehicle device **121**. Similarly, the corresponding vehicle code may be additionally or alternatively for writing to the vehicle device **121**.

The multi-vehicle compatible tracking unit **110** also illustratively includes a downloading interface **116** for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller **111**. The enabling data may be the vehicle device code or codes, an instruction to select a code or codes from among those already stored, or the data or sequence to allow the controller **111** to generate the vehicle device code or codes, for example.

In the embodiment as shown in FIG. **11**, the downloading interface **116** is a category of wireless signal downloading interfaces that illustratively include a wireless receiver **114**, such as for temporary connection to the downloading device **115**. The wireless downloading interface **116** may communicate with the downloading device **115** via any one or more of a number of wireless technologies, such as cellular, satellite, IR, Bluetooth or WiFi technologies for example, as will also be appreciated by those skilled in the art. Interface circuitry **132** is included in the wireless signal downloading interface **116** for controlling communication with the downloading device **115**. The interface circuitry **132** may be logic circuitry or other control circuitry along with switching components.

In other embodiments, for example as shown in FIG. **12**, the wireless downloading interface **116'** does not include the wireless receiver **114**, as a temporary wireless communication link is instead provided by sharing the wireless communications device **113** that sends position data as described above.

The downloading interface may also be in the form of a wired signal downloading interface **116"** as shown in FIG. **13**. The wired signal downloading interface **116"** comprises a connector **133***a* for temporary connection to a downloading device **115"** with a mating connector **133***b*. Interface circuitry **132"** is provided for controlling communication with the downloading device **115"**. The wired downloading interface **116"** may connect directly to a downloading device **115"**, such as a laptop computer, via RS232/429 protocol, USB, FireWire, TCP/IP (Internet), or any other wired protocol as will be appreciated by those skilled in the art. The connector **133***a* of the wired downloading interface **116"** may alternatively be in the form of a socket to accept a memory card or other data storage medium capable of transferring data. The downloading interfaces **116**, **116'** and **116"**, may also advantageously be for permitting downloading of programming instructions for the multi-vehicle compatible controller **111**, to allow remote programming, for example, as will also be appreciated by those skilled in the art.

Referring again briefly to FIG. **10**, the multi-vehicle compatible tracking unit **110** further comprises a remote transmitter **117**, such as typically in the form of a small handheld device to be carried by a user when away from the vehicle. The multi-vehicle compatible controller **111** also performs at least one vehicle remote control function responsive to the remote transmitter **117**. The remote transmitter **117** illustratively communicates with the remote receiver **118**, which is coupled to the multi-vehicle compatible controller **111**. The vehicle remote control functions may include a vehicle security function, a remote keyless entry function, and a remote engine starting function, for example, implemented via the data bus **122** using one or more vehicle devices **121**. Such a vehicle device **121** may also include another vehicle controller, as well as a sensor, or actuator as will be appreciated by those skilled in the art.

The multi-vehicle compatible tracking unit **110** illustratively includes a common housing **123** for its various components. In other embodiments, more than one housing may be used for the various components.

Referring additionally to FIGS. **14** and **15**, several methods for using a multi-vehicle compatible tracking unit **110** for a vehicle comprising a vehicle data bus **122** extending throughout the vehicle are described with reference to the respective flowcharts **148**, **148'**. Beginning at Block **150**, the multi-vehicle compatible tracking unit **110** is installed in vehicle (Block **151**). At Block **152** a connection is then established between the multi-vehicle compatible tracking unit **110** and a downloading device **115** using a downloading interface **116**. Enabling data related to at least one corresponding vehicle device code for use by the multi-vehicle compatible controller **111** is downloaded via a downloading interface **116** (Block **153**). Once the enabling data is downloaded, the connection between the multi-vehicle tracking unit **110** and the downloading device **115** is terminated at Block **154**. Of course the multi-vehicle compatible tracking unit **110** may be optionally programmed via the downloading interface while the connection is established. The operation of the tracking unit may be tested at Block **155** before stopping at Block **156**. With particular reference to the flowchart **148'** of FIG. **15**, the multi-vehicle compatible tracking unit **110** may be connected to the downloading device **115** (Block **152'**), etc., before installation in the vehicle (Block **151'**) and testing (Block **155'**).

Other features relating to vehicle control systems are disclosed in copending patent applications entitled VEHICLE TRACKER INCLUDING STATIONARY TIME DETERMINATION AND ASSOCIATED METHODS, Ser. No. 09/859,727 filed May 17, 2001, now U.S. Pat. No. 6,512,465; VEHICLE TRACKER CONSERVING CODES AND RELATED METHODS, Ser. No. 09/859,673 filed May 17, 2001, now U.S. Pat. No. 6,522,267; VEHICLE TRACKER WITH POWER SAVING FEATURES AND RELATED METHODS, Ser. No. 09/859,728 filed May 17, 2001, now U.S. Pat. No. 6,512,466; VEHICLE TRACKER COOPERATING WITH A STARTER INTERRUPT AND RELATED METHODS, Ser. No. 09/859,973 filed May 17, 2001; VEHICLE TRACKER WITH USER NOTIFICATIONS AND ASSOCIATED METHODS, Ser. No. 09/859,733 filed May 17, 2001, now U.S. Pat. No. 6,509,868; VEHICLE TRACKER WITH USER REGISTRATION REMINDER AND RELATED METHODS, Ser. No. 09/859,971 filed May 17, 2001, now U.S. Pat. No. 6,507,786; VEHICLE TRACKER INCLUDING INPUT/OUTPUT FEATURES AND RELATED METHODS, Ser. No. 09/859,972 filed May 17, 2001, now U.S. Pat. No. 6,606,561; and VEHICLE TRACKER WITH TEST FEATURES AND RELATED METHODS, Ser. No. 09/859,729 filed May 17, 2001, now U.S. Pat. No. 6,809,659, the entire disclosures of which are incorporated herein by reference.

Many modifications and other embodiments of the invention will come to the mind of one skilled in the art having the benefit of the teachings presented in the foregoing descriptions and the associated drawings. Accordingly, it is understood that the invention is not to be limited to the embodiments disclosed, and that other modifications and embodiments are intended to be included within the spirit and scope of the appended claims.

That which is claimed is:

1. A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

2. The multi-vehicle compatible tracking unit according to claim **1** wherein said downloading interface comprises a wired signal downloading interface.

3. The multi-vehicle compatible tracking unit according to claim **2** wherein said wired signal downloading interface comprises a connector for temporary connection to a downloading device.

4. The multi-vehicle compatible tracking unit according to claim **1** wherein said downloading interface comprises a wireless signal downloading interface.

5. The multi-vehicle compatible tracking unit according to claim **4** wherein said wireless signal downloading interface comprises a wireless receiver for temporary connection to a downloading device.

6. The multi-vehicle compatible tracking unit according to claim **1** wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

7. The multi-vehicle compatible tracking unit according to claim **1** wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

8. The multi-vehicle compatible tracking unit according to claim **1** wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

9. The multi-vehicle compatible tracking unit according to claim **1** further comprising a remote transmitter; and wherein said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter.

10. The multi-vehicle compatible tracking unit according to claim **9** wherein the at least one vehicle remote control function comprises at least one of a vehicle security function, a remote keyless entry function, and a remote engine starting function.

11. The multi-vehicle compatible tracking unit according to claim **1** wherein said wireless position determining device comprises a Global Positioning System (GPS) receiver.

12. The multi-vehicle compatible tracking unit according to claim **1** further comprising a housing containing said vehicle position determining device, said wireless communications device, said multi-vehicle compatible controller, and said downloading interface.

13. A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller;

said downloading interface comprising a connector for temporary connection to a downloading device.

14. The multi-vehicle compatible tracking unit according to claim **13** wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

15. The multi-vehicle compatible tracking unit according to claim **13** wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

16. The multi-vehicle compatible tracking unit according to claim **13** wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

17. The multi-vehicle compatible tracking unit according to claim **13** further comprising a remote transmitter; and wherein said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter.

18. A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising:

a vehicle position determining device;

a wireless communications device;

a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller;

said downloading interface comprising a wireless receiver for temporary connection to a downloading device.

19. The multi-vehicle compatible tracking unit according to claim **18** wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.

20. The multi-vehicle compatible tracking unit according to claim **18** wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.

21. The multi-vehicle compatible tracking unit according to claim **18** wherein said downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.

22. The multi-vehicle compatible tracking unit according to claim **18** further comprising a remote transmitter; and wherein said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter.

* * * * *

US006611740B2

(12) **United States Patent**
Lowrey et al.

(10) **Patent No.: US 6,611,740 B2**
(45) **Date of Patent: Aug. 26, 2003**

(54) **INTERNET-BASED VEHICLE-DIAGNOSTIC SYSTEM**

(75) Inventors: **Larkin Hill Lowrey**, La Jolla, CA (US); **Matthew J. Banet**, Del Mar, CA (US); **Bruce Lightner**, La Jolla, CA (US); **Diego Borrego**, San Diego, CA (US); **Chuck Myers**, La Jolla, CA (US); **Wade Williams**, San Diego, CA (US)

(73) Assignee: **NetworkCar**, San Diego, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/808,690**

(22) Filed: **Mar. 14, 2001**

(65) **Prior Publication Data**

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(51) **Int. Cl.**[7] **G01M 17/00**; G06F 7/00; G06F 17/00; G06F 19/00

(52) **U.S. Cl.** **701/29**; 709/200; 709/260; 702/182; 702/183; 707/1; 707/102; 379/1.01; 379/219

(58) **Field of Search** 701/35, 29, 115, 701/33, 32, 102, 114; 709/200, 207, 240; 340/439, 438, 459; 700/29; 123/436; 702/187, 184, 185, 183, 182; 707/203, 1, 100, 102; 379/1.01, 219; 370/313, 401, 328; 455/457, 404, 563

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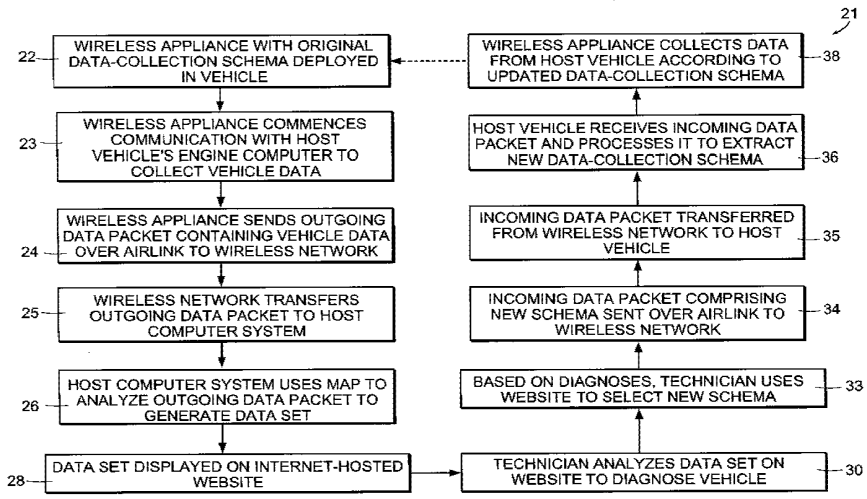
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Primary Examiner—Thomas G. Black
Assistant Examiner—Ronnie Mancho
(74) *Attorney, Agent, or Firm*—Hale and Dorr LLP

(57) **ABSTRACT**

The invention provides a system for monitoring a vehicle that includes a wireless appliance in electrical contact with an in-vehicle computer. The wireless appliance features: 1) a data-collection component that supports communication software that collects diagnostic data from the computer; and 2) a data-transmission component, in electrical communication with the data-collection electronics, configured to transmit an outgoing data packet comprising the diagnostic data over a network and receive over the same network an incoming data packet that modifies the communication software. The wireless appliance communicates with a host computer system that is configured to: 1) receive the outgoing data packet from the network; 2) process the outgoing data packet to generate a set of vehicle diagnostic data; 3) host a web site on the Internet that displays the vehicle diagnostic data; and 4) send out the incoming data packet over the same network to modify the communication software.

33 Claims, 11 Drawing Sheets



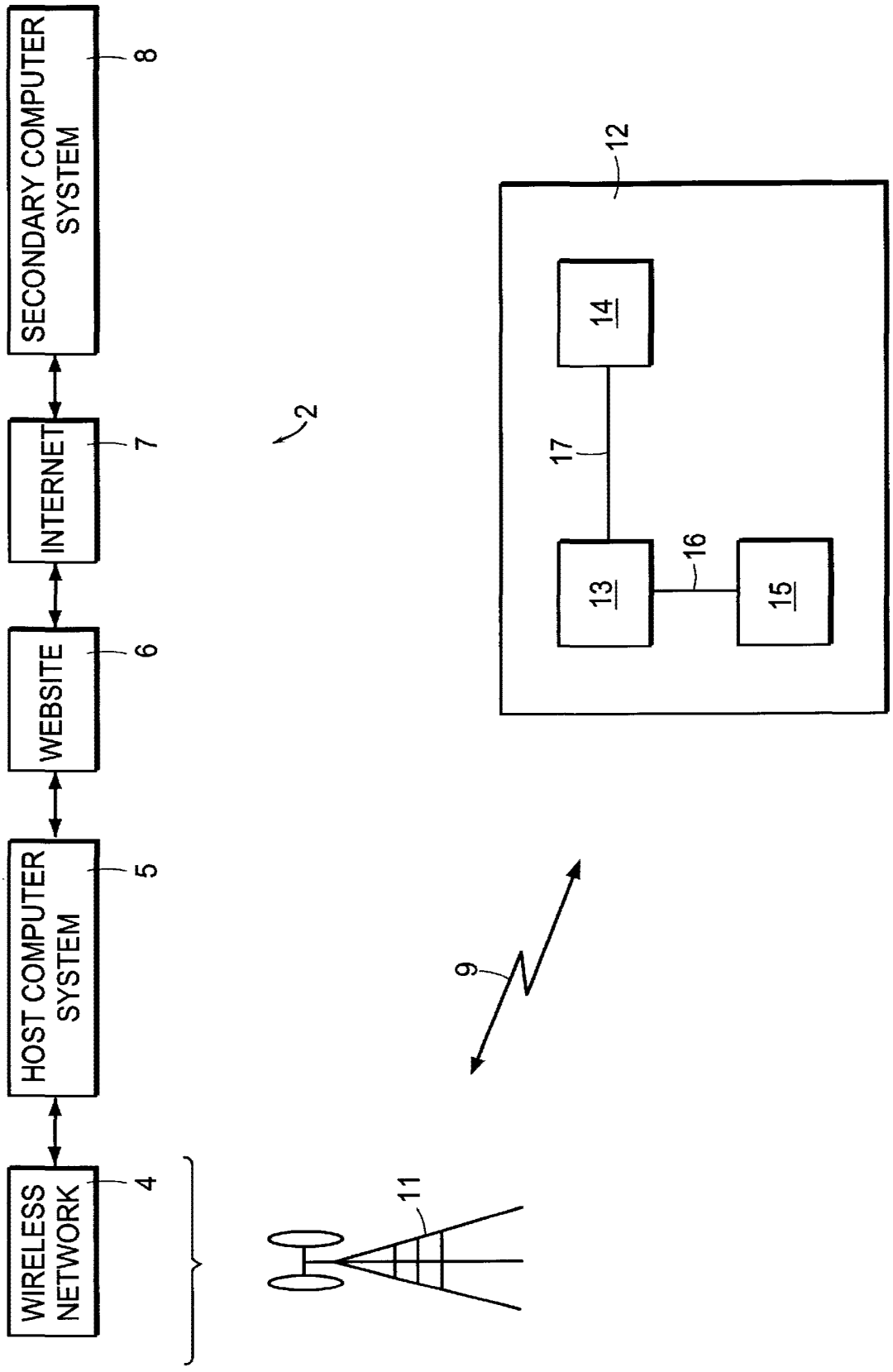

SECONDARY COMPUTER SYSTEM
8
INTERNET
7
WEBSITE
6
HOST COMPUTER SYSTEM
5
WIRELESS NETWORK
4
2
9
11
12
14
17
16
13
15

FIG. 1

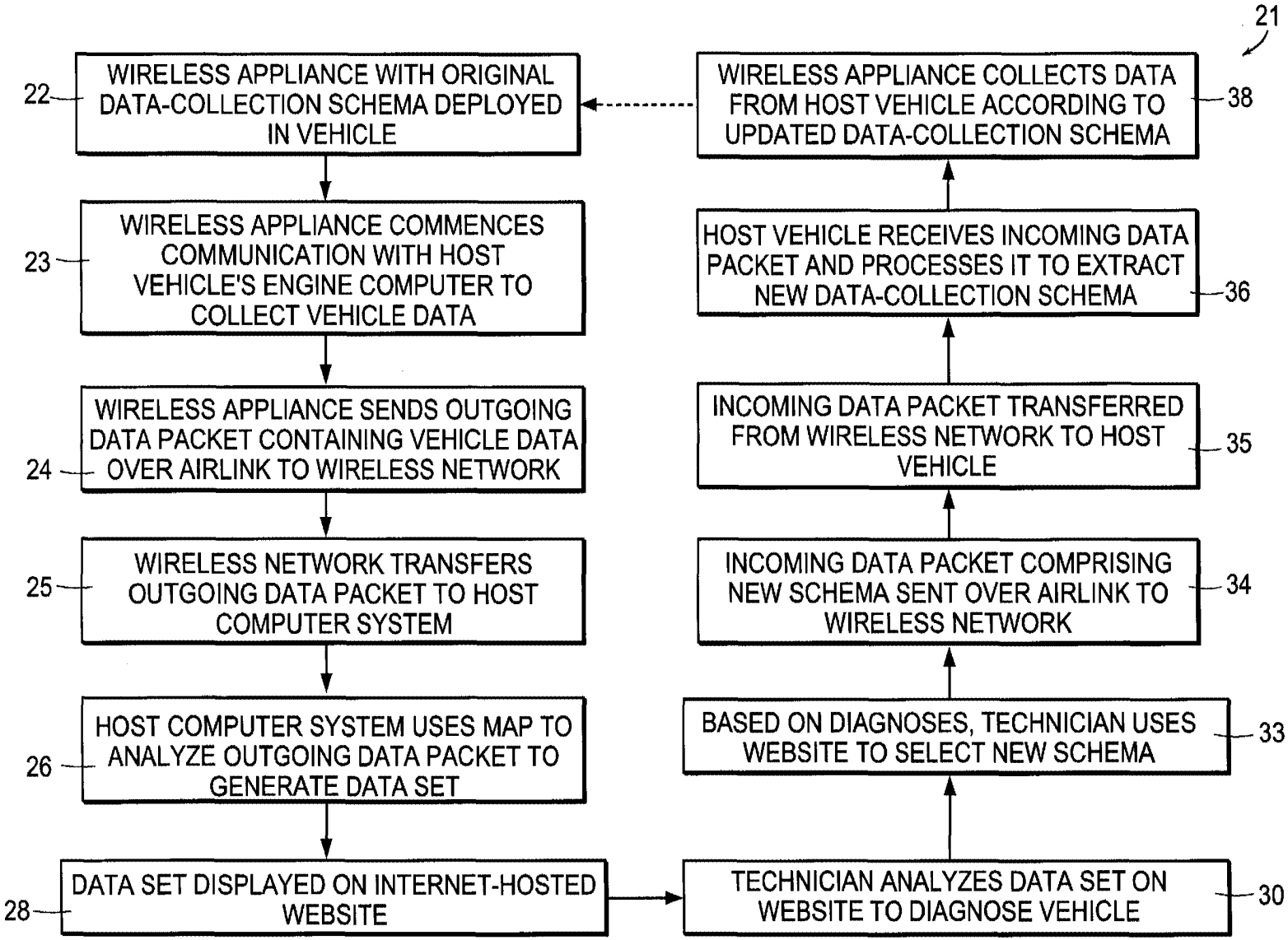

21
22
WIRELESS APPLIANCE WITH ORIGINAL DATA-COLLECTION SCHEMA DEPLOYED IN VEHICLE
23
WIRELESS APPLIANCE COMMENCES COMMUNICATION WITH HOST VEHICLE'S ENGINE COMPUTER TO COLLECT VEHICLE DATA
24
WIRELESS APPLIANCE SENDS OUTGOING DATA PACKET CONTAINING VEHICLE DATA OVER AIRLINK TO WIRELESS NETWORK
25
WIRELESS NETWORK TRANSFERS OUTGOING DATA PACKET TO HOST COMPUTER SYSTEM
26
HOST COMPUTER SYSTEM USES MAP TO ANALYZE OUTGOING DATA PACKET TO GENERATE DATA SET
28
DATA SET DISPLAYED ON INTERNET-HOSTED WEBSITE
30
TECHNICIAN ANALYZES DATA SET ON WEBSITE TO DIAGNOSE VEHICLE
33
BASED ON DIAGNOSES, TECHNICIAN USES WEBSITE TO SELECT NEW SCHEMA
34
INCOMING DATA PACKET COMPRISING NEW SCHEMA SENT OVER AIRLINK TO WIRELESS NETWORK
35
INCOMING DATA PACKET TRANSFERRED FROM WIRELESS NETWORK TO HOST VEHICLE
36
HOST VEHICLE RECEIVES INCOMING DATA PACKET AND PROCESSES IT TO EXTRACT NEW DATA-COLLECTION SCHEMA
38
WIRELESS APPLIANCE COLLECTS DATA FROM HOST VEHICLE ACCORDING TO UPDATED DATA-COLLECTION SCHEMA

FIG. 2

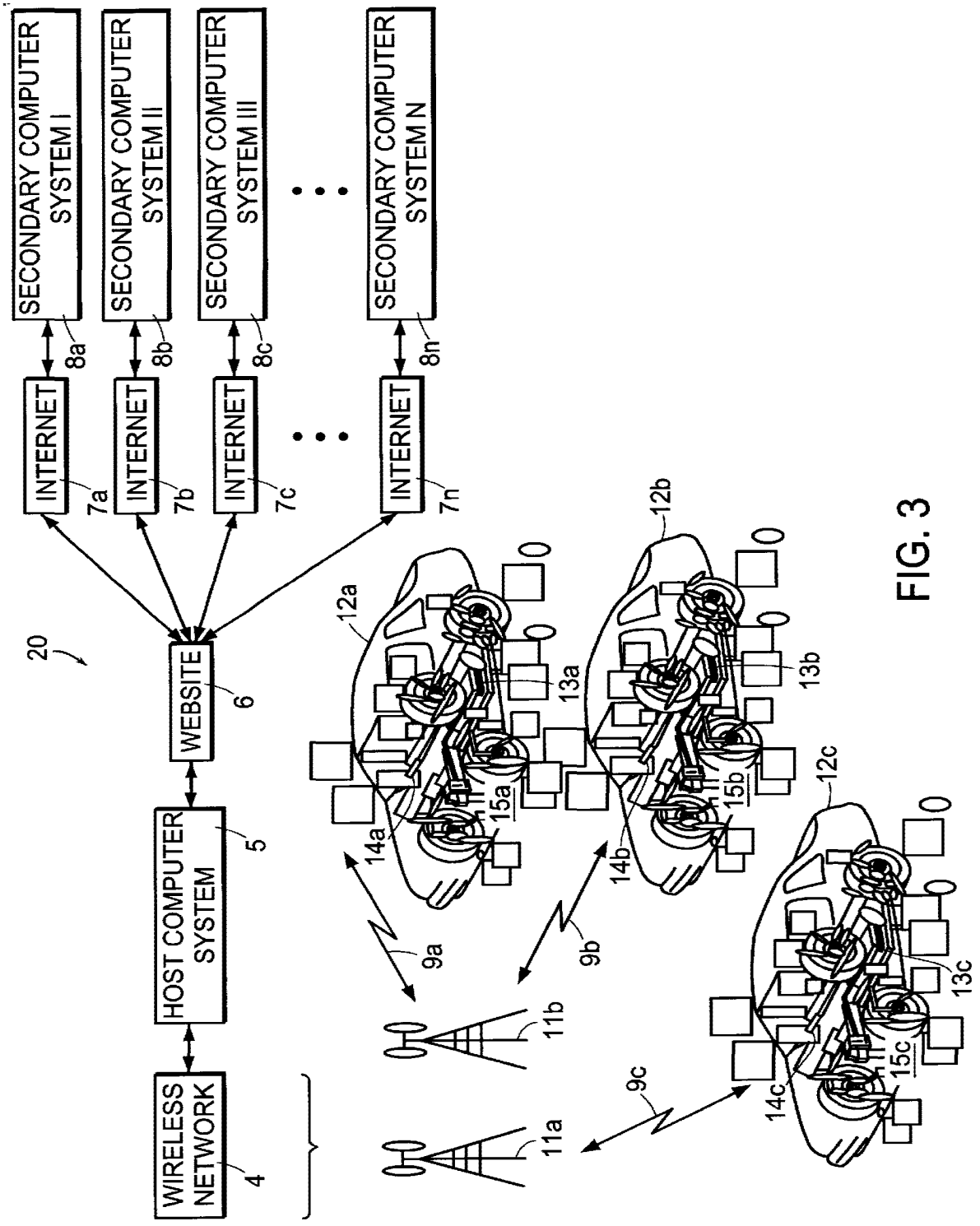


FIG. 3

Ex. 1009 - Page 858

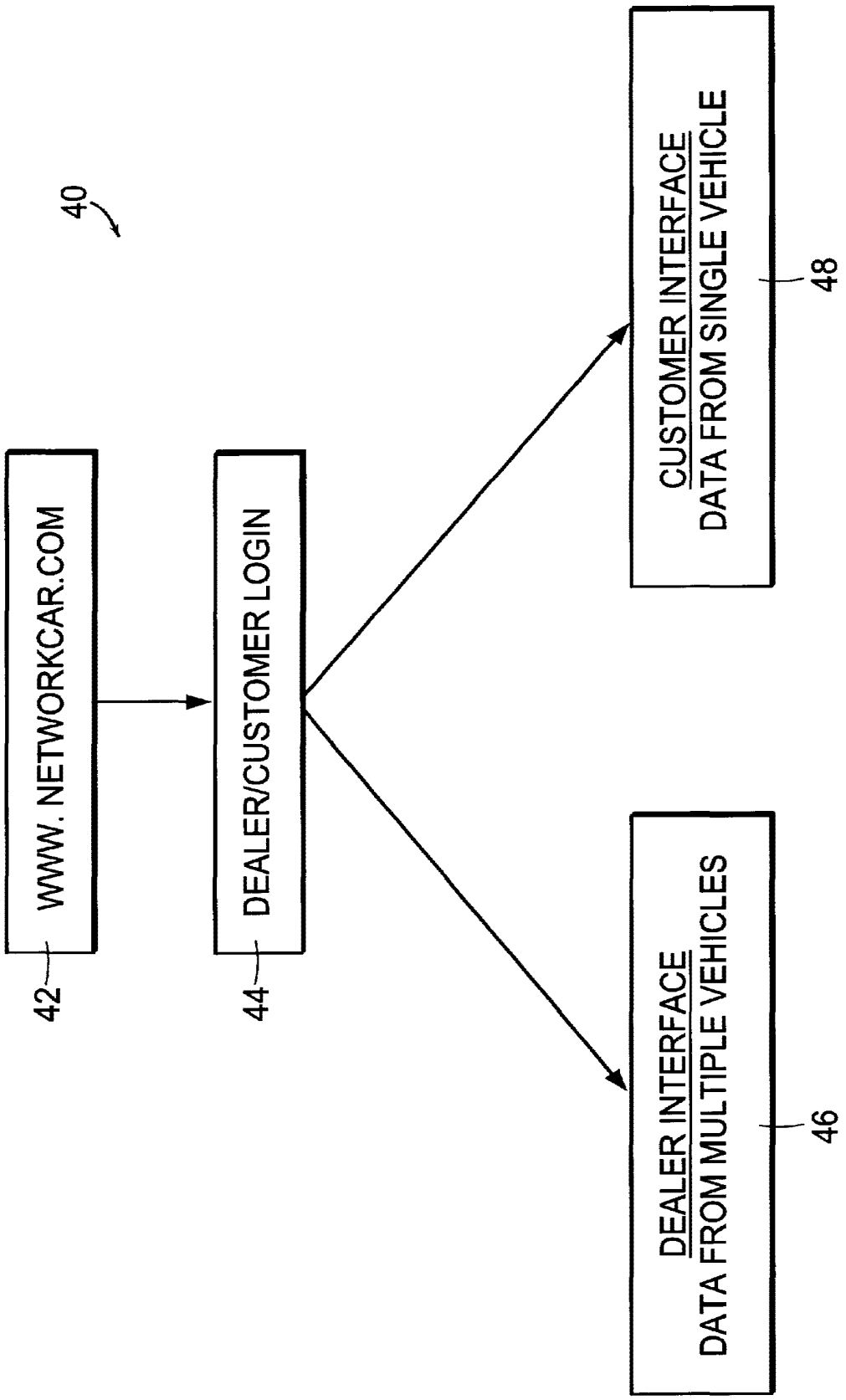

40
WWW. NETWORKCAR.COM
42
DEALER/CUSTOMER LOGIN
44
CUSTOMER INTERFACE
DATA FROM SINGLE VEHICLE
48
DEALER INTERFACE
DATA FROM MULTIPLE VEHICLES
46

FIG. 4

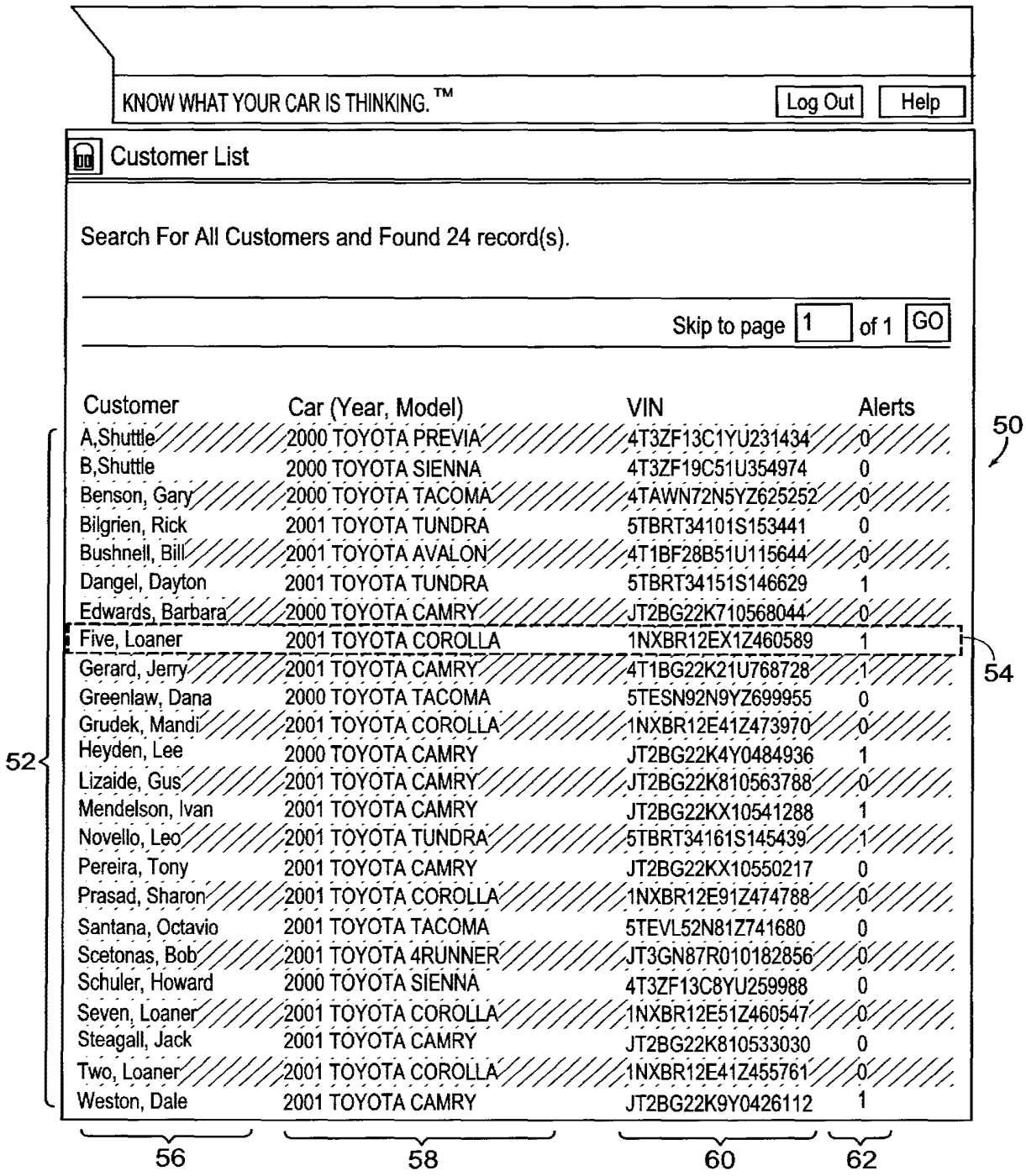

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Help
Customer List
Search For All Customers and Found 24 record(s).
Skip to page 1 of 1 GO
Customer | Car (Year, Model) | VIN | Alerts
A,Shuttle | 2000 TOYOTA PREVIA | 4T3ZF13C1YU231434 | 0
B,Shuttle | 2000 TOYOTA SIENNA | 4T3ZF19C51U354974 | 0
Benson, Gary | 2000 TOYOTA TACOMA | 4TAWN72N5YZ625252 | 0
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Weston, Dale | 2001 TOYOTA CAMRY | JT2BG22K9Y0426112 | 1
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FIG. 5

FIG. 6A
FIG. 6B
FIG. 6C

FIG. 6

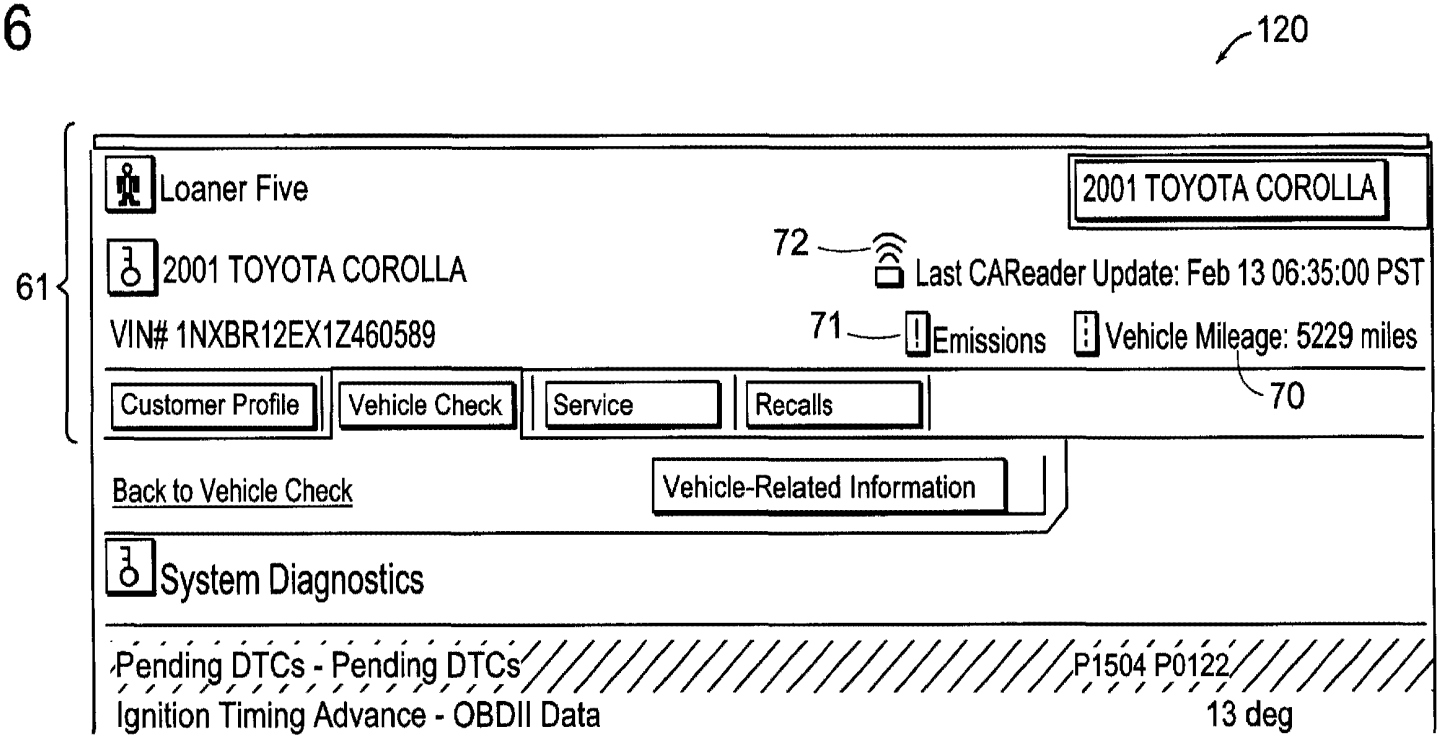


FIG. 6A

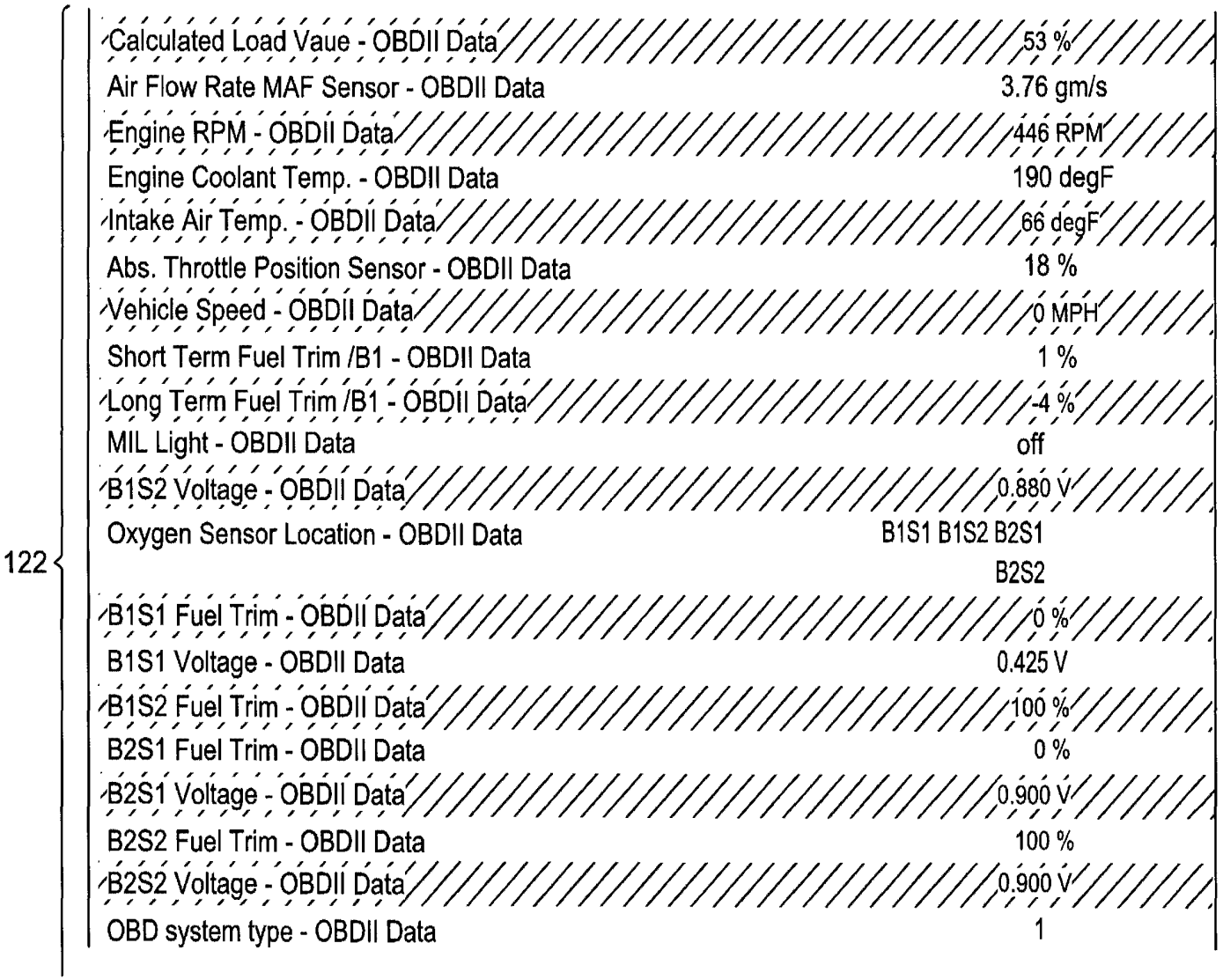

122
Calculated Load Vaue - OBDII Data 53 %
Air Flow Rate MAF Sensor - OBDII Data 3.76 gm/s
Engine RPM - OBDII Data 446 RPM
Engine Coolant Temp. - OBDII Data 190 degF
Intake Air Temp. - OBDII Data 66 degF
Abs. Throttle Position Sensor - OBDII Data 18 %
Vehicle Speed - OBDII Data 0 MPH
Short Term Fuel Trim /B1 - OBDII Data 1 %
Long Term Fuel Trim /B1 - OBDII Data -4 %
MIL Light - OBDII Data off
B1S2 Voltage - OBDII Data 0.880 V
Oxygen Sensor Location - OBDII Data B1S1 B1S2 B2S1 B2S2
B1S1 Fuel Trim - OBDII Data 0 %
B1S1 Voltage - OBDII Data 0.425 V
B1S2 Fuel Trim - OBDII Data 100 %
B2S1 Fuel Trim - OBDII Data 0 %
B2S1 Voltage - OBDII Data 0.900 V
B2S2 Fuel Trim - OBDII Data 100 %
B2S2 Voltage - OBDII Data 0.900 V
OBD system type - OBDII Data 1

FIG. 6B

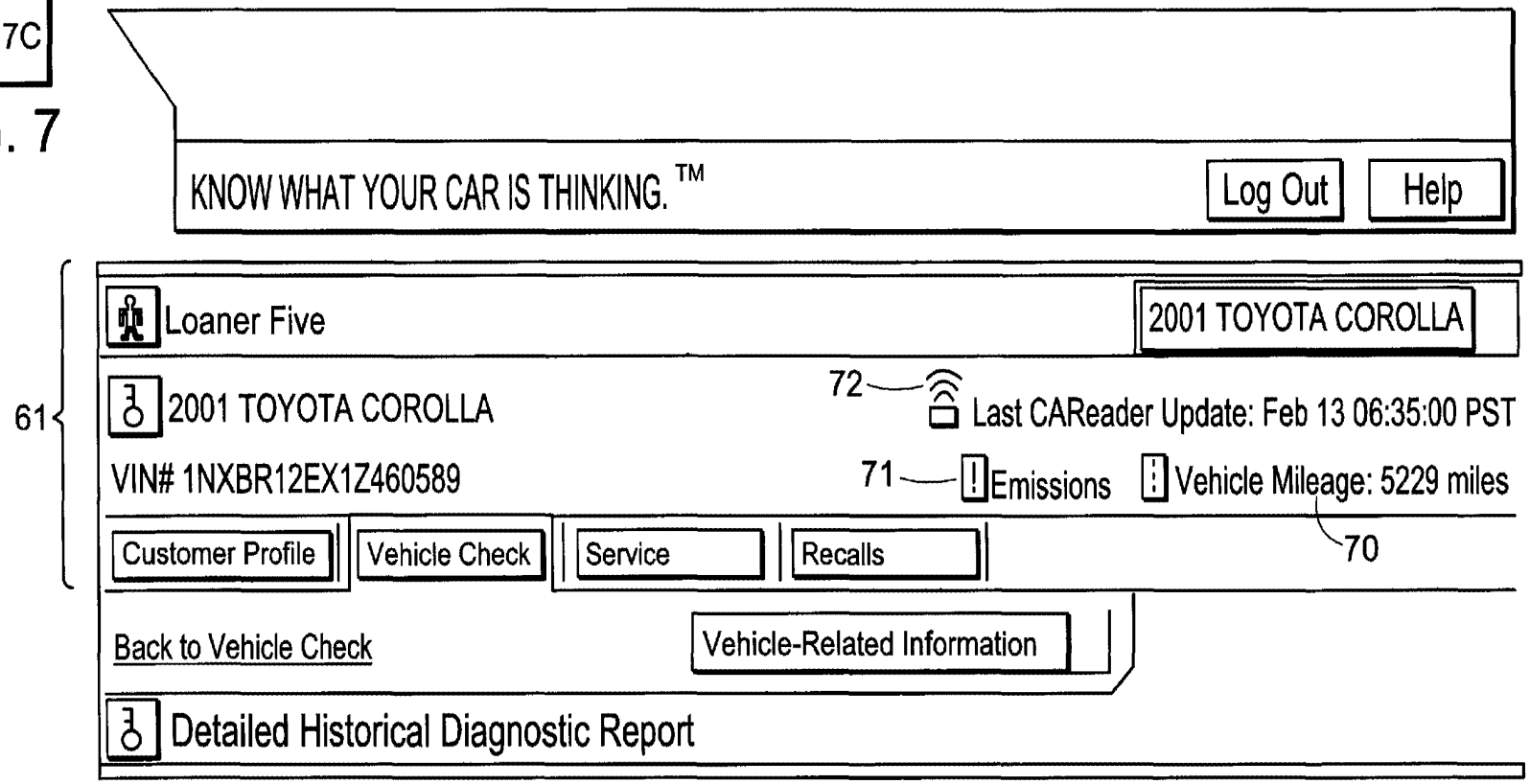
EGR dutycycle to EVR - Ford Specific Data	0.00 %
Delta Pressure Feedback EGR pressure sensor - Ford Specific Data	1.015 V
Evaporative Purge Solenoid dutycycle - Ford Specific Data	19.33 %
Fuel Level Input Sensor - Ford Specific Data	95.77 %
Fuel Tank Pressure Voltage, no FMEM - Ford Specific Data	2.626 V
EGR DPFE sensor input at the time of misfire - Ford Specific Data	1.518 V
Intake air temperature at the time of misfire - Ford Specific Data	72 deg
Engine load at the time of misfire - Ford Specific Data	26.67 %
1=In drive during the time of misfire - Ford Specific Data	on
Engine running time at the time of misfire - Ford Specific Data	78 sec
Engine rpm at the time of misfire - Ford Specific Data	1469.3 RPM
Engine-off soak time at the time of misfire - Ford Specific Data	175.5 min
Throttle position at the time of misfire - Ford Specific Data	1.142 V
Vehicle speed at the time of misfire - Ford Specific Data	11.5 MPH
1=MIL requested to be on - Ford Specific Data	off
Low word of cumulative # of misfires - Ford Specific Data	2
1=Currently misfiring - Ford Specific Data	off
Transmission Fluid Temperature, no FMEM - Ford Specific Data	134.2 degF
PRNDL position (1,2,3,4,5=neutral, 6=reverse, 7=park) - Ford Specific	P

125 127 129

FIG. 6C

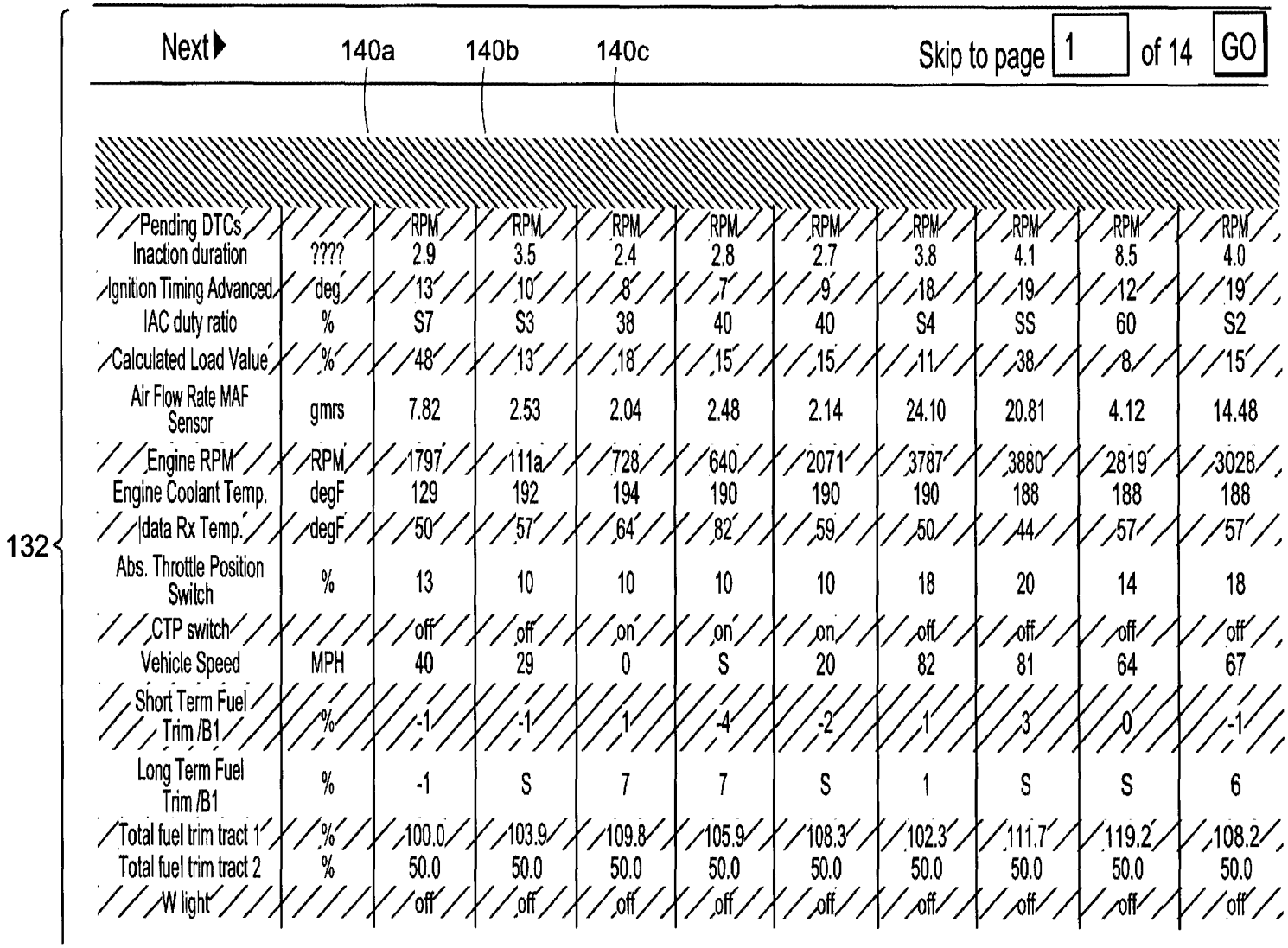
FIG. 7A
FIG. 7B
FIG. 7C

FIG. 7



Found 124 entries with information on your vehicle's performance.

FIG. 7A



Pending DTCs		RPM	RPM	RPM	RPM	RPM	RPM	RPM	RPM	RPM
Inaction duration	????	2.9	3.5	2.4	2.8	2.7	3.8	4.1	8.5	4.0
Ignition Timing Advanced	deg	13	10	8	7	9	18	19	12	19
IAC duty ratio	%	S7	S3	38	40	40	S4	SS	60	S2
Calculated Load Value	%	48	13	18	15	15	11	38	8	15
Air Flow Rate MAF Sensor	gmrs	7.82	2.53	2.04	2.48	2.14	24.10	20.81	4.12	14.48
Engine RPM	RPM	1797	111a	728	640	2071	3787	3880	2819	3028
Engine Coolant Temp.	degF	129	192	194	190	190	190	188	188	188
Idata Rx Temp.	degF	50	57	64	82	59	50	44	57	57
Abs. Throttle Position Switch	%	13	10	10	10	10	18	20	14	18
CTP switch		off	off	on	on	on	off	off	off	off
Vehicle Speed	MPH	40	29	0	S	20	82	81	64	67
Short Term Fuel Trim /B1	%	-1	-1	1	-4	-2	1	3	0	-1
Long Term Fuel Trim /B1	%	-1	S	7	7	S	1	S	S	6
Total fuel trim tract 1	%	100.0	103.9	109.8	105.9	108.3	102.3	111.7	119.2	108.2
Total fuel trim tract 2	%	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
W light		off	off	off	off	off	off	off	off	off

FIG. 7B

PNP switch		off	off	off	off	off	off	off	off	off	off
Elect. hand signal		off	off	on	off	off	on	on	on	on	on
Stop light switch		off	off	off	off	off	off	off	off	off	off
PS oil press. switch		off	off	off	off	off	off	off	off	off	off
B1S2 Voltage	V	0.900	0.110	0.155	0.130	0.040	0.770	0.790	0.085	0.790	
PS signal		on	on	on	on	on	on	on	on	on	
Inate control VSV1		off	off	off	off	off	off	off	off	off	
Inate control VSV2		off	off	off	off	off	off	off	off	off	
AVC mag. clutch		off	off	off	off	off	off	off	off	off	
V??? ?????? VSV		off	off	off	off	off	off	off	off	off	
CVD cut switch 1		off	off				off	off	off	off	
CVD cut switch 2		off	off				off	off	off	off	
Reverse selected		off	off				off	off	off	off	
2nd selected		off	off				off	off	off	off	
Low selected		off	off				off	off	off	off	
No. ignites		0	0	341	64	215	0	0	0	0	
Cyl. 1 misfires		0	0	0	0	0	0	0	0	0	
Cyl. 2 misfires		0	0	0	0	0	0	0	0	0	
Cyl. 3 misfires		0	0	0	0	0	0	0	0	0	
Cyl. 4 misfires		0	0	0	0	0	0	0	0	0	
Cyl. 5 misfires		0	0	0	0	0	0	0	0	0	
Cyl. 6 misfires		0	0	0	0	0	0	0	0	0	
Oxygen Sensor Location		B1S1 B1S2	B1S1 B1S2	B1S1 B1S2	B1S1 B1S2	B1S1 B1S2	B1S1 B1S2	B1S1 B1S2	B1S1 B1S2	B1S1 B1S2	
B1S1 Final Time	%	-6	-4	-1	0	0	-10	-8	-4	-2	
B1S1 Voltage	V	0.115	0.895	0.085	0.080	0.080	0.755	0.280	0.880	0.885	
B1S1 Final Time	%	100	100	100	100	100	100	100	100	100	
OBD system type			1	1	1	1	1 1	1	1	1	
		125'	129'	127a	127b	127c					

FIG. 7C

INTERNET-BASED VEHICLE-DIAGNOSTIC SYSTEM

TECHNICAL FIELD

The present invention relates to use of an internet-based system for diagnosing a vehicle's performance.

BACKGROUND

The Environmental Protection Agency (EPA) requires vehicle manufacturers to install on-board diagnostics (OBD-II) for monitoring light-duty automobiles and trucks beginning with model year 1996. OBD-II systems (e.g., microcontrollers and sensors) monitor the vehicle's electrical and mechanical systems and generate data that are processed by a vehicle's engine control unit (ECU) to detect any malfunction or deterioration in the vehicle's performance. Most ECUs transmit status and diagnostic information over a shared, standardized electronic buss in the vehicle. The buss effectively functions as an on-board computer network with many processors, each of which transmits and receives data. The primary computers in this network are the vehicle's electronic-control module (ECM) and power-control module (PCM). The ECM typically monitors engine functions (e.g., the cruise-control module, spark controller, exhaust/gas recirculator), while the PCM monitors the vehicle's power train (e.g., its engine, transmission, and braking systems). Data available from the ECM and PCM include vehicle speed, fuel level, engine temperature, and intake manifold pressure. In addition, in response to input data, the ECU also generates 5-digit 'diagnostic trouble codes' (DTCs) that indicate a specific problem with the vehicle. The presence of a DTC in the memory of a vehicle's ECU typically results in illumination of the 'Service Engine Soon' light present on the dashboard of most vehicles.

Data from the above-mentioned systems are made available through a standardized, serial 16-cavity connector referred to herein as an 'OBD-II connector'. The OBD-II connector typically lies underneath the vehicle's dashboard. When a vehicle is serviced, data from the vehicle's ECM and/or PCM is typically queried using an external engine-diagnostic tool (commonly called a 'scan tool') that plugs into the OBD-IL connector. The vehicle's engine is turned on and data are transferred from the engine computer, through the OBD-II connector, and to the scan tool. The data are then displayed and analyzed to service the vehicle. Scan tools are typically only used to diagnose stationary vehicles or vehicles running on a dynamometer.

Some vehicle manufacturers also include complex electronic systems in their vehicles to access and analyze some of the above-described data. For example, General Motors includes a system called 'On-Star' in some of their high-end vehicles. On-Star collects and transmits data relating to these DTCs through a wireless network. On-Star systems are not connected through the OBD-II connector, but instead are wired directly to the vehicle's electronic system. This wiring process typically takes place when the vehicle is manufactured.

SUMMARY

Embodiments of the invention can provide a wireless, internet-based system for monitoring a vehicle. For example, embodiments of the invention can access data from a vehicle, analyze it, and make it available to organizations (e.g. an automotive dealership or service center) over the internet so that the vehicle's performance can be analyzed accurately and in real-time. Data are accessed through the same OBD-II connector used by conventional scan tools. In this way, the invention collects data similar to those collected by scan tools, only they are collected in real-time while the vehicle is actually being driven. The invention also provides an Internet-based web site to view these data. The web site also includes functionality to modify the type of data being collected, e.g. the type of diagnostic data or the frequency at which it is collected. The data can be collected and viewed over the Internet without having to bring the vehicle in for service. The data include, for example, DTCs and mechanical and electrical data stored in the vehicle's engine computer.

In one aspect, the invention features a system for monitoring operational characteristics of a vehicle. The system includes a computer in the vehicle, and a wireless appliance in electrical contact with the computer. The wireless appliance includes a data-transmission component configured to transmit data associated with the operational characteristics over a network to a host computer system, and to receive over the network data from the host computer system.

In another aspect, the invention features a device for monitoring operational characteristics of a vehicle. The device includes a wireless appliance including a data transmission component configured to communicate data associated with the operational characteristics over a network to a host computer.

In another aspect, the invention features a device for monitoring operational characteristics of a vehicle. The device includes a wireless appliance including a data transmission component configured to receive data associated with the operational characteristics over a network from a host computer.

In a further aspect, the invention features a system for monitoring operational characteristics of a vehicle. The system includes a host computer and a wireless appliance including a data transmission component configured to communicate data associated with the operational characteristics over a network to the host computer. In some embodiments, the wireless appliance is in the vehicle. In certain embodiments, the host computer is external to the vehicle.

In one aspect, the invention features a system for monitoring operational characteristics of a vehicle. The system includes a host computer and a wireless appliance including a data transmission component configured to receive data associated with the operational characteristics over a network from the host computer. In some embodiments, the wireless appliance is in the vehicle. In certain embodiments, the host computer is external to the vehicle.

Embodiments of the invention can include one or more of the following features and/or advantages.

The 'wireless appliance' used in the above-described invention features a data-transmitting component (e.g. a radio or cellular modem) that sends out the data packet over an existing wireless network (e.g., Cingular's Mobitex network). Such a wireless appliance is described in the application WIRELESS DIAGNOSTIC SYSTEM FOR VEHICLES, filed Feb. 1, 2001, the contents of which are incorporated herein by reference.

In embodiments, the communication software supported by the data-collection component features a schema component that identifies the diagnostic data to be collected from the vehicle's computer. The schema component features an address that describes a location of a diagnostic datum in the

vehicle's computer memory. It can also describe a time or frequency that the data-collection component collects data from the vehicle's computer, or a time or frequency that the data-transmission component transmits an outgoing data packet. The schema component is typically an ASCII or binary data file that is configured to be processed by the communication software.

In the above-mentioned description, the term 'supported' means that an executable version of the communication software can run as a computer program on a microprocessor, microcontroller, or comparable, semiconductor-based device resident on the data-collection component.

The host computer system typically features at least one web-hosting computer that hosts the web site, and at least one, separate gateway computer that receives the outgoing data packet and sends the incoming data packet. In this embodiment the web site features a first web page that displays at least a single vehicle diagnostic datum. For example, the first web page can include data fields describing: i) a name of the diagnostic datum; ii) units corresponding to the diagnostic datum; and iii) a numerical value corresponding to the diagnostic datum. Multiple sets of diagnostic data, each received by the host computer system at a unique time and date, can also be displayed on the web page. The page can also include a graphical representation of the sets of diagnostic data, e.g. a time-dependent plot of the data.

In typical applications the set of diagnostic data includes at least one of the following: diagnostic trouble codes, vehicle speed, fuel level, fuel pressure, miles per gallon, engine RPM, mileage, oil pressure, oil temperature, tire pressure, tire temperature, engine coolant temperature, intake-manifold pressure, engine-performance tuning parameters, alarm status, accelerometer status, cruise-control status, fuel-injector performance, spark-plug timing, and a status of an anti-lock braking system.

In other embodiments the web site further includes a login web page, in communication with a database component, where a user enters a user name and password. The database component is configured to verify if the user is associated with multiple vehicles. If this is the case, the web site includes a second web page that displays vehicle diagnostic data corresponding to each vehicle.

In still other embodiments the web site includes a third web page that features a mechanism for sending the incoming data packet over the network. For example, the third web page can include a mechanism for selecting a new schema wherein a list of parameters is provided, each of which can be extracted from the vehicle's computer.

The gateway computer that receives the outgoing data packet and sends the incoming data packet is connected to the network, typically through an Internet-based connection or a digital communication line.

The system can also include a secondary computer system that connects to the host computer system through the Internet to display the web site. Alternatively, the system includes a hand-held device, e.g. a cellular telephone or personal digital assistant, which connects to the host computer system through the Internet. The host computer system can also be configured to send an electronic mail message that includes all or part of the vehicle diagnostic data.

In other embodiments, the wireless appliance is configured to send an outgoing data packet that indicates a location of a transmitting base station. In this case, the host computer system includes software that analyzes this location to determine an approximate location of the vehicle, which can then be displayed on a web page.

In the above-described method, the term "airlink" refers to a standard wireless connection (e.g., a connection used for wireless telephones or pagers) between a transmitter and a receiver. This term describes the connection between a data-transmission component and the wireless network that supports data transmitted by this component. Also in the above-described method, the 'generating' and 'transmitting' steps can be performed at any time and with any frequency, depending on the diagnoses being performed. For a 'real-time' diagnoses of a vehicle's engine performance, for example, the steps may be performed at rapid time or mileage intervals (e.g., several times each minute, or every few miles). Alternatively, other diagnoses (e.g. an emissions or 'smog' check) may require the steps to be performed only once each year or after a large number of miles are driven. Alternatively, the vehicle may be configured to automatically perform these steps at predetermined or random time intervals. As described in detail below, the transmission frequency can be changed in real time by downloading a new 'schema' to the wireless appliance through the wireless network.

The term 'web page' refers to a standard, single graphical user interface or 'page' that is hosted on the Internet or world-wide web. Web pages typically include: 1) a 'graphical' component for displaying a user interface (typically written in a computer language called 'HTML' or hypertext mark-up language); an 'application' component that produces functional applications, e.g. sorting and customer registration, for the graphical functions on the page (typically written in, e.g., C++ or Java); and a database component that accesses a relational database (typically written in a database-specific language, e.g. SQL*Plus for Oracle databases). A 'web site' typically includes multiple web pages, many of which are 'linked' together, that are accessed through a series of 'mouse clicks'.

The invention has many advantages. In particular, wireless transmission of data from a vehicle, followed by analysis and display of these data using a web site hosted on the internet, makes it possible to diagnose the performance of a vehicle in real-time from virtually any location that has internet access. This ultimately means the problems with the vehicle can be efficiently diagnosed, and in some cases predicted before they actually occur. Moreover, data from the vehicle can be queried and analyzed while the vehicle is actually in use to provide a relatively comprehensive diagnosis that is not possible using a conventional scan tool. An internet-based system for vehicle diagnoses can also be easily updated and made available to a large group of users simply by updating software on the web site. In contrast, a comparable updating process for a series of scan tools can only be accomplished by updating the software on each individual scan tool. This, of course, is time-consuming, inefficient, and expensive, and introduces the possibility that many scan tools within a particular product line will not have the very latest software.

The wireless appliance used to access and transmit the vehicle's data is small, low-cost, and can be easily installed in nearly every vehicle with an OBD-II connector in a matter of minutes. It can also be easily transferred from one vehicle to another, or easily replaced if it malfunctions.

The wireless appliance can also collect data that is not accessible using a scan tool. For example, data that indicates a vehicles performance can be collected while the vehicle is actually driven. For example, it may be required to collect

data while a vehicle is driving up a hill or pulling a load. Scan tools, in contrast, can only collect data from a stationary vehicle in a service bay. Service technicians using the wireless appliance, for example, can analyze DTCs and diagnostic data while the vehicle is being driven. The system described herein also makes data available in real-time, thereby allowing the technicians to order parts and schedule resources for service appointments before the vehicle is actually brought into the dealership.

Moreover, software schemas that update the type or frequency of the vehicle's data can be directly downloaded to specific wireless appliances or groups of wireless appliances (corresponding, e.g., to a fleet of vehicles or a group of vehicles having the same year, make, or model). This makes it possible to collect data that specifically elucidates a problem with the vehicle that may occur only under certain driving conditions.

The resulting data, of course, have many uses for automotive dealerships, vehicle-service organizations, vehicle-renting firms, insurance companies, vehicle owners, organizations that monitor emission performance (e.g., the EPA), manufacturers of vehicles and related parts, survey organizations (e.g., J.D. Power) and vehicle service centers. In general, these data yield information that benefits the consumer, vehicle and parts manufacturers, vehicle service centers, and the environment.

These and other advantages of the invention are described in the following detailed disclosure and in the claims.

DESCRIPTION OF THE DRAWINGS

The features and advantages of the present invention can be understood by reference to the following detailed description taken with the drawings, in which:

FIG. **1** is a schematic drawing of system of the invention featuring a single vehicle transmitting data across an airlink to an Internet-accessible host computer system;

FIG. **2** is a flow chart describing a method used by the system of FIG. **1** to diagnose vehicles;

FIG. **3** is a schematic drawing of the system of the invention featuring multiple vehicles, each transmitting data across an airlink to an Internet-accessible host computer system;

FIG. **4** is a schematic drawing of a web site with a login process that renders a series of web pages associated with either a dealer or customer interface;

FIG. **5** is a screen capture of a web page from the web site of FIG. **4** that shows a list of customers corresponding to a single dealership;

FIG. **6** is a screen capture of a web page related to the web page of FIG. **5** that shows diagnostic data for a customer's vehicle; and

FIG. **7** is a screen capture of a web page from the web site of FIG. **1** that shows several time-dependent sets of diagnostic data from a customer's vehicle.

DETAILED DESCRIPTION

FIG. **1** shows a schematic drawing of an Internet-based vehicle-diagnostic system **2** according to the invention. The system **2** measures diagnostic data from a vehicle **12** and transmits it over an airlink **9** to a web site **6** accessible through the Internet **7**. The system **2** functions in a bi-directional manner, i.e. in addition to receiving data from a vehicle, a user logged onto the web site **6** can specifically select the diagnostic data to be measured and the frequency at which it is measured. These properties are sent through the airlink **9** to the wireless appliance **13** that re-measures the diagnostic data from the vehicle **12**. In this way, the invention functions effectively as an Internet-based 'scan tool' that diagnoses any vehicle that includes a wireless appliance. The host vehicle can be diagnosed at any time it is being driven using an Internet-accessible web site.

The wireless appliance **13** disposed within the vehicle **12** collects diagnostic data from the vehicle's engine computer **15**. The engine computer **15** retrieves data stored in its memory and sends it along a cable **16** to the wireless appliance **13**. The appliance **13** typically connects to the OBD-II connector located under the dash in all vehicles manufactured after 1996. It includes a data-collection component (not shown in the figure) that formats the data in a packet and then passes the packet to a data-transmission component, which sends it through a cable **17** to an antenna **14**. To generate the data, the wireless appliance **13** queries the vehicle's computer **15** at a first time interval (e.g. every 20 seconds), and transmits a data set at a longer time interval (e.g. every 10 minutes). These time intervals are specified in a data-collection 'schema', described in more detail below.

The antenna typically rests in the vehicle's shade band, disposed just above the dashboard. The antenna **14** radiates the data packet over the airlink **9** to a base station **11** included in a wireless network **4**. A host computer system **5** connects to the wireless network **4** and receives the data packets. The host computer system **5**, for example, may include multiple computers, software pieces, and other signal-processing and switching equipment, such as routers and digital signal processors. Data are typically transferred from the wireless network **4** to host computer system **5** through a TCP/IP-based connection, or with a dedicated digital leased line (e.g., a frame-relay circuit or a digital line running an x0.25 protocol). The host computer system **5** also hosts a web site **6** using conventional computer hardware (e.g. computer servers for a database and the web site) and software (e.g., web server and database software). A user accesses the web site **6** through the Internet **7** from a secondary computer system **8**. The secondary computer system **8**, for example, may be located in an automotive service center.

The wireless appliance that provides diagnostic data to the web site is described in more detail in WIRELESS DIAGNOSTIC SYSTEM FOR VEHICLES, filed Feb. 1, 2001, the contents of which have been previously incorporated by reference. The appliance transmits a data packet that contains information of its status, an address describing its destination, an address describing its origin, and a 'payload' that contains the above-described diagnostic data from the vehicle, or a schema from the web site. These data packets are transmitted over conventional wireless network, such as Cingular's Mobitex network.

FIG. **2** shows a method **21** describing how the system **2** in FIG. **1** typically operates. As described above, the wireless appliance includes a data-collection component that, in turn, includes a microcontroller that has software and a data-collection 'schema' loaded in the microcontroller's memory. The schema is essentially a 'map' that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory. A schema specific to a given type of vehicle is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle (step **22** in FIG. **2**). During operation, the appliance communicates with the vehicle's engine computer as described above (step **23**). The appliance collects diagnostic data defined by the

schema, formats these data in a data packet, and then sends an outgoing packet over the airlink to a wireless network (step **24**). The network transfers the data packet to the host computer system as described above (step **25**). There, the host computer system analyzes the data packet using a 'map' that corresponds to the schema to generate a data set (step **26**). Every schema has a corresponding map. The map includes, for example, a list of the collected data, an acronym and unit for each datum. The data set, acronym, and units are then displayed on the web site (step **28**) where they can be viewed by any 'registered' user (i.e., a user with a username and corresponding password) with Internet connectivity.

In one mode of operation, a technician working at a vehicle-service center logs into the web site and analyzes the data set corresponding to a particular vehicle to diagnose a potential mechanical or electrical problem (step **30**). Specific web pages that display the data set are shown in FIGS. **5–7**, below. Based on the analysis, the technician may decide that additional data are required, or that data need to be collected and transmitted at a higher or lower frequency. In this case the technician uses the web site to select a new schema (step **32**) and then sends an incoming data packet that includes a new schema over the wireless network to the wireless appliance included in the vehicle being diagnosed (step **34**). In typical applications, the vehicle is specifically addressed using a serial number that corresponds to the data-transmitting component. This serial number is typically an 8 or 10-digit number that functions effectively as a 'phone number' corresponding to the data-transmitting component. This number is included in the data packet, and is used by the wireless network to transfer the packet to the host vehicle (step **35**). The host vehicle receives the packet and processes it to extract the new data-collection schema (step **36**). The wireless appliance uses the updated schema to extract a revised set of data from the vehicle's engine computer, or send out data at a revised frequency (step **38**). In other applications, the new schema can be used to query a set of data that is relevant to a DTC registered by the vehicle, or to 'clear' a DTC when it is deemed to no longer be problematic. Once these data are collected, the method **21** can then be repeated as described above to further diagnose the vehicle.

The above-described system is designed to work with multiple vehicles and multiple secondary computer systems, each connected to the web site through the Internet. FIG. **3** illustrates this point, showing a system **20**, similar to the system **2** of FIG. **1**, used to diagnose a set of vehicles **12***a*–**12***c*. The system **20** operates similarly as that described above: a wireless appliance **13***a*–**13***c* disposed in each vehicle collects data from the vehicles'respective engine computers **15***a*–**15***c*, formats these data into data packets, and then sends the data packets using antennae **14***a*–**14***c* over a series of airlinks **9***a*–**9***c* to a base stations **11***a*–**11***b* featured in a wireless network **4**. Each vehicle may include a unique schema. In this case, two vehicles **12***a*, **12***b* send their respective data packets to a single base station **11***b*, while a single vehicle **12***c* sends its data packet to a single base station **11***a*. The number and location of the base stations depends on the wireless network; in the Mobitex network there is typically one base station per zip code in most major cities. Once the data packets are received, the wireless network **4** routes them to the host computer system **5**. They are then processed with a corresponding map and consequently formatted as a series of data sets and displayed on the web site **6**. A series of secondary computer systems **8***a*–**8***c*, **8***n* view the web site using separate connections over the Internet **7***a*–**7***c*, **7***n*. Users of the secondary computer systems **8***a*–**8***c*, **8***n* associated with organizations containing a series of vehicles (e.g., a vehicle dealership) can view data from all vehicles associated with the organization. In contrast, individual vehicle owners can only view data from their particular vehicle.

FIG. **4** illustrates this concept in more detail. The figure shows a schematic drawing of a login process **40** for a web site **42** that displays diagnostic data for a series of 'customer' vehicles associated with a vehicle 'dealership'. Within each vehicle is a wireless appliance that retrieves data from the vehicle's engine computer, and then sends these data, formatted in a data packet, through a wireless network. The data eventually are transferred from the network, through a host computer system, to the web site **42** where they are formatted, displayed and processed as described below.

A user 'logs' into the web site **42** through a login interface **44** by entering a username and password that, once entered, are compared to a database associated with the web site. The comparison determines if the user is a dealer or a customer. If the user is determined to be a dealer, the web site renders a dealer interface **46** that contains, e.g., diagnostic information for each purchased vehicle. Users viewing the dealer interface **46** do not have access to data corresponding to vehicles sold by other dealerships. If the user is determined to be a customer, the web site **42** renders a customer interface **48** that contains diagnostic information for one or more vehicles corresponding to the customer. Each customer using the web site **42** is associated with a unique customer interface.

FIG. **5** is a screen capture of a web page **50** included in the dealer interface indicated in FIG. **4**. The host computer system renders this page once the user is determined to be a dealer following the login process. The screen capture features a customer list **52** corresponding to a single dealership that includes: customer names **56** for each customer; a vehicle description **58** that includes the vehicle's year, make and model; a unique 17-digit vehicle identification number ('VIN') **60** that functions as the vehicle's serial number; and an 'alert' listing **62** that provides a number of alerts for each vehicle. The 'alerts' are described in more detail in the application entitled 'INTERNET-BASED SYSTEM FOR MONITORING VEHICLES', filed Mar. 15, 2001, the contents of which are incorporated herein by reference. In general, an alert is generated when data, sent from the vehicle's wireless appliance to the host computer system, indicates either 1) a mechanical/electrical problem with the vehicle; or 2) that a scheduled maintenance is recommended for the vehicle. For example, the customer list **52** includes a data field **54** that lists the user 'Five, Loaner' with an associated 2001 Toyota Corolla. The data field **54** also includes the number '1' in the alert listing **62**, indicating the presence of a single alert.

FIG. **6** shows a web page **120** that lists a detailed data set **122** transmitted from the vehicle-based wireless appliance to the host computer system. The host computer system receives the data set **122** at a time described by a time/date stamp **72** listed in the header **61**. The data set **122** includes a data parameter name **125**, a corresponding numerical value **127**, and a description of the units **129** of the numerical value **127**. As described above, these values are specified in the map corresponding to the data-collection schema used to extract the data from the vehicle. Some of the numerical values (e.g., the status of the 'MIL light' **131**) are dimensionless, i.e. they do not have units. To generate the numerical values **127**, the wireless appliance queries the vehicle's ECU at a set time interval (e.g. every 20 seconds),

and transmits a data set **122** at a longer time interval (e.g. every 10 minutes). Thus, the numerical values in the data set can represent 'instantaneous' values that result from a single query to the ECU, or they can represent 'average' values that result from an average from multiple sequential queries.

The data parameters within the set **122** describe a variety of electrical, mechanical, and emissions-related functions in the vehicle. Several of the more significant parameters from the set are listed in Table 1, below:

Pending DTCs
Ignition Timing Advance
Calculated Load Value
Air Flow Rate MAF Sensor
Engine RPM
Engine Coolant Temperature
Intake Air Temperature
Absolute Throttle Position Sensor
Vehicle Speed
Short-Term Fuel Trim
Long-Term Fuel Trim
MIL Light Status
Oxygen Sensor Voltage
Oxygen Sensor Location
Delta Pressure Feedback EGR Pressure Sensor
Evaporative Purge Solenoid Dutycycle
Fuel Level Input Sensor
Fuel Tank Pressure Voltage
Engine Load at the Time of Misfire
Engine RPM at the Time of Misfire
Throttle Position at the Time of Misfire
Vehicle Speed at the Time of Misfire
Number of Misfires
Transmission Fluid Temperature
PRNDL position (1,2,3,4,5=neutral, 6=reverse)
Number of Completed OBDII Trips
Battery Voltage

Table 1—Parameters Monitored from Vehicle

The parameters listed in Table 1 were measured from a Ford Crown Victoria. Similar sets of data are available for nearly all vehicles manufactured after 1996 that have an OBD-II connector. In addition to these, hundreds of other vehicle-specific parameters are also available from the vehicle's computer.

The data set **122** shown in FIG. **6** represents the most recent data sent from the vehicle's wireless appliance to the host computer system. Data sets sent at earlier times can also be analyzed individually or in a group to determine the vehicle's performance. These 'historical data', for example, can by used to determine trends in the vehicle's performance. In some cases data analyzed in this manner can be used to predict potential problems with the vehicle before they actually occur.

Referring to FIG. **7**, a web page **130** includes a historical data set **132** containing data parameter names **125'**, units **129'** and a series of data sets **127***a*–**127***c* transmitted at earlier times from the in-vehicle wireless appliance. Each of these data sets is similar to the data set **122** shown in FIG. **6**, but is received by the host computer system at an earlier time as indicated by a time stamp **140***a*–**140***c*. For example, the first two data sets **127***c*, **127***b* where transmitted with time stamps **140***b*, **140***c* of 11:42 and 11:52 on Feb. 12, 2001; the last data set **127***a* was transmitted the next morning with a time stamp **140***a* of 6:05.

Other embodiments are also within the scope of the invention. In particular, the web pages used to display the data can take many different forms, as can the manner in which the data are displayed. Web pages are typically written in a computer language such as 'HTML' (hypertext mark-up language), and may also contain computer code written in languages such as java for performing certain functions (e.g., sorting of names). The web pages are also associated with database software (provided by companies such as Oracle) that is used to store and access data. Equivalent versions of these computer languages and software can also be used.

Different web pages may be designed and accessed depending on the end-user. As described above, individual users have access to web pages that only show data for their particular vehicle, while organizations that support a large number of vehicles (e.g. dealerships or distributors) have access to web pages that contain data from a collection of vehicles. These data, for example, can be sorted and analyzed depending on vehicle make, model, odometer reading, and geographic location. The graphical content and functionality of the web pages may vary substantially from what is shown in the above-described figures. In addition, web pages may also be formatted using standard wireless access protocols (WAP) so that they can be accessed using wireless devices such as cellular telephones, personal digital assistants (PDAs), and related devices.

The web pages also support a wide range of algorithms that can be used to analyze data once it is extracted from the data packets. For example, the above-mentioned alert messages are sent out in response to a DTC or when a vehicle approaches a pre-specified odometer reading. Alternatively, the message could be sent out when a data parameter (e.g. engine coolant temperature) exceeded a predetermined value. In some cases, multiple parameters (e.g., engine speed and load) can be analyzed to generate an alert message. In general, an alert message can be sent out after analyzing one or more data parameters using any type of algorithm. These algorithms range from the relatively simple (e.g., determining mileage values for each vehicle in a fleet) to the complex (e.g., predictive engine diagnoses using 'data mining' techniques). Data analysis may be used to characterize an individual vehicle as described above, or a collection of vehicles, and can be used with a single data set or a collection of historical data. Algorithms used to characterize a collection of vehicles can be used, for example, for remote vehicle or parts surveys, to characterize emission performance in specific geographic locations, or to characterize traffic.

Other embodiments of the invention include algorithms for analyzing data to characterize vehicle accidents and driving patterns for insurance purposes; algorithms for determining driving patterns for use-based leasing; and algorithms for recording vehicle use and driving patterns for tax purposes. In general, any algorithm that processes data collected with the above-described method is within the scope of the invention.

In other embodiments, additional hardware can be added to the in-vehicle wireless appliance to increase the number of parameters in the transmitted data. For example, hardware for global-positioning systems (GPS) may be added so that the location of the vehicle can be monitored along with its data. Or the radio modem used to transmit the data may employ a terrestrial GPS system, such as that available on modems designed by Qualcomm, Inc. In still other embodiments, the location of the base station that transmits the message can be analyzed to determine the vehicle's approximate location. In addition, the wireless appliance may be interfaced to other sensors deployed in the vehicle to

monitor additional data. For example, sensors for measuring tire pressure and temperature may be deployed in the vehicle and interfaced to the appliance so that data relating the tires' performance can be transmitted to the host computer system.

In other embodiments, the antenna used to transmit the data packet is embedded in the wireless appliance, rather than being disposed in the vehicle's shade band.

In still other embodiments, data processed using the above-described systems can be used for: remote billing/payment of tolls; remote smog and emissions checks; remote payment of parking/valet services; remote control of the vehicle (e.g., in response to theft or traffic/registration violations); and general survey information.

Still other embodiments are within the scope of the following claims.

What is claimed is:

1. A system for interfacing with an on-board diagnostic computer in a vehicle, wherein the on-board diagnostic computer monitors a set of operational characteristics of a vehicle, the system comprising:

a wireless appliance which during use communicates with the vehicle's on-board diagnostic computer, said wireless appliance comprising a wireless communication component and a data-collection component, said wireless communication component configured to receive from a wireless network a schema identifying a subset of the set of operational characteristics that are monitored by the on-board diagnostic computer, said data-collection component configured to process the received schema and to collect from the vehicle's on-board diagnostic computer data for the subset of operational characteristics identified in the received schema, said wireless communication component being further configured to transmit said collected data over the wireless network to a host computer system.

2. The system of claim **1**, wherein the schema identifies an address of an operational characteristic for which data is to be collected from the vehicle's on-board diagnostic computer.

3. The system of claim **2**, wherein the schema comprises an address that describes a location of a diagnostic datum in a computer memory in the vehicle.

4. The system of claim **1**, wherein the host computer system is configured to transmit the schema.

5. The system of claim **1**, wherein the schema comprises a field that describes a time or frequency at which the data-collection component queries the vehicle's on-board diagnostic computer.

6. The system of claim **1**, wherein the schema comprises a field that describes a time or frequency at which the data-transmission component transmits data.

7. The system of claim **1**, wherein the schema is an ASCII or binary data file.

8. The system of claim **1**, wherein the system comprises a host computer system that includes at least one web-hosting computer that hosts an internet-based web site, and at least one, separate gateway computer that receives outgoing data and sends incoming data.

9. The system of claim **8**, wherein the internet-based web site comprises a first web page that displays a vehicle diagnostic datum.

10. The system of claim **9**, wherein the web site comprises a first web page that comprises data fields describing:

i) a name of a diagnostic datum;

ii) units corresponding to the diagnostic datum; and

iii) a numerical value corresponding to the diagnostic datum.

11. The system of claim **10**, wherein the first web page further comprises multiple sets of diagnostic data associated with a single vehicle.

12. The system of claim **11**, wherein the first web page further comprises a graphical representation of a set of diagnostic data.

13. The system of claim **9**, wherein the internet-base__ web site further comprises a database component.

14. The system of claim **13**, wherein the internet-base__ web site further comprises a login web page where a user enters a user name and password.

15. The system of claim **14**, wherein the database component comprised by the login web page is configured to verify if the user is associated with a first or second internet-based interface.

16. The system of claim **15**, wherein the web site comprises a web page that displays vehicle diagnostic data corresponding to multiple vehicles each associated with a single user.

17. The system of claim **8**, wherein the host computer hosts a web site on the Internet that displays the operational characteristics, wherein the web site comprises a web page that comprises a mechanism for sending the incoming data over the network.

18. The system of claim **17**, wherein the web page comprises a list of parameters that can be extracted from the vehicle's computer.

19. The system of claim **8**, wherein the gateway computer that receives the outgoing data packet and sends the incoming data packet is connected to the network.

20. The system of claim **19**, wherein the gateway computer is connected to a digital communication line that is connected to the network.

21. The system of claim **1**, wherein the operation characteristics include at least one of the following:

diagnostic trouble codes, vehicle speed, fuel level, fuel pressure, miles per gallon, engine RPM, mileage, oil pressure, oil temperature, tire pressure, tire temperature, engine coolant temperature, intake-manifold pressure, engine-performance tuning parameters, alarm status, accelerometer status, cruise-control status, fuel-injector performance, spark-plug timing, and a status of an anti-lock braking system.

22. The system of claim **1**, further comprising a secondary computer system that connects to the host computer system through the Internet and is configured to display the web site.

23. The system of claim **1**, further comprising a hand-held device that connects to the host computer system through the Internet and is configured to display the web site.

24. The system of claim **23**, wherein the hand-held device is a cellular telephone, computer or a personal digital assistant.

25. The system of claim **1**, wherein the host computer system is further configured to send an electronic mail message that comprises all or part of the vehicle diagnostic data.

26. The system of claim **1**, wherein the wireless appliance is configured to send an outgoing data packet that indicates a vehicle's location.

27. The system of claim **26**, wherein the host computer system comprises software that analyzes the vehicle's location and displays it on a map.

28. The system of claim **27**, wherein the web site comprises a web page that displays the map.

29. The system of claim **1**, wherein the data-collection component is configured to repeatedly collect said data from

the vehicle's on-board diagnostic computer data at times determined by a first schedule.

30. The system of claim **29**, wherein the first schedule is specified in the schema.

31. The system of claim **1**, wherein the wireless communication component is configured to repeatedly transmit the collected data over the wireless network to a host computer system at times determined by a first schedule.

32. The system of claim **31**, wherein the first schedule is specified in the schema.

33. A system for monitoring a set of vehicles, the system comprising:

a host computer that hosts a web site that receives operational characteristics transmitted wirelessly from the set of vehicles, said web site programmed to enable a user to display on a first web page the operational characteristics of a single vehicle selected from among said set of vehicles and to also display the operational characteristics of multiple vehicles among said set of vehicles on a second web page, said multiple vehicles associated with a single entity.

* * * * *

US006636790B1

(12) **United States Patent**
Lightner et al.

(10) **Patent No.: US 6,636,790 B1**
(45) **Date of Patent: Oct. 21, 2003**

(54) **WIRELESS DIAGNOSTIC SYSTEM AND METHOD FOR MONITORING VEHICLES**

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(21) Appl. No.: **09/776,106**

(22) Filed: **Feb. 1, 2001**

Related U.S. Application Data

(60) Provisional application No. 60/222,152, filed on Aug. 1, 2000, provisional application No. 60/222,213, filed on Aug. 1, 2000, and provisional application No. 60/220,986, filed on Jul. 25, 2000.

(51) **Int. Cl.**[7] **G06F 7/00**

(52) **U.S. Cl.** **701/33**; 701/29

(58) **Field of Search** 701/29, 30, 33, 701/35; 73/116, 117.2

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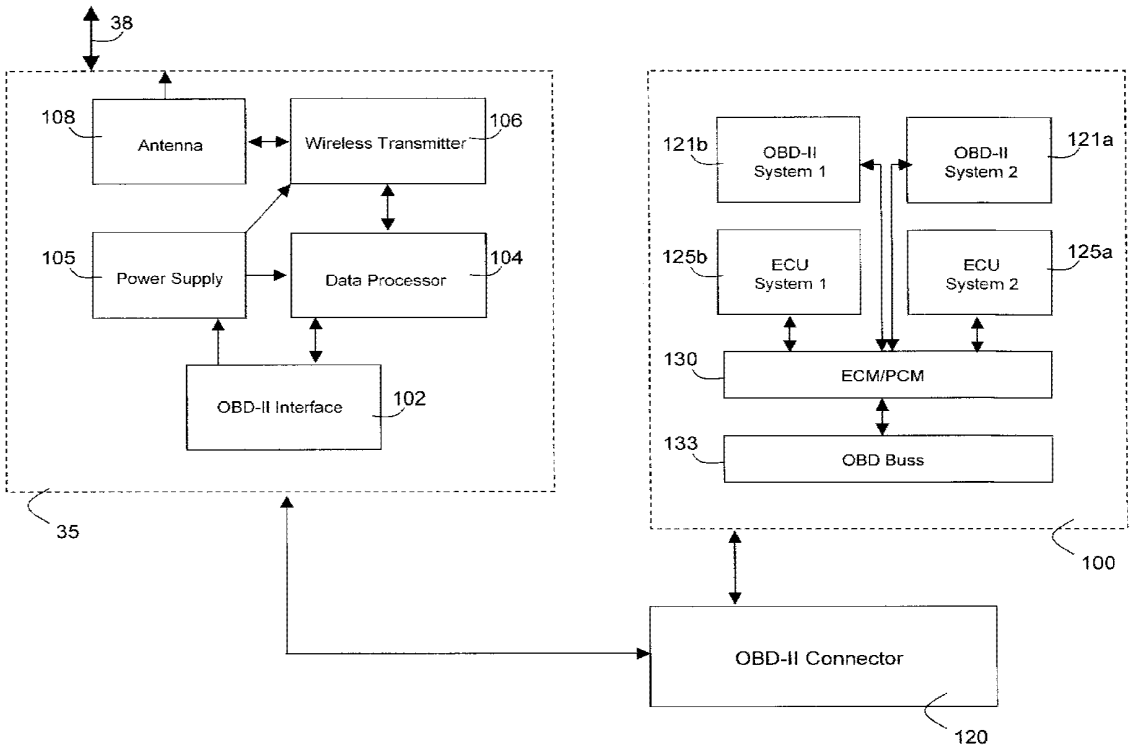
WO	WO 00/79727	12/2000

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(74) *Attorney, Agent, or Firm*—Hale and Dorr LLP

(57) **ABSTRACT**

A method and apparatus for remotely characterizing a vehicle's performance is described. The method features the steps of: i) generating data representative of the vehicle's performance with at least one microcontroller disposed within the vehicle; ii) transferring the data through an OBD, OBD-II or equivalent electrical connector to a data collector/router that includes a microprocessor and an electrically connected wireless transmitter; iii) transmitting a data packet representing the data with the wireless transmitter over an airlink to a wireless communications system and then to a host computer; and iv) analyzing the data packet with the host computer to characterize the vehicle's performance.

36 Claims, 4 Drawing Sheets



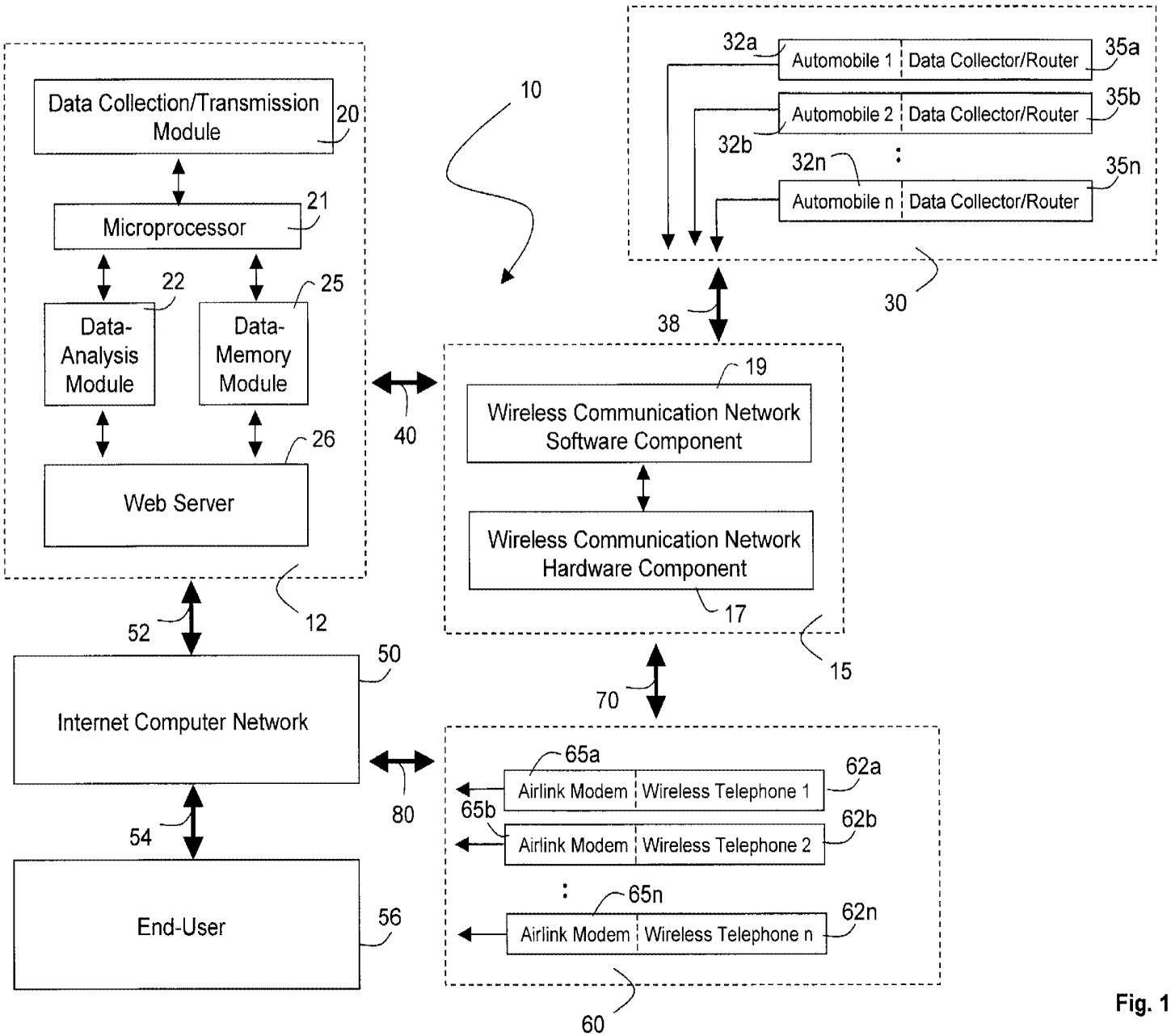

Data Collection/Transmission Module
20
Microprocessor
21
Data-Analysis Module
22
Data-Memory Module
25
Web Server
26
12
10
32a
Automobile 1
Data Collector/Router
35a
Automobile 2
Data Collector/Router
35b
32b
32n
Automobile n
Data Collector/Router
35n
30
38
40
19
Wireless Communication Network Software Component
Wireless Communication Network Hardware Component
17
15
70
52
50
Internet Computer Network
80
54
End-User
56
65a
Airlink Modem
Wireless Telephone 1
62a
65b
Airlink Modem
Wireless Telephone 2
62b
65n
Airlink Modem
Wireless Telephone n
62n
60

Fig. 1

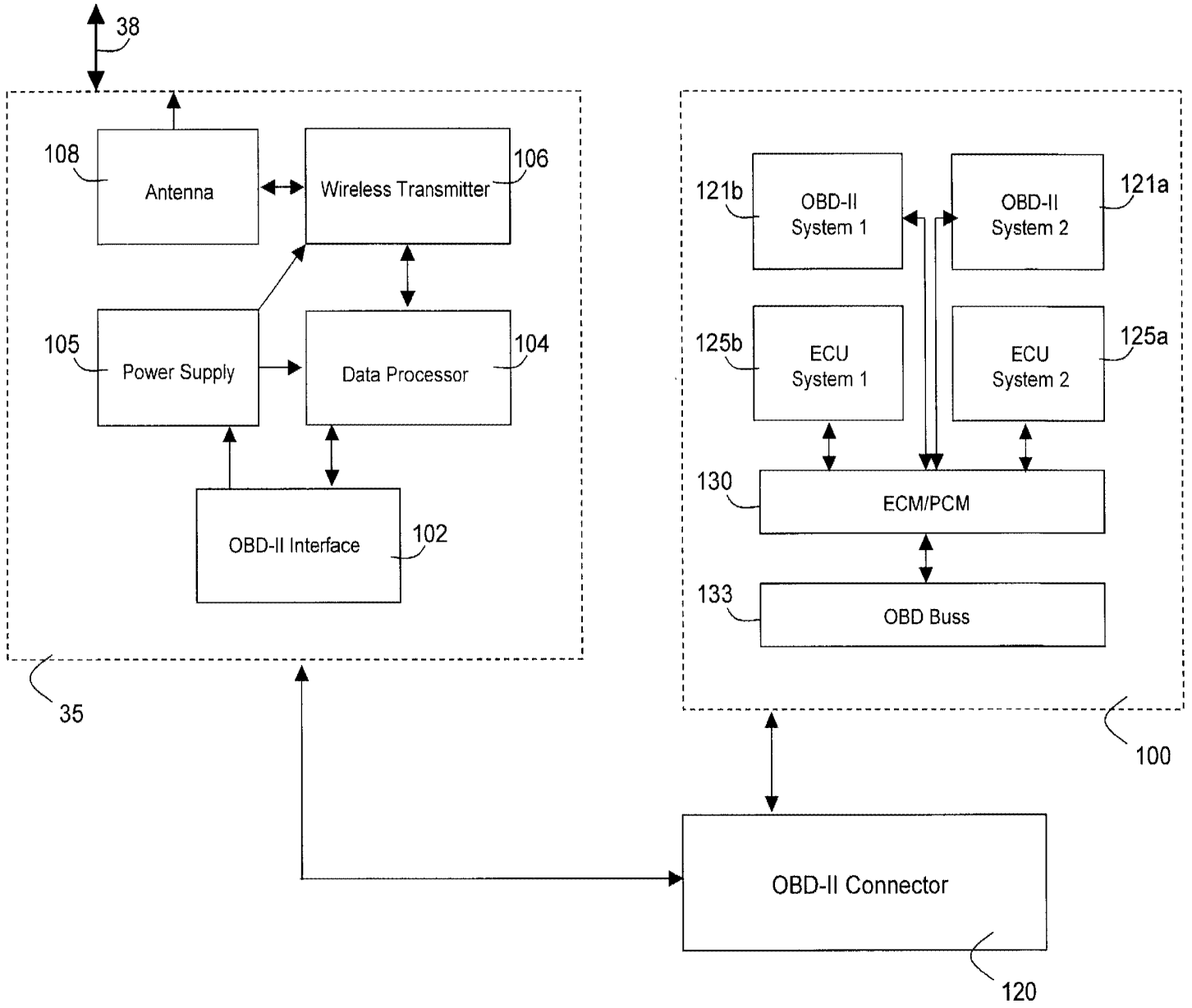

38
108
Antenna
Wireless Transmitter
106
105
Power Supply
Data Processor
104
OBD-II Interface
102
35
121b
OBD-II System 1
OBD-II System 2
121a
125b
ECU System 1
ECU System 2
125a
130
ECM/PCM
133
OBD Buss
100
OBD-II Connector
120

Fig. 2

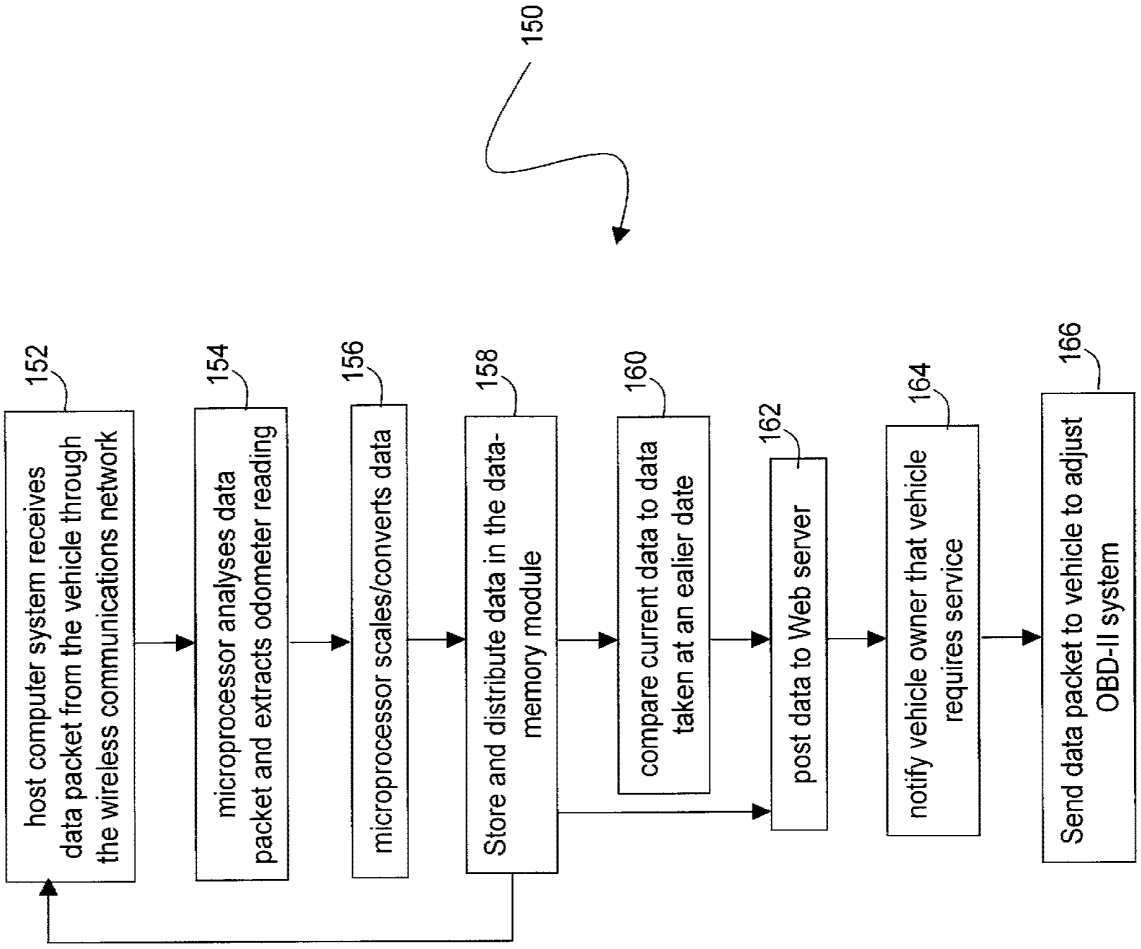


Fig. 3

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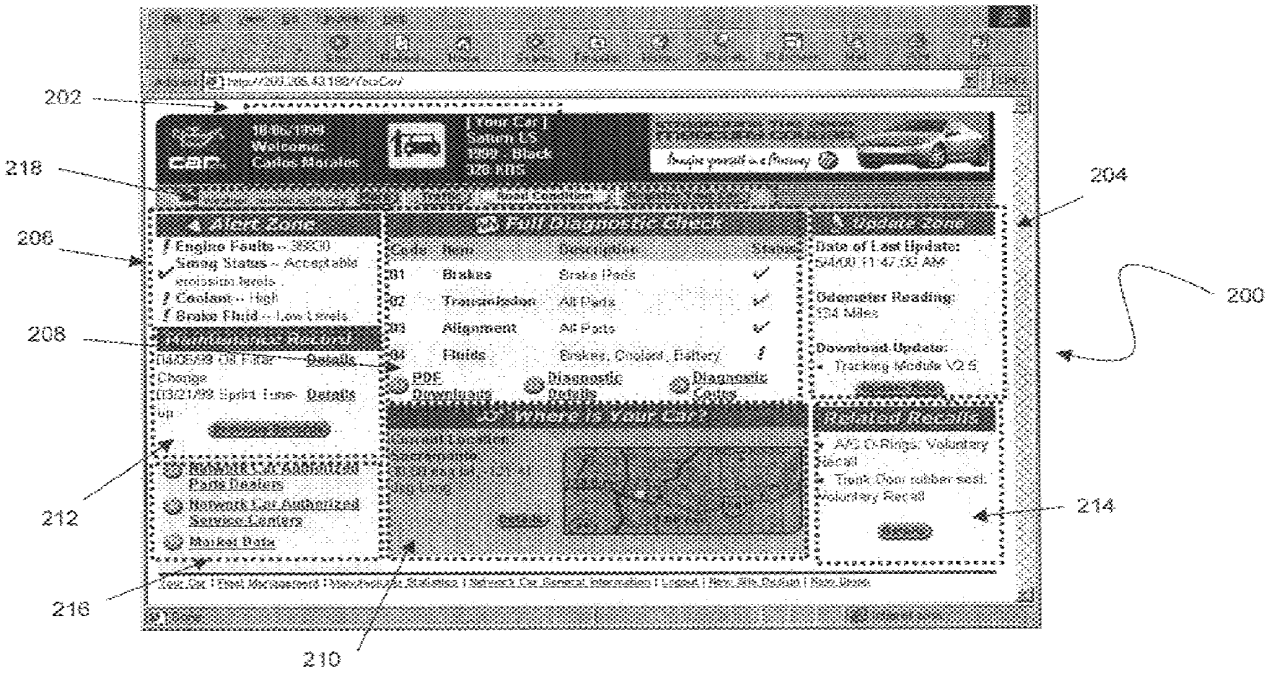


Fig. 4

WIRELESS DIAGNOSTIC SYSTEM AND METHOD FOR MONITORING VEHICLES

RELATED APPLICATION

Under 35 U.S.C. §119(e)(1), this application claims benefit of prior U.S. Provisional Applications No. 60/222,152, entitled "Wireless Diagnostic System for Characterizing a Vehicles Exhaust Emissions" filed Aug. 1, 2000; and No. 60/222,213, entitled "Wireless Diagnostic System for Characterizing One or More Vehicles' Mileage, Fuel Level, and Period of Operation" filed Aug. 1, 2000, both of which are incorporated herein by reference; and it claims benefit of prior U.S. Provisional Application No. 60/220,986 entitled "Wireless Diagnostic System for Vehicles" filed Jul. 25, 2000.

In addition, this application is related to the following U.S. Patent Applications that were filed on the same day as the present application: (1) U.S. Patent Application entitled "Wireless Diagnostic System for Characterizing a Vehicles Exhaust Emissions" with inventors Matthew J. Banet, Bruce Lightner, Diego Borrego, Chuck Myers, and Larkin H. Lowrey (U.S. Ser. No. 09/776,033); and (2) U.S. Patent Application entitled "Wireless Diagnostic System for Characterizing One or More Vehicles' Mileage, Fuel Level, and Period of Operation" with inventors Matthew J. Banet, Bruce Lightner, Diego Borrego, Chuck Myers, and Larkin H. Lowrey (U.S. Ser. No. 09/776,083), both of which are hereby incorporated by reference.

FIELD OF THE INVENTION

The present invention relates generally to the use of wireless communications and diagnostic systems in automotive vehicles.

BACKGROUND OF THE INVENTION

The Environmental Protection Agency (EPA) requires vehicle manufacturers to install on-board diagnostics (OBD) for emission control on their light-duty automobiles and trucks beginning with model year 1996. OBD systems (e.g., computer, microcontrollers, and sensors) monitor the vehicle's emission control systems to detect any malfunction or deterioration that causes emissions to exceed EPA-mandated thresholds. Such a system, for example, is an oxygen sensor located in the vehicle's exhaust manifold and tailpipe.

The EPA requires that all information monitored or calculated by OBD systems is made available through a standardized, serial 16-cavity connector referred to as the ALDL (Assembly Line Diagnostic Link) or OBD connector. All physical and electrical characteristics of this connector are standard for all vehicles sold in the United States after 1996. The EPA also mandates that, when emission thresholds are exceeded, diagnostic information characterized by OBD systems must be stored in the vehicle's central computer so that it can be used during diagnosis and repair.

A second generation of OBD systems ("OBD-II" systems) monitors a wide range of data that indicate the performance of the host vehicle. For example, these data can be analyzed to infer the vehicle's emission performance. In addition to emissions, OBD-II systems monitor vehicle speed, mileage, engine temperature, and intake manifold pressure. OBD-II systems also query manufacturer-specific data, such as data relating to the vehicle's engine, transmission, brakes, alarm, entertainment systems. OBD-II systems also monitor codes called diagnostic trouble codes, or "DTCs", which indicate a mechanic or electrical problem with the vehicle. DTCs are

the codes that typically light a vehicle's 'service engine soon' light. In total, OBD-II systems typically access more than 300 segments of data relating to the performance and make of the host vehicle.

In addition to the OBD-II systems, most vehicles manufactured after 1996 have electronic control units (ECUs) that control internal electromechanical actuators. Examples include ECUs that control fuel-injector pulses, spark-plug timing, and anti-lock braking systems. Most ECUs transmit status and diagnostic information over a shared, standardized electronic buss in the vehicle. The buss effectively functions as an on-board computer network with many processors, each of which transmits and receives data. The primary computers in this network are the vehicle's electronic-control module (ECM) and power-control module (PCM). The ECM typically accesses computers and microcontrollers that monitor or control engine functions (e.g., the cruise-control module, spark controller, exhaust/gas recirculator). The PCM typically controls or monitors ECUs associated with the vehicle's power train (e.g., its engine, transmission, and braking systems).

When a vehicle is serviced, data from the standardized buss can be queried using external engine-diagnostic equipment (commonly called 'scan tools') that connect to the above-described 16-cavity electrical connector (called an OBD-II connector for vehicles made after 1996). The OBD-II connector is typically located under the vehicle's dashboard on the driver's side. Data transferred through the connector to the scan tool yields data that identify a status of the vehicle and whether or not a specific component of the vehicle has malfunctioned. This makes the service process more efficient and cost-effective.

Some manufacturers include complex electronic systems in their vehicles to access and analyze the above-described data. These systems are not connected through the OBD-II connector, but instead are wired directly to the vehicle's electronic system. This wiring process typically takes place when the vehicle is manufactured. In some cases these systems transmit data through a wireless network.

BRIEF SUMMARY OF THE INVENTION

It is an object of the present invention to address the limitations of the conventional engine-diagnostic systems discussed above. Specifically, it is an object of the invention to both access and send data over the ODB-II connector using a remote, wireless system that connects to the Internet using an airlink. The device used for accessing and transmitting the data is simple, low-cost, and easy-to-install.

In one aspect, the invention features a method and apparatus for remotely characterizing a vehicle's performance. The method features the steps of: i) generating data representative of the vehicle's performance with at least one microcontroller disposed within the vehicle; ii) transferring the data through an OBD, OBD-II or equivalent electrical connector to a data collector/router that includes a microprocessor and an electrically connected wireless transmitter; iii) transmitting a data packet representing the data with the wireless transmitter over an airlink, to a wireless communications system, and then to a host computer; and iv) analyzing the data packet with the host computer. Once analyzed, the data can be used to characterize the vehicle's performance, e.g. evaluate the vehicle's electrical and mechanical systems. The data can also be used for other purposes, such as for insurance-related issues, surveys, and vehicle tracking.

The terms 'microcontroller' and 'microprocessor' refer to standard electronic devices (e.g., programmable, silicon-

based devices) that can control and/or process data. For example, a sensor disposed in the vehicle (e.g., an oxygen sensor) would be a microcontroller. "Airlink" refers to a standard wireless connection between a transmitter and a receiver.

In the above-described method, steps i)–iv) can be performed at any time and with any frequency, depending on the diagnoses being performed. For a 'real-time' diagnoses of a vehicle's engine performance, for example, the steps may be performed at rapid time or mileage intervals (e.g., several times each minute, or every few miles). Alternatively, other diagnoses (e.g. a 'smog check' that includes inferring the concentrations of hydrocarbons, oxides of nitrogen, or carbon monoxide) may require the steps to be performed only once each year or after a large number of miles are driven. Steps i)–iii) (i.e. the 'generating', 'transferring', and 'transmitting' steps) may be performed in response to a signal sent from the host computer to the vehicle. Alternatively, the vehicle may be configured to automatically perform these steps at predetermined or random time intervals.

The generating step typically includes generating data encoded in a digital format using the vehicle's electronic control unit (ECM) and/or power control unit (PCM). The data, for example, describes the vehicle's mileage, exhaust emissions, engine performance, engine temperature, coolant temperature, intake-manifold pressure, engine-performance tuning parameters, alarm status, accelerometer status, cruise-control status, fuel-injector performance, spark-plug timing, and/or a status of an anti-lock braking system. The data can also be a DTC or related code. The analyzing step features extracting data from the transmitted data packet, and then storing the data in a computer memory or database.

Once stored, the data is processed in a variety of ways. For example, the processing can simply involve determining the vehicle's odometer reading, and then comparing this reading to a schedule that lists recommended, mileage-dependent service events (e.g., a 5000-mile tune-up). Other algorithms include those that compare current data with data collected at an earlier time to dynamically characterize the performance of the vehicle. In another example, the algorithms compare the data with a predetermined numerical value or collection of values. For example, the data can correspond to a level of the vehicle's exhaust emissions or mileage; these values can then be compared to predetermined values for the particular vehicle to characterize its performance. More complex processing can include, for example, analyzing the data with a mathematical algorithm to predict the electrical or mechanical performance of the vehicle or a failure of a particular component.

After the processing step, the method can also include the step of sending an electronic text, data, or voice message to a computer, cellular telephone, personal digital assistant or wireless device to alert the end-user of a potential problem. The results from the analysis can also be displayed on similar devices connected to the World-Wide Web or the Internet.

In another embodiment, the method additionally includes the step of sending a second data packet from the host computer system over an airlink to the wireless communications system and then to the vehicle's data collector/router. In this case, the second data packet is processed by the microprocessor in the data collector/router to generate a signal that is sent to at least one of the vehicle's microcontrollers. There, the signal is processed and used, for example to adjust a setting in the particular microcontroller. The signal can also be used to update or distribute new software or firmware configurations to one or more of the vehicle's microcontrollers. In still other embodiments, the signal can be used to make 'tailored' readings of the vehicle's diagnostic information, e.g. to perform complex diagnoses (sometimes called 'drilling down') and isolate malfunctioning components in the vehicle's mechanical or electrical systems.

In another aspect, the invention features a method for sending data to an electrical system in a vehicle. The method features the steps of: i) generating with a host computer a data packet that affects at least one microcontroller disposed within the electrical system of the vehicle; ii) transmitting the data packet from the host computer over an airlink to a wireless communications system and then to a data collector/router (containing a microprocessor and wireless transmitter similar to that described above) disposed in the vehicle; iii) receiving the data packet with the wireless transmitter and sending it to the microprocessor; iv) processing the data packet with the microprocessor to generate data; and v) transmitting the data through an OBD, OBD-II or equivalent electrical connector to the microcontroller disposed within the vehicle's electrical system.

The invention has many advantages. In particular, wireless transmission of a vehicle's diagnostic data makes it possible to remotely identify potential problems without bringing the vehicle to a conventional service center. For example, the system can be configured so that when a DTC is generated by a vehicle the code associated with it is automatically sent to the web sites of a service center and the vehicle owner. This way, the service center can diagnose the problem, order the required parts, and schedule the service before the vehicle owner actually brings in the vehicle for service. In certain situations, potential problems with the vehicle can be remotely predicted and addressed before they actually occur. Moreover, data from the vehicle can be queried, stored and analyzed frequently and in real-time (i.e., while the vehicle is actually in use) to provide a relatively comprehensive diagnosis that is not possible in a conventional service center.

The device used to access and transmit the vehicle's data is small, low-cost, and can be easily installed in nearly every vehicle with an OBD-II connector in a matter of minutes. It can also be easily transferred from one vehicle to another, or easily replaced if it malfunctions.

Communication with the vehicle's OBD buss can also be bi-directional, making it possible to actually repair certain problems remotely. This, of course, means that in some cases the vehicle's problem can be both diagnosed and repaired in a completely remote and unobtrusive manner.

Data transmitted from the vehicle can also be analyzed for purposes unrelated to mechanical or electrical problems. For example, the data can be collected and analyzed in real-time to characterize driving patterns (e.g. a vehicle's speed), automotive part reliability, and emission characteristics. Lessors and renters of vehicles can remotely track mileage for billing purposes. Smog and emission certifications can be easily done in a completely remote manner. Data can also be analyzed to determine the vehicle's approximate location as a safety or anti-theft measure.

Another advantage of the invention is that data transmitted from a particular vehicle over a wireless airlink can be accessed and analyzed through the Internet without the need for expensive diagnostic equipment. Software used for the analysis can be easily modified and updated, and then used by anyone with access to the Internet. This obviates the need

for vehicle service centers to upgrade their diagnostic equipment for next-generation vehicles. The resulting data, of course, have many uses for vehicle owners, surveyors of vehicle performance (e.g., J. D. Power), manufacturers of vehicles and related parts, and vehicle service centers.

Sophisticated analysis of the above-mentioned data yields information that benefits the consumer, vehicle and parts manufacturers, vehicle service centers, and the environment.

These and other advantages of the invention are described in the following detailed disclosure and in the claims.

BRIEF DESCRIPTION OF DRAWINGS

The features and advantages of the present invention can be understood by reference to the following detailed description taken with the drawings, in which:

FIG. **1** is a schematic drawing of a wireless diagnostic system in wireless contact with a system of vehicles and the Internet;

FIG. **2** is a schematic drawing of a data collector/router used in each of the vehicles of FIG. **1**;

FIG. **3** is a flow chart describing analysis of data transmitted by the data collector/router by the host computer of FIG. **1**; and

FIG. **4** is a screen capture of a page from the Web server of FIG. **1**.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

FIG. **1** shows a wireless diagnostic system **10** that communicates with a collection of vehicles **30** using a host computer system **12** and a standard wireless communications system **15**. The wireless communications system **15** is, e.g., a conventional wireless telephone or paging system (e.g., Bell South's 'Mobitex' System). Each vehicle **32***a*, **32***b*, **32***n* in the collection of vehicles **30** features a data collector/router **35***a*, **35***b*, **35***n* that queries data generated by each vehicle's ECU and OBD-II systems through an OBD buss. After the query, each data collector/router **35***a*, **35***b*, **35***n* receives data from the host vehicle **32***a*, **32***b*, **32***n* and sends it as a data packet over a wireless airlink **38** to the wireless communication system **15**. The wireless communication system **15** features a standard hardware component **19** (e.g. a system of transmission 'base stations', computers, and switching and routing hardware) and software component **17** (e.g., a paging or cellular network) that relay the data packet through a digital line **40** to the host computer system **12**.

A data collection/transmission module **20** (e.g., a digital transmission line) in the host computer system **12** receives the data packet and then routes it to a microprocessor **21**. The microprocessor controls a data-analysis module **22** (e.g., hardware and software for statistical analysis) that processes the data packet, and a data-memory module **25** (e.g., a computer memory or database) that stores it. A web server **26** receives the processed data from the data-analysis **22** and data-memory modules **25** and makes it available to an Internet computer network **50** through a first network connection **52**. An end-user **56** accesses the data on the web server **26** through a second network connection **54** using the Internet computer network **50**.

Data packets from each data collector/router **35***a*, **35***b*, **35***n* can also be accessed directly over an airlink **70** by wireless telephones **62***a*, **62***b*, **62***n* in a wireless telephone network **60**. In this case each wireless telephone **62***a*, **62***b*, **62***n* has an airlink modem **65***a*, **65***b*, **65***n* that allows the data packet to be accessed directly. Alternatively, using the airlink modem **65***a*, **65***b*, **65***n*, the wireless telephones **62***a*, **62***b*, **62***n* can access processed data from the web server **26**, provided they have the appropriate software (e.g., web-browsing capabilities). In this case, the web server **26** formats the data in a manner suitable to wireless browsing (e.g. wireless access protocol).

The host computer system **12** typically works bi-directionally, i.e. it can both send data to and receive data from the data collector/routers **35***a*, **35***b*, **35***n* present on each vehicle **32***a*, **32***b*, **32***n*. For example, following a query, the host computer system **12** receives a data packet from a particular data collector/router. The system typically runs a real-time operating system (e.g., Windows NT® or Unix®) that manages multiple software programs conducting different functions (e.g. data processing and storage).

Data is typically sent from the host vehicle **32***a*, **32***b*, **32***n* to each data collector/router **35***a*, **35***b*, **35***n* at a predetermined time interval (e.g. a random or periodic time interval) that is programmed in either the data collector/router or the actual vehicle. For example, data can be sent on a daily basis. Alternatively, data can be queried in response to a signal sent from the host computer system **12** to the data collector/routers **35***a*, **35***b*, **35***n* present on each vehicle **32***a*, **32***b*, **32***n*.

Depending on the make and model of the vehicle, the data packet can contain hundreds of datum that describe, e.g.: i) basic properties of the power train (e.g., emission levels, fuel-system status, engine temperature, speed and odometer readings, anti-lock brake status, RPMs, fuel and intake manifold pressure); and ii) manufacturer-specific information (e.g., status of the door locks, airbags, and entertainment center). In total, for most vehicles there are typically more than 300 datum that can be included in the data packet.

Certain vehicle functions can also be controlled by sending a data packet to the vehicle. Data in the data packet can adjust, for example, settings in the ECUs and OBD-II sensors, certain engine properties, and indicator lights on the vehicle's dashboard. They can also be used to open door locks and reconfigure the vehicle's entertainment system.

In addition, data packets routed through the wireless communications system **15** can be analyzed to determine the vehicle's approximate location. This can be done with relatively low accuracy (within a few miles) by simply recording the location of a specific cellular tower in the hardware component **17** of the wireless communications system **15** that routes the data packet to the host computer system **12**. Recording the location of multiple base stations within range of the vehicle, and then analyzing these data using conventional algorithms (e.g., triangulation), increases the accuracy to which the vehicle's location is determined.

FIG. **2** shows a data collector/router **35** in electrical contact with a vehicle's OBD/ECU system **100**. The two systems connect through a conventional OBD-II connector **120** typically located under the vehicle's dashboard. The data collector/router **35** is contained in a small, portable housing that plugs directly into the connector **120** and can be easily installed and replaced.

The connector **120** has a serial, 16-cavity layout, with specific electrical connections in separate cavities supplying data and electrical power from the OBD/ECU system **100**. The connector electrically and mechanically matches an OBD-II interface **102** in the data collector/router **35**. Although the OBD-II connector **120** has a standard mechanical interface, data transmitted through it may have a format and pass through cavities that depend on the

vehicle's make and model. For example, Ford and General Motors vehicles use an OBD data format called J1850; data in this format pass through cavities **2** and **10**. Chrysler and most European and Asian manufacturers use a data format called ISO 9141-2 and pass data through cavities **7** and **15**. In a third format, called J2284, data is passed through cavities **6** and **14**.

The connector **120** also passes battery power (cavity **16**), automobile chassis ground (cavity **4**), and signal ground (cavity **5**) from the OBD/ECU system **100** through the OBD-II interface **102** to the data collector/router **35**. Using these connections, a power supply **105** receives the battery power, regulates it, and in turn drives a data processor **104** and wireless transmitter **106** within the data collector/router **35**.

Once received, data is passed to the data processor **104** (e.g., a microprocessor) that processes and formats it to form a data packet. As an example, a data packet and specifically formatted for Bell South's wireless 900 MHz mobitex MPAK system is described in Table below. Actual data describing the host vehicle is contained in the 516-byte data area described in Table 1.

TABLE 1

description of Mobitex MPAK data packet

Bytes	General Description	
3	source MAN (unique 24-Bit modem number)	
3	destination MAN (unique 24-Bit modem number)	
1	when sending:	Bit 0 = use mailbox Bit 1 = return positive acknowledgment Bit 2 = use address list Bits 3–7 = 0
	when receiving:	Bit 4 = may be ignored Bits 5–7 = traffic state
1	MPAK type	
0 or 22	address list	
0 to 512	data payload	

Once properly formatted as described in Table 1, the data packet is passed from the data processor **104** to the wireless transmitter **106**. The transmitter **106** transmits the data packet through a conventional wireless antenna **108** over an airlink **38** to a wireless communications system **(15)** shown in FIG. **1**. The data processor **104** formats the data packet according to the wireless communications system that transmits it.

Once transmitted, the data packet propagates through the wireless communication software and hardware components **(17** and **19** in FIG. **1)** of the communication network (e.g., the Mobitex network). Typically in this case the data packet is routed to a 'point of presence' or 'POP' in the network, where it is then transferred over a digital line (e.g., **40** in FIG. **1)** to the host computer system.

The data area described in Table 1 contains data generated by the vehicle's OBD/ECU system **100**. As described above, this system **100** functions effectively as an on-board computer network that generates, transmits, and receives data. For simplicity, the system **100** in FIG. **2** contains two OBD-II systems **121***a*, **121***b* and two ECU systems **125***a*, **125***b;* it is analogous to more complex OBD-II and ECU systems employed in actual vehicles. The OBD-II systems **121***a*, **121***b* are microcontrollers that monitor the various vehicle-related properties described above. The ECU systems **125***a*, **125***b* receive and send data to electromechanical actuators that control, e.g., fuel-injector pulses, spark-plug timing, and anti-lock braking systems.

The OBD-II systems **121***a*, **121***b* and ECU systems **125***a*, **125***b* are controlled by the vehicle's ECM/PCM **130**. In some cases, the ECM/PCM **130** receives data from these systems and routes it over a shared electronic OBD buss **133**. Alternatively, after receiving the data the ECM/PCM **130** converts it to "fail" or "malfunction" codes that are then routed over the shared electronic buss **133**. In both cases, the OBD buss serially transmits data to the data collector/router **35** through the electrically connected OBD connector **120**.

Once collected and sent to the host computer system (**12** in FIG. **1**), the data packet can be analyzed in a variety of different ways. As an example, FIG. **3** shows a flow chart describing one method **150** of how data is analyzed and then made available to end-users through the Internet. A wide number of different data-analysis methods are possible; the one shown in FIG. **3** was chosen because of its simplicity.

In the data-analysis method **150**, the host computer system receives a data packet from the vehicle through the wireless communications network (step **152**). The data packet has a format shown, e.g., in Table 1 above, and contains a wide range of information that characterizes the vehicle's performance. Once received, the packet is analyzed and an odometer reading (e.g., mileage) from the vehicle is extracted (step **154**). If necessary, the microprocessor then scales the odometer reading (e.g., converts kilometers to miles) or converts the format used in the data packet (e.g., a manufacturer-specific format) to one that is easily recognized by the end-user (step **156**). At this point the odometer reading and other data within the data packet are distributed and stored in the data-memory module (e.g. a database) of the host computer system (step **158**). Some data may be simply disregarded during this step. This portion (steps **152**, **154**, **156**, and **158**) of the method may be repeated at this point to generate additional data.

All the data (e.g. the vehicle's mileage collected at different time or mileage intervals) can be posted directly on a Web page on the Web server (step **162**) where it is accessible by the end-user through the Internet. The data can also be analyzed further. For example, a current odometer reading can be compared to one recorded at an earlier date (step **160**) to determine how many miles the vehicle has traveled since its last oil change. If this value exceeds that recommended for the particular vehicle, the host computer system can notify the user through electronic mail that the vehicle requires service (step **164**). The method **150** can also be used to remotely adjust settings in the vehicle's OBD-II systems. For example, at this point the host computer system could send a data packet to the vehicle to reset the trip odometer to a new value (step **166**).

FIG. **4** shows a sample Web page **200** from a Web server that displays data processed using a method similar to that shown in FIG. **3**. Access to Web page is typically password-protected, thereby only allowing end-users with the correct password to access data for a particular vehicle.

The Web page **200** features a region **202** that describes the owner of the vehicle and its make and model. The page **200** also has a region **204** that describes the time, date, and odometer readings registered at its last update. Data describing vehicle problems (e.g., engine faults, coolant and brake fluid levels, emission status) that may require immediate attention are displayed in region **206**. Data used to diagnose the overall condition of the vehicle (e.g., brake and transmission status, wheel alignment) are displayed in region **208**. More data relating to these properties can be obtained by clicking the appropriate buttons ("Diagnostic Details", "Diagnostic Codes") in this region. The page **200** also

includes a region **210** that provides the approximate location of the vehicle. As described above, the vehicle's location is determined by recording the location of one or more base stations used to send the latest data packet through the wireless communications system. The page also includes a region **212** that features data describing the general history and maintenance of the vehicle. A related region **214** describes parts for the particular vehicle that have been recently recalled. A region **216** describes the locations of parts dealers and local service stations for the particular vehicle, while the region **218** provides access to features that may affect travel, such as weather, traffic, road conditions, and the status of the vehicle's registration.

Other embodiments are within the scope of the invention. For example, the components used in the data collector/router (particularly the wireless transmitter) may be optimized for different types of wireless communications systems. These systems include wireless telephone and paging systems, Bluetooth®, and similar systems. Similarly, the format of the data packet may also be adjusted for transmission over different types of networks. In general, any components in the data collector/router, and any format of the data packet, can be used to accomplish the general method of the invention.

Likewise, a wide range of mathematical algorithms can be used to analyze data once it is extracted from the data packets. These algorithms range from the relatively simple (e.g., lessors and renters determining the mileage on a vehicle for billing purposes) to the complex (e.g., predictive engine diagnoses using 'data mining' techniques). Data analysis may be used to characterize an individual vehicle as described above, or a collection of vehicles. Algorithms used to characterize a collection of vehicles can be used, for example, for remote vehicle or parts surveys, to characterize emission performance in specific geographic locations, or to characterize traffic.

Other embodiments of the invention include algorithms for analyzing data to characterize vehicle accidents and driving patterns for insurance purposes; algorithms for determining driving patterns for use-based leasing; and algorithms for recording vehicle use and driving patterns for tax purposes. In general, any algorithm that processes data collected with the above-described method is within the scope of the invention.

Similarly, the temporal or mileage frequency at which data is collected can be adjusted to diagnose specific types of problems. For example, characterization of certain types of vehicle performance indicators, such as emissions, may need to be monitored relatively frequently. Other properties, such as mileage and fluid levels, may only need to be monitored every few days, or in some cases just a few times each year.

Once the data is analyzed, the Web page used to display the data can take many different forms. Different Web pages may be designed and accessed depending on the end-user. For example, individual users may have access to Web pages for their particular vehicle. Conversely, vehicle service providers (e.g. providers that change oil or certify a vehicle's emissions) may have access to Web pages that contain data (e.g., mileage and emissions data) from a wide range of vehicles. These data, for example, can be sorted and analyzed depending on vehicle make, model, and geographic location. Web pages may also be formatted using standard wireless access protocols (WAP) so that they can be accessed using wireless devices such as cellular telephones, personal digital assistants (PDAs), and related devices.

In other embodiments, additional hardware can be added to the in-vehicle unit. For example, hardware for global-positioning systems (GPS) may be added so that the location of the vehicle can be monitored along with its data.

In other embodiments, data from the data collector/router in the vehicle can be analyzed and used for: remote billing/payment of tolls; remote smog and emissions checks; remote payment of parking/valet services; remote control of the vehicle (e.g., in response to theft or traffic/registration violations); and general survey information.

Still other embodiments are within the scope of the following claims.

What is claimed is:

1. A method for characterizing a vehicle's performance, comprising the steps of:

retrieving data representative of the vehicle's performance through the vehicle's OBD or OBD-II connector according to a communication protocol at a predetermined time interval with a data collector/router comprising:

i) an electrical connector that connects to the OBD or OBD-II connector;

ii) a microprocessor configured to retrieve and transmit data at the predetermined time interval, and

iii) a wireless transmitter in electrical contact with the microprocessor;

wirelessly transmitting the data with the wireless transmitter to a wireless communications system and then to a host computer; and

analyzing the data with the host computer.

2. The method of claim **1**, wherein the data is serially transferred through an OBD-II connector to the data collector/router.

3. The method of claim **2**, wherein the protocol used to transfer data through the OBD-II connector is J1850, ISO 9141-2, J2284, or equivalents thereof.

4. The method of claim **1**, wherein the generating step further comprises generating data encoded in a digital format using an electronic control unit and/or power control unit.

5. The method of claim **4**, wherein the generating step further comprises generating data that describes at least one of the vehicle's mileage, exhaust emissions, engine performance, engine temperature, coolant temperature, intake-manifold pressure, vehicle-identification number, engine-performance tuning parameters, alarm status, accelerometer status, fuel-injector performance, spark-plug timing, and a status of an anti-lock braking system.

6. The method of claim **1**, wherein the analyzing step further comprises extracting data from the data packet corresponding to a specific property of the vehicle and storing the data in a computer memory or database.

7. The method of claim **6**, wherein the analyzing step further comprises processing the data stored in the computer memory or database with an algorithm.

8. The method of claim **7**, wherein the processing further comprises analyzing the data with a mathematical algorithm to characterize or predict the electrical or mechanical performance of the vehicle.

9. The method of claim **7**, wherein the processing further comprises comparing the data with data collected at an earlier time to characterize or predict the performance of the vehicle.

10. The method of claim **7**, wherein the processing further comprises comparing the data with a predetermined numerical value or collection of values to characterize the performance of the vehicle.

11. The method of claim 7, wherein the data corresponds to a level of exhaust emissions for the vehicle, and the processing comprises comparing the level of exhaust emissions to a predetermined value for the particular vehicle to characterize the performance of the vehicle.

12. The method of claim 7, wherein the data corresponds to a mileage for the vehicle, and the processing comprises comparing the mileage to a predetermined value for the particular vehicle to characterize the performance of the vehicle.

13. The method of claim 1, further comprising sending an electronic text, data, or voice message to a computer, cellular telephone, or wireless device after the data is analyzed.

14. The method of claim 1, further comprising displaying results from the analysis on a computer, cellular telephone, or wireless device connected to the World-Wide Web or the Internet.

15. The method of claim 1, wherein the results are displayed on a page on the World-Wide Web or the Internet.

16. The method of claim 1, wherein the method further comprises the step of wirelessly sending a second data packet from the host computer system to the wireless communications system and then to the data collector/router disposed in the vehicle.

17. The method of claim 16, wherein the second data packet is processed by the microprocessor in the data collector/router to generate a signal, and the signal is sent to at least one microcontroller disposed within the vehicle.

18. The method of claim 17, wherein the signal is processed by the microcontroller and used to adjust it.

19. A system for characterizing a vehicle's performance comprising:

a data collector/router comprising:

an electrical connector configured to connect to the vehicle's OBD or OBD-II connector;

a microprocessor in electrical contact with the electrical connector, the microprocessor configured to retrieve data generated by the vehicle at a predetermined time interval; and

a wireless transmitter configured to receive the data from the microprocessor and wirelessly transmit it to a network;

a first computer system comprising a processor configured to receive the data from the network; and

a second computer system configured to analyze the data.

20. The system of claim 19, wherein the data collector/router is configured to serially transfer data through an OBD-II connector to the data collector/router.

21. The method of claim 19, wherein the data collector/router is configured to transfer data using a J1850, ISO 9141-2, or J2284 protocol, or an equivalent thereof.

22. The system of claim 19, wherein the processor in the host computer system is configured to analyze the data with a mathematical algorithm to predict or characterize the performance of the vehicle.

23. The system of claim 19, wherein the processor in the host computer system is configured to compare the data with other data from a data packet collected from the vehicle at an earlier time to characterize the performance of the vehicle.

24. The system of claim 19, wherein the processor in the host computer system is configured to compare the data with a predetermined numerical value or collection of values to characterize the performance of the vehicle.

25. The system of claim 19, wherein the data corresponds to a level of exhaust emissions for the vehicle, and the processor in the host computer system is configured to compare the level of exhaust emissions to a predetermined value for the particular vehicle to characterize the performance of the vehicle.

26. The system of claim 25, wherein the data is analyzed to infer the concentration of hydrocarbons, oxide of nitride, or carbon monoxide emitted from the vehicle.

27. The system of claim 19, wherein the data corresponds to a mileage for the vehicle, and the processor in the host computer system is configured to compare the mileage to a predetermined value for the particular vehicle to characterize the performance of the vehicle.

28. A system for characterizing a vehicle's performance comprising a data collector/router comprising:

an electrical connector configured to connect through the vehicle's OBD or OBD-II connector;

a microprocessor in electrical contact with the electrical connector, the microprocessor configured to retrieve data generated by the vehicle at a predetermined time interval; and

a wireless transmitter configured to receive the data from the microprocessor and wirelessly transmit it to a network.

29. The system of claim 28, wherein the microprocessor is additionally configured to serially transfer data through the OBD, OBD-II or equivalent electrical connector.

30. The method of claim 29, wherein the microprocessor is configured to transfer data using a J1850, ISO 9141-2, or J2284 protocol, or an equivalent thereof.

31. A system for characterizing a vehicle's performance comprising a data collector/router comprising:

an on-board diagnostic connector configured to connect to a serial connector located in the vehicle's interior;

a microprocessor in electrical contact with the on-board diagnostic connector, the microprocessor configured to retrieve data generated by the vehicle at a predetermined time interval;

a wireless transmitter integrated in the data collector/router configured to receive the data from the microprocessor and wirelessly transmit it to a network; and

a housing containing the microprocessor and the wireless transmitter.

32. The system of claim 31, wherein the serial electronic connector is located underneath the vehicle's steering column.

33. The system of claim 31, wherein the microprocessor is additionally configured to serially transfer data through the serial connector.

34. The method of claim 33, wherein the microprocessor is configured to transfer data using a J1850, ISO 9141-2, or J2284 protocol, or an equivalent thereof.

35. A method for sending data to an electrical system in a vehicle, comprising the steps of:

generating with a host computer data that affects at least one microcontroller disposed within the electrical system of the vehicle;

wirelessly transmitting the data from the host computer to a wireless communications system and then to a data collector/router disposed in the vehicle, the data collector/router comprising:

i) an electrical connector that connects to an OBD or OBD-II connector and comprises electrical connections for multiple vehicle models;

ii) a microprocessor, and

iii) a wireless transmitter in electrical contact with the microprocessor;

receiving the data with the wireless transmitter;

sending the data from the wireless transmitter to the microprocessor;

processing the data with the microprocessor to generate processed data; and

transmitting the processed data through the electrical connector to the microcontroller disposed within the vehicle's electrical system.

36. A method for characterizing a vehicle's performance, comprising the steps of:

retrieving data representative of the vehicle's performance through an OBD or OBD-II connector at a predetermined time interval with a data collector/router comprising:

i) an electrical connector that connects to the OBD or OBD-II connector and comprises electrical connections for multiple vehicle models;

ii) a microprocessor, and

iii) a wireless transmitter in electrical contact with the microprocessor;

generating data representative of the vehicle's location with a global positioning system disposed within the vehicle;

wirelessly transmitting a first set of data representative of the vehicle's performance with the wireless transmitter to a wireless communications system and then to a host computer;

wirelessly transmitting a second set of data representative of the vehicle's location with the wireless transmitter to a wireless communications system and then to a host computer;

analyzing the first and second sets of data with the host computer to generate analyzed data; and

displaying the analyzed data on one or more web pages accessible on the internet.

* * * * *

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. *90/013,587*.

PATENT NO. *8032278*.

ART UNIT *3993*.

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Office Action in Ex Parte Reexamination	Control No. 90/013,587	Patent Under Reexamination 8032278	
	Examiner MATTHEW C. GRAHAM	Art Unit 3993	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

a. ☒ Responsive to the communication(s) filed on *1/8/2016, 2/26/2016 and 3/8/2016* .
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

b. ☐ This action is made FINAL.

c. ☐ A statement under 37 CFR 1.530 has not been received from the patent owner.

A shortened statutory period for response to this action is set to expire *2* month(s) from the mailing date of this letter. Failure to respond within the period for response will result in termination of the proceeding and issuance of an *ex parte* reexamination certificate in accordance with this action. 37 CFR 1.550(d). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).** If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☐ Notice of References Cited by Examiner, PTO-892.
2. ☒ Information Disclosure Statement, PTO/SB/08.
3. ☐ Interview Summary, PTO-474.
4. ☐ _____.

Part II SUMMARY OF ACTION

1a. ☒ Claims *1-22* are subject to reexamination.
1b. ☐ Claims _____ are not subject to reexamination.
2. ☐ Claims _____ have been canceled in the present reexamination proceeding.
3. ☐ Claims _____ are patentable and/or confirmed.
4. ☒ Claims *1-22* are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ The drawings, filed on _____ are acceptable.
7. ☐ The proposed drawing correction, filed on _____ has been (7a) ☐ approved (7b) ☐ disapproved.
8. ☐ Acknowledgment is made of the priority claim under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the certified copies have
   1 ☐ been received.
   2 ☐ not been received.
   3 ☐ been filed in Application No. _____ .
   4 ☐ been filed in reexamination Control No. _____.
   5 ☐ been received by the International Bureau in PCT application No. _____.
   * See the attached detailed Office action for a list of the certified copies not received.
9. ☐ Since the proceeding appears to be in condition for issuance of an *ex parte* reexamination certificate except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte* Quayle, 1935 C.D. 11, 453 O.G. 213.
10. ☐ Other: _____

cc: Requester (if third party requester)

NON-FINAL REJECTION

1. Receipt is acknowledged of the Patent Owner's Statement on 1/08/2016 and the Third Party Requester's Response on 3/8/2016.

2. The Flick '278 Patent is a continuation in part of application 11/076,259. This parent application did not disclose nor claim the multi-vehicle capability and the bus extending throughout the vehicle as described and claimed in Flick '278. Accordingly, the earliest effective filing date for Flick '278 is July, 3, 2007.

3. A substantial new question of patentability affecting claims 1-22 of United States Patent Number 8,032,278 to Flick is raised by the requester in the response of 3/8/2016 for *ex parte* reexamination.

In light of the Patent Owner's Response of 1/8/2016, the requester contends that the following US Patents and Patent Publication raise a substantial new question of patentability:

A. U.S. Patent No. 6,009,363 to Beckert et al. (Beckert);

B. U.S. Patent No. 7,484,008 to Gelvin et al. (Gelvin);

C. U.S. Publication No. 2001/0033225 to Razavi et al. (Razavi).

a.) Beckert teaches a multi-vehicle compatible tracking unit in the form of a vehicle computer system (see col. 2, lines 10-17), which is for a vehicle comprising a vehicle data bus extending throughout the vehicle (see col. 1, lines 32 – 38);

a vehicle position determining device in the form of a GPS chipset (see col. 6, lines 50-53, and FIG. 3); a wireless communications device in the form of a wireless Internet link 76 (see col. 5, lines 9 - 12, and FIGS. 1 and 3);

a multi-vehicle compatible controller in the form of the computer module 65 for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information (see col. 5, lines 9 - 12);

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles (see col. 1, lines 32 – 35); and

multiple different types of downloading interfaces (see col. 5, lines 1 - 12) for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller (see col. 2, lines 15-17).

b.) Gelvin teaches a multi-vehicle compatible tracking unit in the form of the WINS vehicle internetwork architecture (see FIG 30), which is for a vehicle comprising a vehicle data bus extending throughout the vehicle (see Fig. 3; col. 1, lines 49 - 54; col. 8, lines 51 - 53 and col. 8, lines 63 - 67 – col. 9, lines 1 - 7);

a vehicle position determining device in the form of a GPS device a wireless communications device in the form of cellular modems (see Fig. 3; col. 9, lines 1 -4);

a multi-vehicle compatible controller in the form of the gateway 302 for cooperating with said vehicle position determining device (see Fig. 3; col. 8, lines 46-48; col. 8- lines 51 -53; col. 18, lines 23- 31; col. 18, lines 57 - 60) and said wireless

communications device to send vehicle position information (see col. 9, lines 1 - 4, col. 18, lines 57 - 60, and col~ 31, lines 43 - 47);

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication see with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles (see Fig. 3; col. 8, lines 63 - 67- col. 9, lines 1 -7); and

multiple different types of downloading interfaces (see col. 7, lines 1 - 4) for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multivehicle compatible controller (see col. 23, line 64 - col. 24, line 4).

c.) Razavi teaches a multi-vehicle compatible tracking unit in the form of an in-car sub-network (see the Abstract and Fig. 2) which is for a vehicle comprising a vehicle data bus extending throughout the vehicle and interfaced via OBD and/or SAE standard J1979 and/or J1850 buses (see paragraph [0024]); a vehicle position determining device in the form of a GPS receiver (see paragraph [0031]);

a wireless communications device in the form of a wireless modem, a cellular phone, and/or wireless Ethernet; a multi-vehicle compatible controller in the form of a computer platform within the in- car sub-network for cooperating with said vehicle position determining device (see paragraph [0033]) and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles (see paragraph [0037]); and

multiple different types of downloading interfaces (see paragraph [0060]) for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller (see the disclosure regarding downloading vehicle upgrades that result in different device codes being received via devices including a wireless modem in paragraph [0060]).

Accordingly Beckert, Gelvin and Razavi each teach a vehicle computer system including a wireless communications device, a vehicle location determination device, a downloading interface, and a controller capable of communicating with a variety of vehicle devices.

There is a substantial likelihood that a reasonable examiner would have considered these teachings in Beckert, Gelvin and Razavi to be important in the determination of patentability of claims 1-22 of Flick '278. Accordingly, Beckert, Gelvin and Razavi each raises a substantial new question of patentability, which question has not been previously raised.

4. The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-22 are rejected under pre-AIA 35 U.S.C. 102(b) as being anticipated by Suman.

Suman discloses a multi-vehicle compatible tracking unit for a vehicle comprising a data bus, such as a multiplex bus. See col. 8, line 58-col. 9, line 16; Figs. 3, 5, 44, 45; see also col. 36, line 53-col. 37, line 17. This bus extends throughout the vehicle to the broad degree claimed. Suman notes that the multiplexing scheme for such a bus is set forth in SAE J1850. Suman further discloses a GPS or DGPS as a vehicle position determining device. See, Figs. 3, 5. Suman also discloses a transmitter (see Figs. 1a, 1b, 2; col. 3, lines 1-3; col. 7, lines 26-30) and a receiver (see Figs. 1b, 3, 44; col. 3, lines 1-3; col. 7, lines 31-34) for wirelessly receiving signals from the transmitter. In one embodiment the receiver is a cell phone (and thus also includes a transmitter) coupled to the vehicle bus. See Figs. 5, 45; col. 36, line 53- col. 37, line 17. Suman also shows a controller that cooperates with the GPS device and the wireless communication device to send vehicle position information. See col. 2 lines 3-10; see also col. 6, lines 19-49; col. 11, lines 8-13; col. 12, lines 7-13; col. 14, lines 11-21. Suman discloses that the controller is coupled to the vehicle data bus for communication with at least one vehicle device, using a corresponding vehicle device code, from among a plurality of codes for different vehicles. As the device uses different vehicle codes for different vehicles it is thus multi-vehicle compatible. The devices include sensors and controls for doors, windows, ignition, speedometer, RPMs, fuel level, turn signals, lights, gears,

temperature, oil pressure, defroster, headlights, etc.). See Figs. 3, 5, 44, 45, 47; see also col. 43, lines 27-47. As noted in col. 37, lines 15 - 17: "The multiplexing scheme is set forth in SAE standard J1850 and is universally used in the automotive industry." It is also inherent that the J1850 bus described in the Suman '537 patent is included in a variety of different makes and models of vehicles per the federally mandated standard.

Suman notes in col. 36, lines 31-52: "To achieve these aspects and other advantages, the vehicle accessory control system of the present invention includes a plurality of electrically-operated vehicle accessories, a receiver to be mounted in a vehicle for receiving RF signals from a land-based transmitter, and a control circuit coupled to the receiver and to the vehicle accessories for controlling the operation of the vehicle accessories in accordance with a control program. The RF signals include an address uniquely identifying the vehicle and a reprogramming signal for reprogramming the operation of at least one of the vehicle accessories. The control circuit includes an input interface for receiving information regarding a plurality of sensed conditions, control means for controlling the operation of the vehicle accessories in accordance with the control program and in response to sensed conditions received from the input interface. The control circuit further includes reprogramming means for selectively reprogramming the control program in response to the detection of an RF signal including an address identifying the vehicle and the reprogramming signal, to selectively change the manner in which the control means controls the operation of at least one of the vehicle accessories."

Regarding claim 2, Suman discloses that the cellular phone could be connected through the vehicle bus, or a wired RS-232 serial connection of the controller, and thus the RS-232 connector provides an additional wired connection. See col. 42, line 52 - col. 43, line 6,

Regarding claim 3, it is inherent that a cellular telephone connected to a RS-232 serial port can be connected and disconnected.

Regarding claim 4, Suman teaches a wireless signal download interface-- see col. 36, lines 31-52.

Regarding claim 5, cellular and paging systems can inherently temporarily connect to the network to connect to a "downloadinq device".

Regarding claim 6, Suman teaches at col. 37, lines 1 - 17: "Microcontroller 735 includes an integral non-volatile memory for retaining data when the vehicle is not in operation. In vehicles including a single wire multiplex bus 742, an output terminal 743 of microcontroller 735 is coupled to the input of a multiplex communication circuit 744 comprising a 728 pin integrated circuit which is coupled by output conductor 747 to a single wire data bus 742. The average data rate for the multiplex circuit 744 is 10.4 kilobits per second. Microcontroller 735 communicates with circuit 744 through its SPI serial interface port 743. When circuit 744 receives a message over the bus 742, it interrupts the microprocessor, which in turn initiates communication with the circuit through its SPI port. Microprocessor 735 then reads the data from the SPI register and acts upon the information. The multiplexing scheme is set forth in SAE standard 11850 and is universally used in the automotive industry."

Regarding claim 7, Suman teaches that the vehicle code is for writing to the vehicle in that the system allows for personalization.

Regarding claim 8, Suman teaches reprogramming. See col. 44, lines 7 – 16. "Referring to FIG. 48A during system initialization, microcontroller 735 begins the execution of the main control program by clearing its RAM, recalling the last user ID by reading the same from the non-volatile memory, and reading a flag table associated with the last ID (step 1201). Initially, the associated flag table may be set in the factory or by the dealer to specify default values. As described below, the flags in the flag table may subsequently be modified by a reprogramming signal included in either a paging signal or a cellular RF control signal having the vehicle's ID." Suman also notes that to "achieve these aspects and other advantages, the vehicle accessory control system of the present invention includes a plurality of electrically-operated vehicle accessories, a receiver to be mounted in a vehicle for receiving RF signals from a land-based transmitter, and a control circuit coupled to the receiver and to the vehicle accessories for controlling the operation of the vehicle accessories in accordance with a control program. The RF signals include an address uniquely identifying the vehicle and a reprogramming signal for reprogramming the operation of at least one of the vehicle accessories. The control circuit includes an input interface for receiving information regarding a plurality of sensed conditions, control means for controlling the operation of the vehicle accessories in accordance with the control program and in response to sensed conditions received from the input interface. The control circuit further includes reprogramming means for selectively reprogramming the control program in response to

the detection of an RF signal including an address identifying the vehicle and the reprogramming signal, to selectively change the manner in which the control means controls the operation of at least one of the vehicle accessories." See col. 36, lines 31-52.

Regarding claims 9-10, Suman teaches a remote control function that includes a security function. "It is an additional aspect of the present invention to provide a system allowing for remote control of vehicle functions and accessories using an RF signal. Thus, vehicle owners may lock their vehicle doors, roll up their windows, or activate an alarm system from any location in response to an RF signal. Further, the vehicle owner may use the system of the present invention to immobilize a vehicle to insure safe storage of the vehicle." See col. 2, lines 24 -32.

Regarding claim 11,Suman teaches at col. 9, line 65 - col. 10, line 4: "In addition, the vehicle communication and control system includes a navigation module 38 coupled to a suitable receiving antenna 40. In the preferred embodiment, module 38 is a commercially-available GPS module of the type manufactured by a number of suppliers including Motorola, Inc., Trimble Navigation, Ltd., or the like."

Regarding claim 12, the various components are housed within the vehicle.

Regarding claim 13, note the above discussions of claim 1, 3 and 5.

Regarding claims 14-15, note the above discussions of claims 6 and 7.

Regarding claims 16-17, note the above discussion of claims 8 and 9.

Regarding claim 18-22, note the previous discussion of claims 1-8.

6. The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-22 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Spaur in view of Johnson.

Spaur teaches a vehicle data bus 46 and teaches that a wireless communications device can be utilized to download enabling data in a variety of forms including received information associated with vehicle devices and executable software downloaded from a remote site: "since bi-directional communications involving a vehicle are conducted wirelessly for at least a portion of the communications link, it is necessary for the Internet to communicate with an appropriate interface or network that wirelessly links with the vehicle. In one embodiment, the cellular digitized packet data (CDPD) network provides the desired link including arrangement of information being communicated and where the destination site, namely the particular vehicle, is found in the network." (See col. 2, lines 37 - 46).

Spaur also notes that a “combination of controller related components are containable in a vehicle for responding to requests from remote sites, obtaining and storing information associated with vehicle devices and running executable software that may be available in the program memory of the controller or downloaded from the remote site, while handling and configuring information including data that is

communicative with the remote site over an established network, such as the Internet." (See col. 4, line 64 - col. 5, line 5).

Furthermore, Spaur teaches that “the controller in the vehicle is also associated with an interface for communication with one or more available systems, such as an RS232 connection, an Ethernet connection and/or a PCMCIA unit. In a related embodiment, the controller includes a direct communications port for receiving and sending information without requiring the wireless device and the Internet connection to the wireless device." (See col. 4, lines 38 - 45).

The claimed invention differs only in the use of the location detection.

Johnson teaches that the “vehicle 200 is further equipped with a GPS receiver unit (internal to the control and communications unit 201) which is connected to a GPS antenna 220. The GPS receiver unit is a multi-channel GPS receiver and can thus receive time and location signals from multiple GPS satellites simultaneously." (See col. 4, lines 51 - 56).

It would have been obvious to one of ordinary skill in the art to have incorporated the global positioning system receiver in the system of Spaur in view of the teachings of Johnson in order to incorporate location determination capabilities into the controller of Spaur in those vehicles that do not have a global positioning system receiver incorporated into the vehicle.

A complete listing of how Spaur and Johnson relates to claims 1-22 is included in the request (Exhibit F) and is hereby incorporated by reference.

8. Claims 1-22 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Spaur in view of Song.

Note the previous discussion of Spaur.

The claimed invention differs only in the use of the location detection.

Song teaches "an inexpensive, accurate system for determining a vehicle's location using the existing base stations and signals of a cellular telephone network." (See, col. 2, lines 57 - 60).

It would have been obvious to one of ordinary skill in the art to have incorporated the global positioning system receiver in the system of Spaur in view of the teachings of Song in order to incorporate location determination capabilities into the controller of Spaur using cellular capabilities as taught by Song.

A complete listing of how Spaur and Johnson relates to claims 1-22 is included in the request (Exhibit E) and is hereby incorporated by reference.

9. Claims 1-22 are rejected under pre-AIA 35 U.S.C. 102(b) as being anticipated by Beckert.

Note the above discussion of Beckert in paragraph 3.

A complete listing of how Beckert relates to claims 1-22 is included in the response by the Third Party Requester on 3/8/2016 and is hereby incorporated by reference.

10. The background litigation supplied by the Patent Owner is noted. Patent Owner contends that Suman was considered by the examiner in the patent at hand. However, this is incorrect. Suman was not cited or considered in the '278 patent even

though it was cited in previous and copending patent applications. The comments filed by the third party requester on 3/8/2016 are correct. There is no record that the examiner considered Suman. As to Johnson, again the Patent Owner contends that it was considered by the examiner during the original prosecution. Again, this is incorrect. A family member of Johnson was cited in a family member of the '278 patent. Johnson was never cited in the application that became the '278 patent. As to Spaur, the Patent Owner contends that a similar reference was cited during the original prosecution. The examiner fails to see the significance of the citation of an alleged similar reference. Again, Spaur was not cited during the original prosecution of the '278 patent.

The Patent Owner further broadly contends that the references cited in the Order do not show the claimed features. However, there are no specific arguments as to how the features of the cited references fail to show the claimed features. The claimed features are clearly shown as discussed in the above rejection of the claims and as noted in the 3/8/2016 response by the Third Party Requester on pages 13-18.

11. The patent owner is reminded of the continuing responsibility under 37 CFR 1.565(a) to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving Patent No. 8,032,278 throughout the course of this reexamination proceeding. The Third Party Requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

12. Patent Owner is notified that any proposed amendment to the specification and/or claims in this reexamination proceeding must comply with 37 CFR

1.530(d)-(j), must be formally presented pursuant to 37 CFR 1.52(a) and (b), and must contain any fees required by 37 CFR 1.20(c).

13. In order to ensure full consideration of any amendments, affidavits or declarations, or other documents as evidence of patentability, such documents must be submitted in response to this Office action. Submissions after the next Office action, which is intended to be a final action, will be governed by the requirements of 37 CFR 1.116, after final rejection and 37 CFR 41.33 after appeal, which will be strictly enforced.

14. Any inquiry concerning this communication should be directed to Matthew C. Graham at telephone number 571-272-7116.

Please mail any communications to:

Attn: Mail Stop "Ex Parte Reexam"
Central Reexamination Unit
Commissioner for Patents
P. O. Box 1450
Alexandria VA 22313-1450

Please FAX any communications to:
(571) 273-9900
Central Reexamination Unit

Please hand-deliver any communications to:

Customer Service Window
Attn: Central Reexamination Unit

Randolph Building, Lobby Level
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Reexamination Legal Advisor or Examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7705.

Signed:

/Matthew C. Graham/

Matthew C. Graham
CRU Examiner
3993
(571) 272-7116

Conferees: /PCE/
/GAS/

Search Notes

Application/Control No.	Applicant(s)/Patent under Reexamination	
90/013,587	8032278	
Examiner	**Art Unit**	
MATTHEW C. GRAHAM	3993	

SEARCHED			
Class	Subclass	Date	Examiner
b60r	25/04	5/4/2016	MCG

INTERFERENCE SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES (INCLUDING SEARCH STRATEGY)		
	DATE	EXMR
See attached EAST Search History	5/4/2016	MCG

PTO/SB/08a (07-09)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 2

Complete if Known	
Application Number	90/013,587
Filing Date	September 14, 2015
First Named Inventor	Flick, Kenneth
Art Unit	3993
Examiner Name	Graham, Matthew C.
Attorney Docket Number	C13-03896.RE

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 5794164	1998-08-11	Microsoft Corporation	
		US- 7484008	2009-01-27	Borgia/Cummins, LLC	
		US- 6009363	1999-12-28	Microsoft Corporation	
		US- 7720597	2010-05-18	Omega Patents, L.L.C.	
		US- 7149623	2006-12-12	Omega Patents, L.L.C.	
		US- 6606561	2003-08-12	Omega Patents, L.L.C.	
		US- 20010033225	2001-10-25	Razavi, B. et al.	
		US- 60264811	2001-01-29	Flick, K.	
		US- 60258005	2000-12-22	Flick, K.	
		US- 60251552	2000-12-06	Flick, K.	
		US- 60252125	2000-11-20	Flick, K.	
		US- 60236890	2000-09-29	Flick, K.	
		US- 60246463	2000-11-07	Witham, K. et al.	
		US- 60222777	2000-08-03	Flick, K.	
		US- 60205178	2000-05-17	Flick, K.	
		US- 5719551	1998-02-17	Flick, K.	
		US- 6011460	2000-01-04	Flick, K.	
		US-			
		US-			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]-Number[4]-Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T[6]

Examiner Signature	/Matthew Graham/ (05/04/2016)	Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1]Applicant's unique citation designation number (optional). [2]See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. [3]Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4]For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5]Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [6]Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.G./

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 2 of 2

Complete if Known	
Application Number	90/013,587
Filing Date	September 14, 2015
First Named Inventor	Flick, Kenneth
Art Unit	3993
Examiner Name	Graham, Matthew C.
Attorney Docket Number	C13-03896.RE

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
		FLICK, K., Non-Final Office Action for U.S. Application No. 11/773,272, Mail Date January 5, 2011	
		FLICK, K., Office Action Response, Filed April 2, 2011	
		FILING RECEIPT for U.S. Application No. 11/773,272, Mail Date July 31, 2007	
		FLICK, K., Information Disclosure Statement for U.S. Application No. 11/076,259 filed March 9, 2005	
		CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY, Mail-Out #MSC 97-24, Dated November 17, 1997	

Examiner Signature	/Matthew Graham/ (05/04/2016)	Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Applicant's unique citation designation number (optional). [2] Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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BIB DATA SHEET

CONFIRMATION NO. 8867

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
90/013,587	09/14/2015 RULE	701	3993	C13-03895

APPLICANTS

INVENTORS
8032278, Residence Not Provided;
OMEGA PATENTS, LLC, DOUGLASVILLE, GA;
SAMUEL P. RICHEY (3RD PTY REQ.), ANAHEIM, CA;
KPPB LLP, ANAHEIM, CA

** **CONTINUING DATA** *************************
This application is a REX of 11/773,272 07/03/2007 PAT 8032278
which is a CIP of 11/076,259 03/09/2005 PAT 7720597
which is a CON of 10/383,496 03/07/2003 PAT 7149623
which is a CON of 09/859,972 05/17/2001 PAT 6606561
which claims benefit of 60/264,811 01/29/2001
and claims benefit of 60/258,005 12/22/2000
and claims benefit of 60/251,552 12/06/2000
and claims benefit of 60/252,125 11/20/2000
and claims benefit of 60/236,890 09/29/2000
and claims benefit of 60/246,463 11/07/2000
and claims benefit of 60/222,777 08/03/2000
and claims benefit of 60/205,178 05/17/2000

** **FOREIGN APPLICATIONS** *************************

** **IF REQUIRED, FOREIGN FILING LICENSE GRANTED** ** ** SMALL ENTITY **

Foreign Priority claimed / 35 USC 119(a-d) conditions met / Verified and Acknowledged	Met after Allowance	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
Foreign Priority claimed ☐ Yes ☑ No 35 USC 119(a-d) conditions met ☐ Yes ☐ No Verified and Acknowledged /MATTHEW C GRAHAM/ Examiner's Signature	☐ Initials			22	3

ADDRESS

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ORLANDO, FL 32802-3791
UNITED STATES

TITLE

Vehicle Tracking Unit with Downloadable Codes and Associated Methods

FILING FEE RECEIVED		
6000	FEES: Authority has been given in Paper No.____________ to charge/credit DEPOSIT ACCOUNT No.____________ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue)

BIB (Rev. 05/07).

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	"8032278".pn.	USPAT	OR	OFF	2016/05/04 15:35
L2	45	("20020152053" | "20020188702" | "20040066330" | "20040073440" | "20060173601" | "20060187026" | "20080051957" | "20080221752" | "20090240397" | "20100010706" | "20100222963" | "20110029196" | "5223844" | "5515043" | "5635693" | "5654688" | "5719551" | "5940007" | "6011460" | "6253064" | "6611755" | "6628233" | "6657587" | "6756885" | "6859831" | "6888495" | "7015830" | "7085775" | "7149623" | "7196621" | "7305293" | "7308341" | "7343244" | "7366892" | "7502687" | "7526367" | "7725253" | "7734392" | "7873593").PN. OR ("8032278").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/05/04 15:35
L3	1874	b60r25/04.cpc.	USPAT	OR	OFF	2016/05/04 15:38
L4	1035	3 and @ad<"20070704"	USPAT	OR	OFF	2016/05/04 15:38

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/013,851	10/28/2016	8032278	C13-03896.RE2	8717

7590 12/15/2016

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ORLANDO, FL 32802-3791

EXAMINER
REICHLE, KARIN M

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
12/15/2016	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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KPPB LLP

2400 EAST KATELLA AVENUE

SUITE 1050

ANAHEIM, CA 92806

EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. *90/013,851*.

PATENT NO. *8032278*.

ART UNIT *3992*.

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Karin M. Reichle

PTOL-465 (Rev.07-04)

Primary Examiner

Art Unit: 3992

Decision

Third Party requester submitted a request for reexamination with a filing date of October 28, 2016, requesting reexamination of claims 1-22 of U.S. Patent No. 8,032,278 (hereinafter also referred to as '278). A substantial new question of patentability affecting claims 1-22 of U.S. Patent No. 8,032,278 in effect at this time is raised by the request for *ex parte* reexamination. Accordingly, claims 1-22 will be reexamined.

Extensions of Time

Extensions of time under 37 CFR 1.136(a) will not be permitted in these proceedings because the provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Additionally, 35 U.S.C. 305 requires that reexamination proceedings "will be conducted with special dispatch" (37 CFR 1.550(a)). Extension of time in *ex parte* reexamination proceedings are provided for in 37 CFR 1.550(c).

Notification of Concurrent Proceedings

The patent owner is reminded of the continuing responsibility under 37 CFR 1.565(a), to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving Patent No. 8,032,278 throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

Amendment in Reexamination Proceedings

Patent owner is notified that any proposed amendment to the specification and/or claims in this reexamination proceeding must comply with 37 CFR 1.530(d)-(j), must be formally presented pursuant to 37 CFR 1.52(a) and (b), and must contain any fees required by 37 CFR 1.20(c).

Submissions

In order to insure full consideration of any amendments, affidavits or declarations or other documents as evidence of patentability, such documents must be submitted in response to the first Office action on the merits (which does not result in a close of prosecution). Submissions after the second Office action on the merits, which is intended to be a final action, will be governed by the requirements of 37 CFR 1.116, after final rejection and by 37 CFR 41.33 after appeal, which will be strictly enforced.

Waiver of Right to File Patent Owner Statement

In a reexamination proceeding, Patent Owner may waive the right under 37 C.F.R. 1.530 to file a Patent Owner Statement. The document needs to contain a statement that Patent Owner waives the right under 37 C.F.R. 1.530 to file a Patent Owner Statement and proof of service in the manner provided by 37 C.F.R. 1.248, if the request for reexamination was made by a third party requester, see 37 C.F.R 1.550(f). The Patent Owner may consider using the following statement in a document waiving the right to file a Patent Owner Statement:

WAIVER OF RIGHT TO FILE PATENT OWNER STATEMENT

Patent Owner waives the right under 37 C.F.R. 1.530 to file a Patent Owner Statement.

Service of Papers

After filing of a request for *ex parte* reexamination by a third party requester, any document filed by either the patent owner or the third party requester must be served on the other party (or parties where two or more third party requester proceedings are merged) in the reexamination proceeding in the manner provided in 37 CFR 1.248. The document must reflect service or the document may be refused consideration by the Office. See 37 CFR 1.550(f).

References Asserted as Raising a Substantial New Question

The asserted substantial new question of patentability (SNQP) regarding claims 1-22 of the '278 Patent is based upon the following references:

(1) U.S. Patent No. **6,009,363** to **Beckert et al**, published December 28, 1999, filed June 24, 1996, (hereinafter also referred to as **'363** or **Beckert**).

(2) U.S. Patent No. **5,732,074** to **Spaur et al**, published March 24, 1998, filed January 26, 1996 (hereinafter also referred to as **'074** or **Spaur**).

(3) U.S. Patent No. **6,028,537** to **Suman et al**, published February 22, 2000, filed June 3, 1997 (hereinafter also referred to as **'537** or **Suman**).

(4) U.S. Patent No. **6,330,499** to **Chou et al**, published December 11, 2001, filed July 21, 1999 (hereinafter also referred to as **'499** or **Chou**).

(5) SAE HS-3000 publication, "SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual" (1994 Edition), copyright 1994, (hereinafter also referred to as SAE HS-3000). [Exhibit G].

Filing Date

The earliest effective filing date the '278 patent is entitled to is July 3, 2007 (see paragraph 2 of the 5/6/2016 non-final rejection of the 90/013,587 discussed *infra*).

Availability of Asserted References as Prior Art

The patents to **Beckert , Spaur, Suman and Chou** and publication to SAE 3000 include a/an publication/issue date more than one year prior to the effective filing date of June 3, 2007 of the '278 patent, see discussion *supra*, and thus are available as prior art under 35 USC 102(b) and 35 USC 103.

Summary of Prosecution History

U.S. Application 11/773,272 was filed on July 3, 2007 (hereinafter also referred to as '272 or the '272 application). The '272 application claimed continuity-in-part from Application No. 11/076,259 filed March 9, 2005 (hereinafter also referred to as '259 or the '259 application), which issued as Patent No. 7,720,597. The '259 application itself claimed continuity from Application No. 10/383,496 filed March 7, 2003 (hereinafter also referred to as '496 or the '496 application), which issued as Patent No. 7,149,623. The '496 application itself claimed continuity from Application No. 09/859,972 filed May 17, 2001 (hereinafter also referred to as

'972 or the '972 application), which issued as Patent No. 6,606,561. The '972 application itself claimed the benefit of provisional patent application Serial Nos. 60/264,811 filed on January 29, 2001; 60/258,005, filed December 22, 2000; 60/251,552, filed December 6, 2000; 60/252,125, filed November 20, 2000; 60/236,890, filed September 29, 2000; 60/246,463, filed November 7, 2000; 60/222,777, filed August 3, 2000; and 60/205,178, filed May 17, 2000, the entire contents of each of which are incorporated herein by reference by '272.

Below are the pertinent Examiner's findings of fact relevant to this discussion:

'972 Application

U.S. Application 09/859,972 was filed on May 17, 2001. The application included a specification, claims, abstract and nine Figures. Claims 1-49 were directed to a vehicle tracking unit/system and claims 50-64 directed to a method for operating a vehicle tracking unit. On September 9, 2001, a preliminary amendment was filed including drawing modifications and a substitute specification.

A first non-final Office action was mailed by USPTO on January 23, 2001 rejecting all the claims. A PTO-892 accompanied such action cited US Patent No. **6,330,499** to **Chou et al**.

On December 13, 2002 a second FINAL rejection was mailed by the USPTO rejecting claims 1-29 and 50-50, allowing claims 30-49 and 58-64 and objecting to claims 5, 17 and 25. Claim 10 depending from claim 1 was rejected under 35 USC 103(a) as being unpatentable over Maggiora et al in view of "**Chou et al (6,330,499)**" (emphasis added) ("…Chou teaches a user interface for accepting at least one command from a user and sending at least one alert to the user (column 3, lines 5-15)").

In response an amendment after final was filed on February 7, 2003 amending claims 1, 13 and 22 and cancelling claims 5, 17, 25 and 50-57.

A Notice of Allowance indicating the allowability of claims 1-4, 6-16, 18-24, 26-49 and 58-64 was mailed by the USPTO on February 13, 2003.

The application issued as US Patent No. 6,606,561 on August 12, 2003.

'272 Application:

U.S. Application 11/773,272 was filed on July 3, 2007. The application included a specification, an abstract, thirty claims and fifteen Figures.

An Office action was mailed by USPTO on December 24, 2009. Claims 1-30 were subject to an election requirement between claims 1-22 drawn to a multi-vehicle tracking device/unit and claims 23-30 drawn to a method of using a multi-vehicle tracking device/unit.

A response to such Office Action was filed February 24, 2010. The response amended claims 13 and 18 to overcome various objections and provisionally elected claims 1-22 and withdrew claims 23-30.

A non-final Office action was mailed by USPTO on June 22, 2010. Claims 1-22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Brinkmeyer et al. (US Pat. 5,940, 007).

A response to such Office Action was filed October 22, 2010. The response cancelled claims 23-30. The response also presented remarks submitting that Brinkmeyer et al. failed to disclose the multi-vehicle compatible controller being coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding

vehicle device code from among a plurality thereof for different vehicles, as recited by independent claim 1.

Another non-final Office Action was mailed by the USPTO on January 5, 2011. Claims 1-22 were rejected. The prior art combination of Monroe (US Pat. 6,253,064 B1) in view of Brinkmeyer et al. (US Pat. 5,940,007) was used to reject the claims.

A response to the Office Action was filed on April 5, 2011. The response presented remarks, i.e.:

> ...the proposed prior art combination fails to disclose or fairly suggest each and every feature of the claimed invention. For example, the proposed prior art combination fails to disclose the multi-vehicle compatible controller coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles, as recited by independent Claim 1, for example.... Furthermore, none of the applied prior art references discloses the multi-vehicle compatible tracking unit including a connector for temporary connection to a downloading device and a wireless receiver for temporary connection to a downloading device, as recited by the independent claims. Applicant notes that this claim feature enables a user to quickly download new vehicle codes into the multi-vehicle compatible tracking unit without removing and reinstalling the unit. (Emphasis original.)

A Notice of Allowance allowing claims 1-22 issued on June 28, 2011. The Notice set forth:

> Pending claims 1-22 are patentable over cited references of Monroe in view of Brinkmeyer et al., because these prior art do not make obvious a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising: a vehicle position determining device; a wireless communications device; a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information; said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device; and a downloading

> interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller; said downloading interface comprising a connector for temporary connection to a downloading device.

(See finally rejected claims 13 and 15).

The application issued as US Patent No. 8,032,278 on October 4, 2011.

'587 Reexam:

On September 14, 2015 a first request for *ex parte* reexamination of claims 1-22 of U.S. Patent No. 8,0320,278 was filed by a third party requester, hereinafter also referred to as TPR.

The Request at pages 10-11 in a section entitled "**V. STATEMENTS POINTING OUT EACH SUBSTANTIAL NEW QUESTION OF PATENTABILITY**" set forth:

> As explained in greater detail below, A) the *Suman '537* patent; B) the *Spaur '074* patent; and C) the Flick '876 patent, *either alone or in combination with a variety of references* published prior to the earliest claimed priority date of the Flick '278 patent, raise substantial new questions of patentability based on new teachings not previously considered or addressed in the prior examination of the Flick '278 patent.
>
> *A. U.S. Patent No. 6,028,537*
>
> ...
>
> **1. Technological Teaching: Obtaining and Transmitting Location Data using a Standard Vehicle Bus**
>
> The *Suman '537* patent teaches a vehicle communication and control system including a wireless communications device, a vehicle location determination device, and *a controller capable of communicating with a variety of vehicle devices via a standardized vehicle data bus*....

Thus, the *Suman '537* patent discloses technological teachings that the Examiner previously found to be missing from the prior art of record disclosed in the Flick 2278 patent.

...

3. **Substantial New Question of Patentability as to Claims 1 - 22 because the Suman '537 Patent Teaches all Claim Elements**

Each of claims 1- 22 require a multi-vehicle compatible controller coupled to a vehicle data bus for communication thereover with at least one vehicle device. As shown above, and in more detail in the claim charts attached as Exhibit B, the *Suman '537 patent discloses this and all other required limitations, explicitly disclosing communicating via a "vehicle data bus" and a "downloading interface."* Accordingly, it is submitted that *all aspects of claims 1 - 22 are disclosed by the Suman '537 patent* in at least as complete detail as contained in the claims. A reasonable examiner would consider the teachings important in deciding whether or not claims 1 - 22 of the Flick '278 patent are patentable. For these reasons, the *Suman '537* patent raises a substantial new question of patentability as to claims 1 - 22.

B. U.S. Patent No. 5,732,074

...

1. Technological Teaching: Obtaining and Transmitting Location Data using a Standard Vehicle Bus

The *Spaur '074* patent teaches *a controller* having a wireless device, a direct communications port, and *a connection to a vehicle standardized network* that can be utilized to read data from vehicle devices and transmit that data via the wireless device....

Thus, *the Spaur '074* patent discloses technological teachings that the Examiner previously found to be missing from the prior art of record disclosed in the Flick '278 patent.

...

3. Substantial New Question of Patentability as to Claims 1-22 Because Spaur '074 Teaches all Claim Elements

> Each of claims 1-22 require a multi-vehicle compatible controller coupled to a vehicle data bus for communication thereover with at least one vehicle device. As shown above, and in more detail in the claim charts attached as Exhibit C, *the Spaur '074 patent discloses this and all other required limitations, explicitly disclosing communicating via a "vehicle data bus" and a "downloading interface."* Accordingly, it would have been obvious to one skilled in the art *that all aspect of claims 1-22 are disclosed by the Spaur '074 patent.* A reasonable examiner would consider the teachings important in deciding whether or not claims 1-22 of the Flick '278 patent are patentable. For these reasons, the *Spaur '074* patent raises a substantial new question of patentability as to claims 1 - 22. (Bold original, underlined italics added.)

On November 10, 2015, an Order Granting the Request for *ex parte* reexamination was mailed by the USPTO. The Order set forth:

> *Key to each of these claims is the reaction [sic] of a "vehicle data bus" and a "downloading interface for permitting downloading of enabling data".*
>
> *Suman teaches a vehicle data bus - an SAE standard J1850* [sic] See col. 37, lines 15 - 17. In addition Suman teaches a downloading interface for permitting downloading of enabling data. In particular, Suman teaches at col. 36, lines 31-52: "To achieve these aspects and other advantages, the vehicle accessory control system of the present invention includes a plurality of electrically-operated vehicle accessories, a receiver to be mounted in a vehicle *for receiving RF signals* from a land-based transmitter, and a control circuit coupled to the receiver and to the vehicle accessories *for controlling the operation of the vehicle accessories in accordance with a control program.* The RF signals include an address uniquely identifying the vehicle and a reprogramming signal for reprogramming the operation of at least one of the vehicle accessories. The control circuit includes an input interface for receiving information regarding a plurality of sensed conditions, control means for controlling the operation of the vehicle accessories in accordance with the control program and in response to sensed conditions received from the input interface. *The control circuit further includes reprogramming means for selectively reprogramming the control program in response to the detection of an RF signa*l including an address identifying the vehicle and the reprogramming signal, to selectively change the manner in which the control means controls the operation of at least one of the vehicle accessories."
>
> There is a substantial likelihood that a reasonable examiner would have considered these teachings in Suman to be important in the determination of

patentability of claims 1-22 of Flick '278. Accordingly, Suman raises a substantial new question of patentability, which question has not been previously raised.

Spaur teaches a vehicle data bus 46 and teaches that a wireless communications device can be utilized to download enabling data in a variety of forms including received information associated with vehicle devices and executable software downloaded from a remote site: "since bi-directional communications involving a vehicle are conducted wirelessly for at least a portion of the communications link, it is necessary for the Internet to communicate with an appropriate interface or network that wirelessly links with the vehicle. In one embodiment, the cellular digitized packet data (CDPD) network provides the desired link including arrangement of information being communicated and where the destination site, namely the particular vehicle, is found in the network." (See col. 2, lines 37 - 46).

Spaur also notes that a "combination of controller related components are containable in a vehicle for responding to requests from remote sites, obtaining and storing information associated with vehicle devices and running executable software that may be available in the program memory of the controller or downloaded from the remote site, while handling and configuring information including data that is communicative with the remote site over an established network, such as the Internet." (See col. 4, line 64 - col. 5, line 5).

Furthermore, Spaur teaches that "the controller in the vehicle is also associated with an interface for communication with one or more available systems, such as an RS232 connection, an Ethernet connection and/or a PCMCIA unit. In a related embodiment, the controller includes a direct communications port for receiving and sending information without requiring the wireless device and the Internet connection to the wireless device." (See col. 4, lines 38 - 45).

There is a substantial likelihood that a reasonable examiner would have considered these teachings in Spaur to be important in the determination of patentability of claims 1-22 of Flick '278. Accordingly, Spaur raises a substantial new question of patentability, which question has not been previously raised. (Underlined italics emphasis added.)

On January 8, 2016 the Patent Owner (hereinafter also referred to as PO) filed a statement asserting Suman '537 had already been considered in the parent '278 while Spaur '074

was similar to a co-assigned reference 7,366,892 which had also been considered in the parent '278. Furthermore, PO asserted:

> A. The Claims Are Patentable Over the Suman et al. '537 Patent
>
> The Suman et al. '537 patent is directed to vehicle personalization to be remotely effected by a service provider using a radio frequency (RF) system such as a paging or cellular system. A vehicle owner, wishing to reprogram a vehicle, calls the service provider who effects reprogramming of an option control by transmitting RF control signals to the vehicle from a land-based transmitter to a receiver mounted in the vehicle. Thus, because the service provider effects vehicle personalization, the vehicle owner need not have any technical knowledge as to how to operate the vehicle programming system. Vehicle personalization may also be provided for each person who may operate the vehicle.
>
> To achieve these aspects, the vehicle accessory control system includes a plurality of electrically-operated vehicle accessories, a receiver to be mounted in a vehicle for receiving RF signals from a land-based transmitter, and a control circuit coupled to the receiver and to the vehicle accessories for controlling the operation of the vehicle accessories in accordance with a control program. The RF signals include an address uniquely identifying the vehicle and a reprogramming signal for reprogramming the operation of at least one of the vehicle accessories. The control circuit includes an input interface for receiving information regarding a plurality of sensed conditions, control means for controlling the operation of the vehicle accessories in accordance with the control program and in response to sensed conditions received from the input interface. The control circuit further includes reprogramming means for selectively reprogramming the control program in response to the detection of an RF signal including an address identifying the vehicle and the reprogramming signal, to selectively change the manner in which the control means controls the operation of at least one of the vehicle accessories.
>
> The Patent Owner respectfully submits that the Suman et al. '537 patent fails to disclose, as recited in Claim 1, for example, a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. More particularly, the Suman et al. '537 patent fails to disclose a multi-vehicle compatible controller for cooperating with a vehicle position determining device and a wireless communications device to send vehicle position information, wherein the multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles, and wherein a downloading interface permits downloading of enabling data related to the at least one corresponding vehicle device code for use

by the multi-vehicle compatible controller. Along these lines, the Suman et al. '537 patent fails to disclose these features with the downloading interface comprising a connector for the temporary connection to a downloading device as recited in independent Claim 13, or a wireless receiver as recited in independent Claim 18.

None of the other references identified by the Examiner supply the deficiencies of the Suman et al. '537 patent. Accordingly, independent Claims 1, 13 and 18 are patentable. Their dependent claims, which recite further distinguishing features, are also patentable and require no further discussion herein.

B. The Claims Are Patentable Over the Spaur et al. '074 Patent

The Spaur et al. '074 patent discloses communication to and from a controller at the vehicle. As helpfully pointed out by the Examiner, the reference discloses an interface for the controller, such as an RS-232 connection, an Ethernet connection, a Personal Computer Memory Card International Association (PCMCIA) unit, or a direct communications port. Moreover, as noted at col. 4, lines 51-57, the Spaur et al. '074 patent recites:

> "[] each vehicle device on the CAN has its own IP designation or address so that the remote user can utilize this designation or address for communication with the selected vehicle device having that designation or address. The controller uses the received IP address or designation for the particular device and acts as a link or bridge for the remote user to the particular device".

In other words, the Spaur et al. '074 patent fails to disclose, as recited in Claim 1, a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The Spaur et al. '074 patent fails to disclose a multi-vehicle compatible controller for cooperating with a vehicle position determining device and a wireless communications device to send vehicle position information, wherein the multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles, and wherein a downloading interface permits downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller. The Spaur et al. '074 patent fails to disclose these features with the downloading interface comprising a connector for the temporary connection to a downloading device, as recited in independent Claim 13, or a wireless receiver, as recited in independent Claim 18.

> None of the other references identified by the Examiner supply the deficiencies of the Spaur et al. '074 patent. Accordingly, the Patent Owner submits that independent Claims 1, 13 and 18 are patentable, and the dependent claims, which recite further distinguishing features, are also patentable and require no further discussion herein.
>
> The Patent Owner also respectfully submits that the Spaur et al. '074 patent adds nothing to the deficiencies of the Suman et al. '537 patent - its respective deficiencies being pointed out above.

On March 8, 2016 TPR filed a reply to PO's statement. TPR reasserted that both the Spaur '074 and Suman '537 patents were not previously considered by the Examiner during the prosecution of the '278 and the Order's conclusion that these patents raised a substantial new question of patentability was correct. TPR continues:

> Furthermore, under the broadest reasonable interpretation, a multi-vehicle compatible tracking unit as recited in claims 1 - 22 of the Flick '278 patent could be compatible with ***multiple vehicles of the same year, make, and/or model***…
>
> …*the SAE standard J1850 bus referenced in the Suman et al. '537 patent is "universally used in the automotive industry" (Suman et al. publication, column 37 lines 15 - 17) and therefore is used in many different vehicle year, makes, and models….*
>
> …
>
> …The above referenced portion of the Spaur et al. '074 [col. 4, lines 51-57] teaches connecting the disclosed multi-vehicle compatible controller to a CAN bus. *However the Spaur et al. '074 reference is not limited to disclosing CAN buses and teaches that the multi-vehicle compatible controller can connect with any of a variety of standardized buses*: "[o]ther available networks could be utilized instead of the CAN, such as Arcnet, which has a protocol similar to CAN". (Spaur et al. '074 patent, column 4, lines 5 - 7). *Standardized vehicle data buses include the CAN bus standard published by the CAN in Automation group. Standardized vehicle data buses also include the SAE J1850 bus standard published by the Society of Automotive Engineers.*
>
> …

> …Requester further notes that, since 1991, the CAN specification has required support for two message formats that can be present on any given vehicle's CAN bus (i.e. the CAN 11-bit message format and CAN 29-bit message 16 format). Therefore, communication via the CAN bus requires support for a plurality of different message formats for the different vehicle devices that may be present on any of the myriad of year, make, and model of vehicles that support the CAN bus, which includes a significant percentage of the vehicles sold in the U.S. dating back to 1991 and almost every passenger vehicle sold in the U.S. since 2008 due to Federal mandate.
> (Underlined italics emphasis added.)

TPR also cited pertinent and applicable additional prior art believed to have bearing on patentability, i.e. 1) the *Beckert '363* patent; 2) the Gelvin '008 patent; and 3) the Razavi et al. publication, raise substantial new questions of patentability based on new teachings not previously considered or addressed in the prior examination of the Flick '278 patent. Specifically:

> **1. U.S. Patent No. 5,794,164**
>
> ….
>
> **a) Technological Teaching: Transmitting Location Data, Communicating Via One of the OBD II vehicle Data Bus Protocols and Downloading Means Downloading Enabling Data**
>
> The Beckert et al. '363 patent teaches a vehicle computer system including a wireless communications device, a vehicle location determination device, a downloading interface, and a controller capable of communicating with a variety of vehicle devices *via the OBD II standardized vehicle data bus mandated for inclusion in 1996 or later model vehicles. By way of background, at the time of the filing of the Beckert et al. '363 patent, federal mandate required all vehicles to conform to California Code of Regulations (CCR) 1968.1. CCR 1968.1 permitted vehicles to implement three different on-board to off-board network*

communications protocols:

(1.6) Either SAE Recommended Practice J1850, "Class B Data Communication Network Interface", July, 1995, or ISO 9141-2, "Road vehicles - Diagnostic Systems - CARB Requirements for Interchange of Digital Information," February, 1994, or ISO 14230-4, "Road vehicles - Diagnostic systems - KWP 2000 requirements for Emission-related systems," April, 1996, which are incorporated by reference, shall be used as the on-board to off-board network communications protocol. All SAE J1979 emission related messages sent to the J1978 scan tool over a J1850 data link shall use the Cyclic Redundancy Check and the three byte header, and shall not use inter-byte separation or checksums.

(1968.1 Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium Duty Vehicles and Engines, p 36, Exhibit U).

...

The Beckert et al. '363 patent also incorporates by reference the disclosure of U.S. Patent 5,794,164 to Beckert et al. (the Beckert et al. '164 patent) in its entirety at col. 7, lines 44-51. The Beckert et al. '164 patent provides additional detail concerning the modules of the vehicle computer system disclosed in the Beckert et al. '363 patent and specific detail concerning the OBD interpreter and APIs that are exposed to remote devices by the vehicle computer system, which include a diagnostic API (amongst others). Thus, the Beckert et al. '363 patent discloses technological teachings that the Examiner previously found to be missing from the prior art of record disclosed in the Flick '278 patent.

c) Substantial New Question of Patentability as to Claims 1-22 because the Beckert et al, '363 Patent Teaches all Claim Elements

Each of claims 1-22 require a multi-vehicle compatible controller coupled to a vehicle data bus for communication thereover with at least one vehicle device. As shown above, and in more detail in the claim charts attached as Exhibit R, the Beckert et al. '363 patent discloses this and all other required limitations, explicitly disclosing communicating via a "vehicle data bus" and a "downloading interface." Accordingly, it is submitted that all aspects of claims 1 - 22 are disclosed by the Beckert et al. '363 patent in at least as complete detail as contained in the claims. A reasonable examiner would consider the teachings important in deciding whether or not claims 1 - 22 of the Flick '278 patent are patentable. For these reasons, the Beckert et al. '363 patent raises a substantial new question of patentability as to claims 1-22.
(Bold emphasis original, underlined italics added.)

A non-final action was mailed by the USPTO on May 6, 2016. Such action determined the earliest effective filing date for Flick '278 to be July 3, 2007. The action also determined that the '363, '008 and '225 references each taught a vehicle computer system including a wireless communications device, a vehicle location determination device, a downloading interface, and a controller capable of communicating with a variety of vehicle devices and therefore, there was a substantial likelihood that a reasonable examiner would have considered these teachings in *Beckert*, Gelvin and Razavi to be important in the determination of patentability of claims 1 -22 of Flick '278. Accordingly, *Beckert*, Gelvin and Razavi were determined to each raise a substantial new question of patentability, which question has not been previously raised. The action also included rejections of claims 1-22 under pre-AIA 35 U.S.C. 102(b) as being anticipated by *Suman* or *Beckert* and under pre-AIA 35 U.S.C. 103(a) as being unpatentable over *Spaur* in view of other references used for the teaching of location detection. Finally the action concluded with the Examiner finding the PO'S remarks regarding the art being previously considered and the claim features not being shown thereby not persuasive.

> On June 16, 2016 a personal interview was held. The PTOL-404 Summary set forth:
>
> Description of the general nature of what was agreed to if an agreement was reached, or any other comments: Spaur and Suman references were discussed. Examiner agreed to drop the 102 rejection based upon Beckert. *Examiner suggested that the Patent Owner provide evidence relating to the use of device codes in vehicles at the time of the invention in relation to their inherent use in Suman and Spaur.* The scope of the claims was also discussed. Patent Owner's representative provided the attached agenda and various documents pertaining to related court proceedings.
> (Emphasis added.)

while the PO Summary of July 6, 2016 set forth, e.g.:

While discussing Suman et al., the Patent Owner contended that Suman et al. failed to disclose: "said multivehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles", as recited in independent Claim 1, for example.

In reply, the Examiners cited Col. 2, lines 3-11 of Suman et al. as teaching the "multi-vehicle compatible controller" of the claimed invention. The Patent Owner contended that this was a mischaracterization of the teachings of Suman et al. The Examiner's invited the Patent Owner to submit evidence supporting this contention.

The Patent Owner also contended that Suman et al. fails to disclose: "a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller", as recited by independent Claim 1, for example.

The Examiners noted that Col. 24, lines 8-13 of the present application recite: "[t]he enabling data may be the vehicle device code or codes, an instruction to select a code or codes from among those already stored, or the data or sequence to allow the controller 111 to generate the vehicle device code or codes, for example". The Examiners also correctly noted that Suman et al. fails to disclose the downloading interface for permitting downloading of vehicle device codes. While discussing Spaur et al., the Patent Owner contended that Spaur et al. failed to disclose: "said multivehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles", as recited in independent Claim 1, for example.

In reply, the Examiners contended similarly that since Spaur et al. discusses potential application in different vehicles, therefore Spaur et al. discloses the multi-vehicle compatible controller of the claims. The Patent Owner contended that this was a mischaracterization of the teachings of Spaur et al. The Examiner's invited the Patent Owner to submit evidence supporting this contention. The Examiners also correctly noted that Spaur et al. fails to disclose the downloading interface for permitting downloading of vehicle device codes.

Additionally, while discussing Spaur et al., the Patent Owner noted that Spaur et al. discloses a vehicle position determining device. Accordingly, for purposes of clarity, the Patent Owner agreed to also discuss the Spaur et al. patent with regards to its failure to anticipate the claimed invention.

> The Examiners determined that the rejection over Beckert et al. was withdrawn. (Emphasis added.)

The Agenda attached to the Summary indicated that PO intended to argue that the references or combination of references used to reject the claims did not teach the features of a multi-vehicle compatible controller nor a downloading interface.

A response to the non-final Office Action was also filed on July 6, 2016. The response included remarks and a Rule 132 declaration by Michael J. Suman and a Rule 132 declaration by Joseph C. McAlexander, III.

On December 1, 2016, a Notice of Intent to Issue Ex Parte Reexamination Certificate (NIRC) was issued by the USPTO. The Statement of Reasons for Patentability and/or Confirmation set forth:

> The following is an examiner's statement of reasons for patentability and/or confirmation of the claims found patentable in this reexamination proceeding: the Examiner agrees that the declarations by Suman and McAlexander provide sufficient evidence that Suman and Spaur each fail to disclose the multi-vehicle compatible controller as recited in independent claims 1,13 and 18. Claims 2-12, 14-17 and 19-22 are considered to be patentable due to their dependency on claims 1, 13 and 18, respectively.

The Suman declaration provided:

> 12. …The embodiments contemplated by me at the time of my '537 patent, the disclosure in my '537 patent, and the related commercial developments within my work responsibilities were not directed to a multi-vehicle compatible controller … as in the '278 patent claims. The embodiments contemplated by me at the time of my '537 patent did not include multi-vehicle compatibility, and at the time I left Johnson Controls in 2002 I had never contemplated or worked with any multi-vehicle compatible controller as described in the '278 patent. I point out that at

the time of my '537 patent, the vehicle device codes were proprietary to different manufacturers, and even different model lines offered by manufacturers. Moreover, the device codes were not made freely available, and were quite difficult to obtain.

13. ...Based upon my knowledge and experience, the reprogramming means [of 537] is not related to vehicle codes or to providing a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller, as in the '278 patent claims. Instead, the reprogramming means is for vehicle personalization and was not capable of making communications level changes that would be necessary to provide multi-vehicle compatibility.

14. I would also like to clarify that the following passage from my '537 patent does not support the contention that my patent discloses a multi-vehicle compatible controller and downloading interface as in the '278 patent claims: ...(Col. 2, lines 3-10).
It was expected that the vehicles in a given fleet would be the same type vehicle having the same device codes.

15. ... It is my position, based upon my knowledge and experience, that none of the cited portions of my '537 patent supply these teachings relating to a wired or wireless interface. Indeed, I was simply not working on the problem of multi-vehicle compatibility, and there was no project to develop any software to give the connector the functions as contended in the Official Action. Moreover, the embodiments conceived and described in the '537 patent were not capable of modifying the communications level to allow for multi-vehicle compatibility. Along these lines, there is also no disclosure in my 537 patent of using the telephone to provide a wireless interface as in the '278 patent.

The McAlexander declaration provided:

10. I have also reviewed the Rule 132 Declaration being submitted concurrently herewith by Michael J. Suman, the lead inventor on U.S. Patent No. 6,028,537, i.e., another reference being cited in the Official Action. In that Declaration, Mr. Suman confirms my understanding that at the time of the Spaur et al. patent (filed about six months before the filing of the provisional application leading to the Suman et al. patent), the vehicle device codes were proprietary to different manufacturers, and even different model lines offered by manufacturers; and that the device codes were not made freely available, and were quite difficult to obtain.

...

19. The Official Action incorporates by reference a listing of how Spaur et al. (and Johnson et al.) relates to the claims of the '278 patent from Requester's Exhibit F. From Exhibit F, the following sections of Spaur et al. are asserted as disclosing a multi-vehicle controller using at least one corresponding device code from among a plurality thereof for different vehicles:

... (Col. 6, lines 31-50) .

... (Col. 10, lines 15-29).

... (Col. 10, lines 55-64. [sic]

Based upon my knowledge, experience and analysis, I do not believe that these cited portions of Spaur et al. disclose the multi-vehicle compatible controller as in the claims of the '278 patent. In addition, I also believe that, based upon these portions of Spaur et al., or any other portions of Spaur et al., there is no inherent teaching of the multi-vehicle compatible controller as in the '278 patent claims. In other words, it does not necessarily flow that Spaur et al. would have a multivehicle compatible controller using the device codes as in the '278 patent claims.

20. I also point out that Exhibits 14 and 15 from Requester's technical trial expert, Mr. Andrews, and describing the actual CellPort Labs products as disclosed in Spaur et al., also fail to have any express or inherent teaching of the multivehicle compatible controller as in the '278 patent claims....

21. The Official Action also cites to the following language from col. 4, lines 38-45 of Spaur et al. for the alleged teaching of the downloading interface as recited in the '278 patent claims...

Again, based upon my knowledge, experience and analysis, I do not believe that these cited portions of Spaur et al., or any other portions of Spaur et al., disclose (either directly or through inherency) a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller as found in the claims of the '278 patent. Spaur et al. does disclose an interface in combination with a controller; however, Spaur et al. fails to disclose the multivehicle compatible controller and the downloading interface as recited in the claims of the '278 patent. In addition, there is nothing in the description of the corresponding CellPort Labs actual products (Exhibits 14 and 15) that discloses the multivehicle compatible controller and the downloading interface as recited in the claims of the '278 patent.

Instant '851 Request for Reexam:

The instant '851 Request, hereinafter also referred to as the '851 Request, was filed October 28, 2016 by the same TPR which filed the '587 reexam.

SNQP/Reference Analysis

Attention is directed to MPEP 2216, i.e.:

> Under 35 U.S.C. 304, the Office must determine whether "a substantial new question of patentability" affecting any claim of the patent has been raised. 37 CFR 1.510(b)(1) requires that a request for ex parte reexamination include "a statement pointing out each substantial new question of patentability based on prior patents and printed publications." If such a new question is found, an order for ex parte reexamination of the patent is issued. **It is therefore important that the request clearly set forth in detail what the requester considers the "substantial new question of patentability" to be in view of prior patents and printed publications. The request must point out how any questions of patentability raised are substantially different from those raised in the previous examination of the patent before the Office.**
>
> It is not sufficient that a request for reexamination merely proposes one or more rejections of a patent claim or claims as a basis for reexamination. It must first be demonstrated that a patent or printed publication that is relied upon in a proposed rejection presents **a new, non-cumulative technological teaching** that was **not previously considered and discussed on the record during the prosecution of the application** that resulted in the patent for which reexamination is requested, **and during the prosecution of any other prior proceeding involving the patent for which reexamination is requested**. See also MPEP § 2242.
>
> The legal standard for ordering ex parte reexamination, as set forth in 35 U.S.C.303(a), requires a substantial new question of patentability. The substantial new question of patentability may be based on art previously considered by the Office **if** the reference is presented in a **new light or a different way that escaped review during earlier examination.**
>
> ....
>
> After the enactment of the Patent and Trademark Office Authorization Act of 2002 ("the 2002 Act"), a substantial new question of patentability can be raised by patents and printed publications "previously cited by or to the Office or

> considered by the Office" ("old art"). The 2002 Act did not negate the statutory requirement for a substantial new question of patentability that requires raising new questions about pre-existing technology. In the implementation of the 2002 Act, MPEP § 2242, subsection II.A. was revised. The revision permits raising a substantial new question of patentability based solely on old art, **but only if** the old art is "**presented/viewed in a new light, or in a different way, as compared with its use in the earlier concluded examination(s), in view of a material new argument or interpretation presented in the request.**" Thus, a request may properly raise a substantial new question of patentability by raising a material new analysis of previously considered reference(s) under the rationales authorized by KSR.
>
> **Questions relating to grounds of rejection other than those based on prior art patents or printed publications should not be included in the request and will not be considered by the examiner if included.** Examples of such questions that will not be considered are public use, on sale, and conduct by parties. (Emphasis added.)

Attention is also invited to MPEP 2242, I., i.e.:

> The presence or absence of "a substantial new question of patentability" determines whether or not reexamination is ordered. The meaning and scope of the term "a substantial new question of patentability" is not defined in the statute and must be developed to some extent on a case-by-case basis, using the case law to provide guidance as will be discussed in this section.
>
> If the prior art patents and printed publications raise a substantial question of patentability of at least one claim of the patent, then a substantial new question of patentability is present, **unless the same question of patentability has already been decided** by (A) a final holding of invalidity, after all appeals, or (B) by the Office in a previous examination or pending reexamination of the patent. A "previous examination" of the patent is: (A) the original examination of the application which matured into the patent; (B) the examination of the patent in a reissue application that has resulted in a reissue of the patent; or (C) the examination of the patent in an earlier pending or concluded reexamination. ....
>
> A prior art patent or printed publication raises a substantial question of patentability where there is a substantial likelihood that a reasonable examiner would consider the prior art patent or printed publication important in deciding whether or not the claim is patentable. If the prior art patents and/or publications would be considered important, then the examiner should find "a substantial new question of patentability" **unless the same question of patentability has already been decided as to the claim** in a final holding of invalidity by the Federal court

> system or **by the Office in a previous examination.** For example, the same question of patentability may have already been decided by the Office where the examiner finds the additional (newly provided) prior art patents or printed publications *are merely cumulative to* ***similar*** *prior art* already fully considered by the Office in a previous examination of the claim.
>
> For "a substantial new question of patentability" to be present, it is only necessary that: (A) the prior art patents and/or printed publications raise a substantial question of patentability regarding at least one claim, i.e., the teaching of the (prior art) patents and printed publications is such that a reasonable examiner would consider the teaching to be important in deciding whether or not the claim is patentable; **and** (B) the same question of patentability as to the claim has not been decided by the Office in a previous examination or pending reexamination of the patent or in a final holding of invalidity by the Federal Courts in a decision on the merits involving the claim. It is not necessary that a "prima facie" case of unpatentability exist as to the claim in order for "a substantial new question of patentability" to be present as to the claim....
> (Emphasis added.)

Attention is also invited to 2258.01:

> ...For purposes of reexamination, a cumulative reference that is repetitive is one that substantially reiterates verbatim the teachings of a reference that was either previously relied upon or discussed in a prior Office proceeding even though the title or the citation of the reference may be different....

Finally, see also MPEP 2247.

Suman '537:

Requester asserts **Suman '537** alone or in combination with SAE HS-3000, raises a substantial new question of patentability as to claims 1-22 of the '278 patent. See, e.g., page 7 of the Request.

The prosecution history indicates that SAE HS-3000 was not of record during the prosecution of any application to which the benefit of priority is claimed. Accordingly, such references is not precluded from raising a substantial new question of patentability.

Suman '537 however was not only cited but applied by the examiner during the prosecution of at least '587 reexam.

Accordingly, at least the **Suman '537** reference/evidence is "old art". However, as set forth *supra*, e.g., MPEP 2242 states:

> *"for example, a substantial new question of patentability may be based solely on old art where the old art is being presented viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request."*

In this instance, Requester, see, e.g., Sections V (pages 3-7) and VI, C. (pages 18-23) of the Request, asserts the combination of **'537** (previously before/considered by the Examiner during the examination/prosecution of the '587 reexam) with SAE HS-3000, see *supra*, a combination which was not considered during prosecution since the reference to, e.g., SAE HS-3000 was not even cited during prosecution. Accordingly, such combination is not precluded from raising a substantial new question of patentability.

During prosecution of the '272 application that led to the issuance of the '278 patent and the confirmation of patentability in the 90/013,587 reexam, the independent claims were allowed for reasons set forth by Examiner, see summary of prosecution history *supra*.

See the Request at, e.g., Sections V (pages 3-7) and VI, C. (pages 18-23) and Exhibit C, e.g., bridging pages 2-3 and page 8. Such sections of the instant Request set forth:

> **V. CITATION OF PERTINENT AND APPLICABLE PRIOR ART BELIEVED TO HAVE BEARING ON PATENTABILITY**
>
> ...

Requester notes that these references were not previously considered during the original prosecution of the Flick '278 patent, but that *the Beckert '363 patent, the Spaur '074 patent and the Suman '537 patent are being considered in the pending Flick '587 Reexam. However, these references are being presented in a new light in this Request.* In particular, the Examiner in the Flick '587 Reexam had requested "evidence relating to the use of device codes" as related to their inherent use in the Spaur '074 patent and the Suman '537 patent. ... Accordingly, Requester is *submitting this material prior art evidence in the form of the SAE HS- 3000 Manual published in 1994*.

The SAE HS-3000 Manual is one of numerous publications published by the Society of Automotive Engineers ("SAE") that *set forth the standards for communicating with vehicle devices via a vehicle data bus using various device codes*, as was used in the Spaur '074 patent, the Suman '537 patent, and the Beckert '363 patent in order to communicate with the vehicle devices. *Requester also notes that these communications standards have been federally mandated for all new vehicles sold in the United States since 1996.*

As detailed in the accompanying claim charts, *the SAE HS-3000 Manual provides details regarding hundreds of device codes*, or "PRN"" device codes, for communicating with vehicle devices, including standard codes and up to seven manufacturer specified vehicle device codes. *For example, SAE J2178/2, which starts on page 211 of the SAE HS-3000 Manual, provides the "Standardized Parameter Definitions" for standardized messages on SAE J1850 Class B networks. SAE J2178/2 sets out respective sets of device codes for a host of vehicle devices that may be present on a given vehicle.* For example, Table 2 on page 215, partially reproduced below, provides the address map of the SAE standard and reserved manufacturer specific (Reserved MFG) subgroups of messages for different classes of vehicle devices.

...

SAE J2178/2 provides *the details of device codes for hundreds of different vehicle devices* within the address map ranges indicated in the above table. Section 4 of SAE J2178/2 on page 213 specifies that three bits are used to define eight different device codes for a given vehicle device including a SAE standard device code for the specific type of vehicle device and seven manufacturer reserved device codes for that particular vehicle device.

Furthermore, the SAE HS-3000 Manual teaches a bus discovery procedure that can be used by systems interfacing with a vehicle bus, which involves communicating with vehicle devices using at least one vehicle device code from among a plurality thereof for different vehicles. In particular, the bus discovery procedure sends a plurality of device codes, referred to as "mode 1 PID 0

response message" in a manner appropriate for each of the SAE J1850 41.6 Kbps PWM bus, SAE J1850 10.4 Kbps VPW, and ISO 9141-2 in order to determine a type of bus used in a vehicle. (See SAE HS-3000 Manual section 6.5.1 on page 37).

Accordingly, the Beckert '363 patent, Spaur '074 patent, and the Suman '537 patent are each being presented in a new light in view of the SAE HS-3000 Manual and continue to raise substantial new questions of patentability with respect to the Flick '278 patent. Requester also notes that *the Chou '499 patent* was not previously considered in either the original prosecution of the Flick '278 patent or the currently pending Fick '587 Reexam and that this prior art reference *presents a substantial new question of patentability* with respect to the Flick '278 patent.

VI. STATEMENTS POINTING OUT EACH SUBSTANTIAL NEW QUESTION OF PATENTABI LITY

...as explained in greater detail below, *A) the Beckert '363 patent; B) the Spaur '074 patent; C) the Suman '537 patent; and D) the Chou '499 patent either alone or in combination with the SAE HS-3000 Manual,* all of which were published more than a year prior to the earliest priority date to which the Flick '278 patent is entitled to, *raise substantial new questions of patentability with respect to the Flick '278 patent.*

...

C. U.S. Patent No. 6,028,537 to Suman (inherently disclosing the SAE HS-3000 Manual)

The Suman '537 patent issued February 22, 2000 and the SAE HS-3000 Manual published in 1994 and therefore are prior art to the Flick '278 patent under 35 U.S.C. §§102(a), 102(b) and 102(e). These references were not considered during the original prosecution of the Flick '278 patent, but the Suman '537 patent is currently being considered in the Flick '587 Reexam. Furthermore, as noted above ..., the Examiner in the Flick '587 Reexam had requested evidence related to the use of device codes as related to the Suman '537 patent, ... Accordingly, Requester is submitting material prior art, in particular, the SAE HS-3000 Manual which provides material evidence related to the use of device codes as related to the Suman '537 patent. Accordingly, the Suman '537 patent is being presented in a new light in view of the SAE HS-3000 Manual and continues to raise a substantial new question of patentability.

1. Technological Teaching: Obtaining and Transmitting Location Data using

a Standard Vehicle Bus and Multi-Vehicle Compatibility

The Suman '537 patent teaches a vehicle communication and control system including a wireless communications device, a vehicle location determination device, and a controller capable of communicating with a variety of vehicle devices via a standardized vehicle data bus....

...

The Suman '537 patent notes that the multiplexing scheme (e.g., item 744 illustrated in Fig. 44 above) is set forth in *SAE standard J1850* and *"is universally used in the automotive industry." The SAE HS-3000 Manual* is a publication that *provides details regarding the SAE J1850 standard*, and provides implementation *details for communicating with vehicle devices on a plurality of different makes and models of vehicles via an SAE J1850 bus*.

Accordingly, a vehicle controller (as illustrated in Fig. 44 above) implemented *according to the SAE J1850 standard* would communicate with a plurality of vehicle devices using the SAE messaging protocols defined in *SAE J2178 (Class B Data Communication Network Messages) as required by the SAE J1850 standard, which provides details of the various device codes* that may be utilized to communicate with hundreds of vehicle devices, ...

...

...As noted above, *vehicle data busses, such as those described by the SAE HS-3000 Manual have been federally mandated for inclusion in all vehicles sold in the United States since at least 1996.*

Thus, the Suman '537 patent is being presented in a new light in view of the SAE HS- 3000 Manual that raises a substantial new question of patentability with respect to the Flick '278 patent.

...

3. Substantial New Question of Patentability as to Claims 1 - 22 because the Suman '537 patent, including the SAE HS-3000 Manual, Teaches all Claim Elements

Each of claims 1 - 22 require a multi-vehicle compatible controller coupled to a vehicle data bus for communication thereover with at least one vehicle device. As shown above, and in more detail in the claim charts attached as Exhibit D [sic], *the Suman '537 patent, which inherently discloses communicating with vehicle devices in accordance with the manner disclosed in the SAE HS-3000 Manual, discloses this and all other required limitations*, explicitly disclosing

> communicating via a 'vehicle data bus', 'using at least one corresponding device code from among a plurality thereof for different vehicles', and 'downloading interface'. *In particular, the manner in which the Suman '537 patent's disclosure requires "using at least one corresponding vehicle device code from among a plurality thereof for different vehicles" can be appreciated by reviewing the details of the disclosed processes as set out in the SAE HS-3000 Manual*, which provides the implementation requirements for the multiplexing communication circuit 744 described in the Suman '537 patent. *Accordingly, it is submitted that all aspects of claims 1 - 22 are disclosed by the Suman '537 patent, which inherently discloses use of the processes required by the standards contained in the SAE HS-3000 Manual,* in at least as complete detail as contained in the claims. A reasonable examiner would consider the teachings important in deciding whether or not claims 1 - 22 of the Flick '278 patent are patentable. For these reasons, the Suman '537 patent in view of the SAE HS-3000 Manual raises a substantial new question of patentability as to claims 1 - 22.
> (Underlined italics added.)

Therefore, Suman '537 (e.g. "The multiplexing scheme is set forth in SAE standard J1850 and is universally used in the automotive industry) is being presented viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request (e.g. the details/vehicle device codes/implementations constituting the SAE standard J1850 provided in the form of SAE HS-3000 Manual) raising a substantial new question of patentability with respect to "the multi-vehicle compatible controller as recited in independent claims 1,13 and 18 , i.e. "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles".

Given the teachings of the combination of Suman '537 and SAE HS-3000, a reasonable examiner would consider these teachings important in evaluating the patentability of the

independent claims of the '278 patent. This art was not applied/so combined during a previous examination of US Patent No. 8,032,278, and the claims at issue are not the subject of a final holding by a Federal Court. Accordingly, prior art patents and printed publications asserted by the Request raise a substantial question of patentability with respect to at least one claim, e.g. claim 1, of the '278 patent.

Spaur '074:

Requester asserts **Spaur '074** alone or in combination with SAE HS-3000, raises a substantial new question of patentability as to claims 1-22 of the '278 patent. See, e.g., page 7 of the Request.

The prosecution history indicates that SAE HS-3000 was not of record during the prosecution of any application to which the benefit of priority is claimed. Accordingly, such references is not precluded from raising a substantial new question of patentability.

Spaur '074 however was not only cited but applied by the examiner during the prosecution of at least '587 reexam.

Accordingly, at least the **Spaur '074** reference/evidence is "old art". However, as set forth *supra*, e.g., MPEP 2242 states:

> *"for example, a substantial new question of patentability may be based solely on old art where the old art is being presented viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request."*

In this instance, Requester, see, e.g., Sections V (pages 3-7) and VI, B. (pages 14-18) of the Request, asserts the combination of **'074** (previously before/considered by the Examiner

during the examination/prosecution of the '587 reexam) with SAE HS-3000, see *supra*, a combination which was not considered during prosecution since the reference to, e.g., SAE HS-3000 was not even cited during prosecution. Accordingly, such combination is not precluded from raising a substantial new question of patentability.

During prosecution of the '272 application that led to the issuance of the '278 patent and the confirmation of patentability in the 90/013,587 reexam, the independent claims were allowed for reasons set forth by Examiner, see Summary of Prosecution History *supra*.

Finally, see the Request at, e.g., Sections V (pages 3-7), and VI, B. (pages 14-18) and Exhibit D, e.g., bridging pages 4-5 and page 9-10. Such section V of the instant Request is set forth *supra* and section VI, B. sets forth:

> **VI. STATEMENTS POINTING OUT EACH SUBSTANTIAL NEW QUESTION OF PATENTABI LITY**
>
> …as explained in greater detail below, *A) the Beckert '363 patent; B) the Spaur '074 patent; C) the Suman '537 patent; and D) the Chou '499 patent either alone or in combination with the SAE HS-3000 Manual,* all of which were published more than a year prior to the earliest priority date to which the Flick '278 patent is entitled to, *raise substantial new questions of patentability with respect to the Flick '278 patent.*
>
> …
>
> **B. *U.S. Patent No. 5, 732,074 to Spaur in view of the SAE HS-3000 Manual***
>
> …Furthermore, as noted above…, the Examiner in the Flick '587 Reexam had requested evidence related to the use of device codes as related to the Spaur '074 patent, … Accordingly, Requester is submitting the SAE HS-3000 Manual which provides material evidence related to the use of device codes as related to the Spaur '074 patent. Accordingly, the Spaur '074 patent is being presented in a new

light in view of the SAE HS-3000 Manual and continues to raise a substantial new question of patentability.

1. Technological Teaching: Obtaining and Transmitting Location Data using a Standard Vehicle Bus and Vehicle Device Codes for Different Vehicles
The Spaur '074 patent teaches a controller having a wireless device, a direct communications port, and a connection to a vehicle standardized network that can be utilized to read data from vehicle devices and transmit that data via the wireless device....

...

The Spaur '074 patent teaches communicating with vehicle devices via a "standardized network ... commonly used in a number of makes and models of vehicles" (Spaur '074 patent, col. 10, lines 18-21). *The SAE standards, and in particular the SAE HS-3000 Manual, were published for the specific purpose of teaching people of ordinary skill in the art how to communicate with vehicle devices via one of the "standardized networks" present within a vehicle.*

In particular, *the SAE HS-3000 manual provides details of communicating with a plurality of vehicle devices* using the SAE messaging protocols defined in SAE J2178 (Class B Data Communication Network Messages), ...

...

Accordingly, it would have been obvious to utilize *the teachings described in the SAE HS-3000 Manual because the Spaur '074 patent expressly directs using standards, such as the SAE standards as described by the SAE HS-3000 Manual, for the purpose for which the standards were created*. Thus, the Spaur '074 patent in view of the SAE HS-3000 Manual disclose technological teachings that the Examiner previously found to be missing from the prior art of record disclosed in the Flick '278 patent.

...

3. Substantial New Question of Patentability as to Claims 1 - 22 Because Spaur '074 in view of the SAE HS-3000 Manual Teaches all Claim Elements
Each of claims 1 - 22 require a multi-vehicle compatible controller coupled to a vehicle data bus for communication thereover with at least one vehicle device. As shown above, and in more detail in the claim charts attached as Exhibit D, *the Spaur '074 patent in view of the SAE HS-3000 Manual discloses this and all other required limitations*, explicitly disclosing communicating via a "vehicle data bus", "using at least one corresponding device code from among a plurality thereof for different vehicles", and "downloading interface". In particular, the

> limitation "using at least one corresponding vehicle device code from among a plurality thereof for different vehicles" *is discussed in greater detail in the SAE HS-3000 Manual, which provides the implementation details for communicating via the standardized vehicle network* described in the Spaur '074 patent.
>
> Accordingly, it would have been obvious to one skilled in the art that all aspect of claims 1 - 22 are disclosed by the Spaur '074 patent in view of the SAE HS-3000 Manual. A reasonable examiner would consider the teachings important in deciding whether or not claims 1 - 22 of the Flick '278 patent are patentable. For these reasons, the Spaur '074 patent in view of the SAE HS-3000 Manual raises a substantial new question of patentability as to claims 1 - 22.
> (Underlined italics added.)

Therefore, Spaur '074 (e.g. "The vehicle standardized network…includes a controller unit…that provides appropriate message and data handling functions associated with sending and receiving information including data from each of a plurality of physical vehicle devices…that are operatively connected to a bus…of the vehicle standardized network…the vehicle standardized network is an established and previously developed network that interfaces with components in a vehicle…in order to provide desired or requested data concerning operations or status of these components", "…this further standardized network is a network that has been previously devised and is commonly used in a number of makes and models of vehicles") is being presented viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request (e.g. the details/vehicle device codes/implementations constituting a previously established and developed vehicle standardized network that provides appropriate message and data handling functions associated with sending and receiving information including data from each of a plurality of physical vehicle devices that are operatively connected to a bus and used in

a number of makes and models of vehicles, e.g. the SAE standards, e.g. J1850, provided in the form of SAE HS-3000 Manual) raising a substantial new question of patentability with respect to "the multi-vehicle compatible controller as recited in independent claims 1,13 and 18 , i.e. "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles".

Given the teachings of the combination of Spaur '074 and SAE HS-3000, a reasonable examiner would consider these teachings important in evaluating the patentability of the independent claims of the '278 patent. This art was not applied/so combined during a previous examination of US Patent No. 8,032,278, and the claims at issue are not the subject of a final holding by a Federal Court. Accordingly, prior art patents and printed publications asserted by the Request raise a substantial question of patentability with respect to at least one claim, e.g. claim 1, of the '278 patent.

Beckert '363:

Requester asserts **Beckert '363** alone or in combination with SAE HS-3000, raises a substantial new question of patentability as to claims 1-22 of the '278 patent. See, e.g., page 7 of the Request.

The prosecution history indicates that SAE HS-3000 was not of record during the prosecution of any application to which the benefit of priority is claimed. Accordingly, such references is not precluded from raising a substantial new question of patentability.

Beckert '363 however was not only cited but applied by the examiner during the prosecution of at least '587 reexam.

Accordingly, at least the **Beckart '363** reference/evidence is "old art". However, as set forth *supra*, e.g., MPEP 2242 states:

> *"for example, a substantial new question of patentability may be based solely on old art where the old art is being presented viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request."*

In this instance, Requester, see, e.g., Sections V (pages 3-7) and VI, A. (pages 7-14) of the Request, asserts the combination of **'363** (previously before/considered by the Examiner during the examination/prosecution of the '587 reexam) with SAE HS-3000, see *supra*, a combination which was not considered during prosecution since the reference to, e.g., SAE HS-3000 was not even cited during prosecution. Accordingly, such combination is not precluded from raising a substantial new question of patentability.

During prosecution of the '272 application that led to the issuance of the '278 patent and the confirmation of patentability in the 90/013,587 reexam, the independent claims were allowed for reasons set forth by Examiner, see Summary of Prosecution History *supra*. Note also the June 2016 and July 2016 Interview Summaries with regard to '363 in Summary of Prosecution History *supra*.

Finally, see the Request at, e.g., Sections V (pages 3-7), and VI, A. (pages 7-14) and Exhibit B, e.g., bridging pages 4-6 and page 11-12. Such section V of the instant Request is set forth *supra* and section VI, A. sets forth:

VI. STATEMENTS POINTING OUT EACH SUBSTANTIAL NEW QUESTION OF PATENTABI LITY

…as explained in greater detail below, *A) the Beckert '363 patent; B) the Spaur '074 patent; C) the Suman '537 patent; and D) the Chou '499 patent either alone or in combination with the SAE HS-3000 Manual,* all of which were published more than a year prior to the earliest priority date to which the Flick '278 patent is entitled to, *raise substantial new questions of patentability with respect to the Flick '278 patent.*

A. U.S. Patent No. 6,009,363 to Beckert (inherently disclosing the SAE HS-3000 Manual)

…These references were not considered during the original prosecution of the Flick '278 patent. However, the Beckert '363 patent was considered during the Flick '587 Reexam, but was inexplicably withdrawn from the Flick '587 Reexam with no reasons being made on the record as to why this rejection was being withdrawn. Accordingly, Requester is again resubmitting this reference for at least the following reasons:

1. No Reasons Provided Why Beckert '363 Patent Withdrawn From Rejection in the Flick '587 Reexam --- Examiner Interview Summary filed 6-21- 2016 in the Flick '587 Reexam

…

Accordingly, Requester is re-submitting the Beckert '363 patent, *including the SAE HS- 3000 Manual which is inherently disclosed by the OBD II interface being used in the Beckert '363 patent* (see e.g., Beckert '363 col. 1, lines 32 - 35 stating: "Most late model vehicles are also constructed with a diagnostic system that analyzes performance of the vehicle's engine, transmission and fuel system, and other components (1996 or later for OBD II, 1993 or later for OBD I)..."…. These references provide new technological teachings that raise a substantial new question of patentability with respect to the Flick '278 patent.

2. Technological Teaching: Transmitting Location Data, Communicating Via an OBD II Vehicle Data Bus, and Downloading Means Downloading Enabling Data

The Beckert '363 patent teaches a vehicle computer system including a wireless communications device, a vehicle location determination device, a downloading interface, and a controller capable of communicating with a variety of vehicle

devices via the OBD II standardized vehicle data bus mandated for inclusion in 1996 or later model vehicles. …

The Beckert '363 patent also incorporated by reference the disclosure of U.S. Patent 5,794,164 to Beckert et al. (the Beckert '164 patent) in its entirety at col. 7, lines 44-51. The Beckert '164 patent provides additional detail concerning the modules of the vehicle computer system disclosed in the Beckert '363 patent and specific detail concerning the OBD interpreter and APIs that are exposed to remote devices by the vehicle computer system, including a diagnostic API (amongst others). *The SAE standards, and in particular the SAE HS-3000 Manual, were published for the specific purpose of teaching people of ordinary skill in the art how to communicate with vehicle devices via the OBD II interface.* In particular, the SAE HS- 3000 Manual teaches a bus discovery procedure that can be used by systems interfacing with a vehicle bus via an OBD II diagnostic connector, which involves communicating with vehicle devices using at least one vehicle device code from among a plurality thereof for different vehicles. …

Accordingly, the Beckert '363 patent teaches that the modules inherently disclose the use of the bus discovery protocols that involve sending *a plurality of device codes for different vehicles required by the SAE standards as that specify the implementation details for the OBD II interface*. Furthermore, it would have been obvious to utilize the teachings described in the SAE HS-3000 Manual because the Beckert '363 patent expressly directs communicating with the OBD system built into the vehicle using the OBD interface. Thus, the Beckert '363 patent is being presented in a new light in view of the SAE HS-3000 Manual that raises a substantial new question of patentability.

…

4. Substantial New Question of Patentability as to Claims 1 - 22 because the Beckert '363 Patent in view of the SAE HS-3000 Manual Teaches all Claim Elements

Each of claims 1 - 22 require a multi-vehicle compatible controller coupled to a vehicle data bus for communication thereover with at least one vehicle device. As shown above, and in more detail in the claim charts attached as Exhibit B, *the Beckert '363 patent in view of the SAE HS-3000 Manual disclose this and all other required limitations*, explicitly disclosing communicating via a "vehicle data bus" and a "downloading interface". Accordingly, all aspects of claims 1-22 are disclosed by the Beckert '363 patent and the SAE HS-3000 Manual. A reasonable examiner would consider the teachings important in deciding whether or not claims 1-22 of the Flick '278 patent are patentable. For these reasons, the Beckert '363 patent, including the SAE HS-3000 Manual, raises a substantial new question of patentability as to claims 1-22.

(Underlined italics added.)

Therefore, Beckart '363 (e.g. "Most late model vehicles are also constructed with a diagnostic system that analyzes performance of the vehicle's engine, transmission and fuel system, and other components (1996 or later for OBD II, 1993 or later for OBD I). The diagnostic system can be coupled to an external computer to download or monitor diagnostic information that is useful to a vehicle mechanic during servicing of the vehicle.", "...the vehicle computer system...can be used to integrate multiple vehicle-related systems onto one open platform hardware and software architecture. For instance, the vehicle computer system...can serve as, a navigation system, a communications system, a security system, and a diagnostics system. ...FIG. 2 shows the computer 22 according to one implementation of the invention. Computer 22 has three primary modules: a faceplate module 60, a support module 62, and a computer module 64. The computer module 64 is operatively connected to the support module 62 via a multi-bit bus 66. In FIG. 2, the support module 62 is also connected to a universal serial bus (USB) hub 70 via a multi-bit connector 72 (e.g., 8 bits). The USB hub 70 provides connections to many peripheral devices (e.g., 128 devices). Example peripheral devices include the OBD (On Board Diagnostic) system 28, the security system 26, navigation system 74, a wireless link 76 to the Internet, a CD-ROM changer 78, a TV tuner 80, and user I/O devices such as a joystick, keyboard or a mouse 82. This USB hub could be separate as shown in FIG. 2 or it could be integrated into one or more of the USB peripherals.", "A more detailed explanation of the three modules in the vehicle computer system is provided in ...U.S. Pat. No. 5,794,164 ... incorporated herein by reference" and thereby, "The computer module 64 has a navigation

system 112 which includes both a GPS (global positioning system) receiver and a map application, such as Automap.TM., a program produced by Microsoft Corporation. A security system 114 is provided in the computer module 64 to manage vehicle security. The security system 114 monitors the security sensors 26 (FIG. 1) for any potential threat of theft or vandalism. The security system 114 is connected to actuators which lock/unlock doors and windows, and to an alarm which can be activated upon detection of unwanted tampering. An OBD (On Board Diagnostic) interpreter 116 is provided in the computer module to communicate with the OBD system built into the vehicle by the manufacturer. The OBD interpreter 116 interprets the status data received and provides performance related information from the vehicle's OBD system to the microprocessor 100. Also, commands can be provided to the interpreter which allows non-critical car systems to be controlled.") is being presented viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request (e.g. the details/vehicle device codes/implementations constituting On Board Diagnostics for Light and Medium Duty Vehicle standards , e.g. the SAE standard J1850, provided in the form of SAE HS-3000 Manual) raising a substantial new question of patentability with respect to "the multi-vehicle compatible controller as recited in independent claims 1,13 and 18 , i.e. "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles".

Given the teachings of the combination of Beckart '363 and SAE HS-3000, a reasonable examiner would consider these teachings important in evaluating the patentability of the

independent claims of the '278 patent. This art was not applied/so combined during a previous examination of US Patent No. 8,032,278, and the claims at issue are not the subject of a final holding by a Federal Court. Accordingly, prior art patents and printed publications asserted by the Request raise a substantial question of patentability with respect to at least one claim, e.g. claim 1, of the '278 patent.

Chou'499:

Requester asserts that **Chou '499** either alone or in combination with SAE HS-3000, raises a substantial new question of patentability as to claims 1-22 of the '278 patent. See, e.g., page 7 of the Request.

The prosecution history indicates that SAE HS-3000 was not of record during the prosecution of any application to which the benefit of priority is claimed. Accordingly, such reference is not precluded from raising a substantial new question of patentability.

Chou '499 was not explicitly cited and discussed during the prosecution of the '278 patent or the '587 Reexam. However '499 was cited and discussed during the prosecution of the '972 application, see Summary of Prosecution History *supra*

Accordingly, at least the **Chou '499** reference/evidence is "old art". However, as set forth *supra*, e.g., MPEP 2242 states:

> *"for example, a substantial new question of patentability may be based solely on old art where the old art is being presented viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request."*

In this instance, Requester, see, e.g., Sections V (pages 3-7) and VI, D. (pages 23-25) of the Request, asserts **'499** (previously before/considered by the Examiner during

examination/prosecution of the '972 application) alone or in combination of '363 with SAE HS-3000, see *supra*, a combination which was not considered during prosecution since the reference to, e.g., SAE HS-3000 was not even cited during prosecution. Accordingly, such combination is not precluded from raising a substantial new question of patentability.

During prosecution of the '272 application that led to the issuance of the '278 patent and the confirmation of patentability in the 90/013,587 reexam, the independent claims were allowed for reasons set forth by Examiner, see Summary of Prosecution History *supra*.

Finally, see the Request at, e.g., Sections V (pages 3-7), and VI, D. (pages 23-25) and Exhibit B, e.g., bridging pages 4-5. Such section V of the instant Request is set forth *supra* and section VI, D. sets forth:

> **VI. STATEMENTS POINTING OUT EACH SUBSTANTIAL NEW QUESTION OF PATENTABI LITY**
>
> ...as explained in greater detail below, *A) the Beckert '363 patent; B) the Spaur '074 patent; C) the Suman '537 patent; and D) the Chou '499 patent either alone or in combination with the SAE HS-3000 Manual,* all of which were published more than a year prior to the earliest priority date to which the Flick '278 patent is entitled to, *raise substantial new questions of patentability with respect to the Flick '278 patent.*
>
> ...
>
> ***D. U.S. Patent No. 6,330,499 to Chou et al.***
>
> The Chou '499 patent issued December 11, 2001 and therefore is prior art to the Flick '278 patent under 35 U.S.C. §§ 102(a), 102(b), and 102(e). This reference was not considered during the prosecution of the Flick '278 patent or the currently pending Flick '587 Reexam. This reference provides a new technological teaching that raises a substantial new question of patentability.

1. Technological Teaching: Obtaining and Transmitting Location Data using a Standard Vehicle Bus and using model dependent codes

The Chou '499 patent teaches a vehicle information system including a wireless communication device, a vehicle location determining device, and a controller capable of communicating with a variety of vehicle devices *via a standardized vehicle data bus using a vehicle bus interface that may support different vehicle bus standards such as CAN (Controller Area Network) and the Society of Automotive Engineers' SAE J1850 - Class B Data Communications Network Interface.* (Chou, col. 3, lines 33-40)....

...

The Chou '499 patent further teaches multi-vehicle compatibility, whereby a vehicle bus adaptor (120C) "translates messages from the fault detector into the language of the vehicle bus. The fault code specifications and protocols of the vehicle may be ***Original Equipment Manufacturer (OEM) and model dependent*** .... A listing of such codes may be found in the publication of the *Society of Automotive Engineers, "SAE On-Board Diagnostics for Light and Medium Duty Vehicle Standards Manual"*. (Chou, col. 4, lines 25-35, [bold original] emphasis added).

Thus, the Chou '499 patent *discloses technological teaching that the Examiner previously found to be missing from the prior art of record disclosed in the Flick '278 patent.*

...

3. Substantial New Question of Patentability as to Claims 1 - 22 because the Chou '499 Patent Teaches all Claim Elements

Each of claims 1 - 22 require a multi-vehicle compatible controller coupled to a vehicle data bus for communication thereover with at least one vehicle device. As shown above, and in more detail in the claim charts attached as Exhibit E, *the Chou '499 patent discloses this and all other required limitations,* explicitly disclosing communicating via a "vehicle data bus", translating "messages from the fault detector into the language of the vehicle bus" where the fault code specifications may be "Original Equipment Manufacturer (OEM) and model dependent" and a downloading interface for permitting downloading of enabling data.

Accordingly, it is submitted that all aspect of claims 1 - 22 are disclosed by the Chou '499 patent. A reasonable examiner would consider the teachings important in deciding whether or not claims 1 - 22 of the Flick '278 patent are patentable.

> For these reasons, the Chou '499 patent raises a substantial new question of patentability as to claims 1 - 22.
> (Underlined italics added.)

Therefore, Chou '499 (e.g. "The processor 300 is coupled to a vehicle bus 335 through a vehicle bus interface 330....The vehicle bus interface may support one of vehicle bus standards such as CAN (Controller Area Network) and the Society of Automotive Engineers' SAE J1850 - Class B Data Communication Network Interface. Alternatively, the processor supports some or all of the functions of the vehicle bus interface and connects directly to the vehicle bus 335. The vehicle bus shown in FIG. 2 is an inherent part of all new automobiles. The dotted line is used as an indication that the vehicle bus is built into the vehicle." or "The vehicle bus interface 120 includes the following modules: vehicle bus adapter 120C, fault detector 120B, and diagnostic data service 120A. The fault detector 120B polls the vehicle bus 104 through the vehicle bus adapter 120C checking for fault codes reported by the vehicle ECUs 103. The vehicle bus adapter 120C translates the messages received from the vehicle bus into the language of the fault detector. It also translates messages from the fault detector into the language of the vehicle bus. The fault code specifications and protocols of the vehicle may be Original Equipment Manufacturer (OEM) and model dependent. The term 'vehicle fault codes' is meant to be synonymous with the term 'trouble code' or 'diagnostic trouble code'. A listing of such codes may be found in the publication of the Society of Automotive Engineers, 'SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual'. The diagnostic data service 120A accepts request for vehicle parametric data and retrieves the data using the vehicle bus adapter.", "The remote service center 200 of FIG. 3 comprises a diagnostic server 201 that has access to data related to the vehicle such as as-built, history, diagnostics, warranty, service

information and failure mode data. The diagnosis server 201 is linked to the data repository 203 via a TCP/IP link, LAN, or the like", "...remote health monitoring and diagnostics shares many features with other automotive applications and services. It may be desirable to bundle the remote health monitoring and diagnostics with other services or to extend it with related application functions. For example, the remote diagnostics service could certainly be offered on top of an Emergency/Mayday service (e.g., 'OnStar'). Other applications and services that can be developed or bundled as extensions of the diagnostics services include: breakdown service, network diary, vehicle user manual update, OEM Callback Services, fleet management, theft prevention, vehicle parameter update/change, remote vehicle access, concierge services, etc.") is being presented viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request (e.g. the details/vehicle device codes/implementations constituting On Board Diagnostics for Light and Medium Duty Vehicle standards, e.g. the SAE standard J1850-Class B Data Communications Network Interface beginning on page 146, provided in the form of SAE HS-3000 Manual or being presented other than for its teachings of "...a user interface for accepting at least one command from a user and sending at least one alert to the user (column 3, lines 5-15)") raising a substantial new question of patentability with respect to "the multi-vehicle compatible controller as recited in independent claims 1,13 and 18 , i.e. "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles".

Given the teachings of the combination of Chou '499 and SAE HS-3000, a reasonable examiner would consider these teachings important in evaluating the patentability of the independent claims of the '278 patent. This art was not applied/so combined during a previous examination of US Patent No. 8,032,278, and the claims at issue are not the subject of a final holding by a Federal Court. Accordingly, prior art patents and printed publications asserted by the Request raise a substantial question of patentability with respect to at least one claim, e.g. claim 1, of the '278 patent.

Conclusion

Accordingly, as a substantial new question of patentability is present, reexamination is granted, see MPEP 2242. Claims 1-22 of '278 **will be** reexamined.

Correspondence

8. **All** correspondence relating to this ex parte reexamination proceeding should be directed:

By Mail to: Mail Stop *Ex Parte* Reexam
Central Reexamination Unit
Commissioner for Patents
United States Patent & Trademark Office

P.O. Box 1450
Alexandria, VA 22313-1450

By FAX to: (571) 273-9900
Central Reexamination Unit

By hand: Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Registered users of EFS-Web may alternatively submit such correspondence via the electronic filing system EFS-Web, at https://efs.uspto.gov/efile/my portal/efs-registered. EFS-Web offers the benefit of quick submission to the particular area of the Office that needs to act on the correspondence. Also, EFS-Web submissions are "soft scanned" (i.e., electronically uploaded) directly into the official file for the reexamination proceeding, which offers parties the opportunity to review the content of their submissions after the "soft scanning" process is complete.

Any inquiry concerning this communication should be directed to the Central Reexamination Unit at telephone number 571-272-7705.

Other useful telephone numbers:

Reexamination Practice (571) 272-7703

Reexamination Facsimile Transmission No. (571) 273-9900

/Karin M. Reichle/
Examiner, CRU
Art Unit 3992

Conferees:
/J. W./
Primary Examiner, Art Unit 3992

/WHC/
SPRS, Art Unit 3992

Order Granting Request For Ex Parte Reexamination	Control No. 90/013,851	Patent Under Reexamination 8032278
	Examiner Karin Reichle	Art Unit 3992

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

The request for *ex parte* reexamination filed *28 October 2016* has been considered and a determination has been made. An identification of the claims, the references relied upon, and the rationale supporting the determination are attached.

Attachments: a)☐ PTO-892, b)☒ PTO/SB/08, c)☐ Other: _____

1. ☒ The request for *ex parte* reexamination is GRANTED.

RESPONSE TIMES ARE SET AS FOLLOWS:

For Patent Owner's Statement (Optional): TWO MONTHS from the mailing date of this communication (37 CFR 1.530 (b)). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).**

For Requester's Reply (optional): TWO MONTHS from the **date of service** of any timely filed Patent Owner's Statement (37 CFR 1.535). **NO EXTENSION OF THIS TIME PERIOD IS PERMITTED.** If Patent Owner does not file a timely statement under 37 CFR 1.530(b), then no reply by requester is permitted.

/Karin Reichle/ Primary Examiner, Art Unit 3992	/J. W./ Primary Examiner, Art Unit 3992	

cc:Requester (if third party requester)

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90013851	8032278
	Examiner	Art Unit
	KARIN REICHLE	3992

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
Prosecution History set forth on BIB sheet reviewed. Also reviewed 90/013,659 and 90/013741 referred to in the Request.	11/16/2016	/KR/

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

PTO/SB/08a (07-09)
Approved for use through 07/31/2016. OMB 0651-0031
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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 2

Complete if Known	
Application Number	11/773,272
Filing Date	July 3, 2007
First Named Inventor	Kenneth E. Flick
Art Unit	3661
Examiner Name	Cuong H. Nguyen
Attorney Docket Number	C13-03896.RE2

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 5,732,074	03-24-1998	Spaur et al.	
		US- 5,794,164	08-11-1998	Beckert et al.	
		US- 6,009,363	12-28-1999	Beckert et al.	
		US- 6,028,537	02-22-2000	Suman et al.	
		US- 6,330,499	12-11-2001	Chou et al	
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]-Number[4]-Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T[6]

Examiner Signature	/Karin Reichle/	Date Considered	11/16/2016

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional). [2] See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /KR/

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 2 of 2

Complete if Known	
Application Number	11/773,272
Filing Date	July 3, 2007
First Named Inventor	Kenneth E. Flick
Art Unit	3661
Examiner Name	Cuong H. Nguyen
Attorney Docket Number	C13-03896.RE2

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
		SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual, SAE HS-3000, Society of Automotive Engineers, Inc., 1994 Edition.	
		SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual, SAE HS-3000, Society of Automotive Engineers, Inc., 1997 Edition.	

Examiner Signature	/Karin Reichle/	Date Considered	11/16/2016

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Applicant's unique citation designation number (optional). [2] Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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BIB DATA SHEET

CONFIRMATION NO. 8717

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
90/013,851	10/28/2016 RULE	701	3992	C13-03896.RE2

APPLICANTS

INVENTORS

8032278, Residence Not Provided;
OMEGA PATENTS, L.L.C. (PATENT OWNER), DOUGLASVILLE, GA;
DAVID H. KAVEH (3RD PTY REQ.), ANAHEIM, CA;
KPPB LLP, ANAHEIM, CA

**** CONTINUING DATA ****************************

This application is a REX of 11/773,272 07/03/2007 PAT 8032278
which is a CIP of 11/076,259 03/09/2005 PAT 7720597
which is a CON of 10/383,496 03/07/2003 PAT 7149623
which is a CON of 09/859,972 05/17/2001 PAT 6606561
which claims benefit of 60/264,811 01/29/2001
and claims benefit of 60/258,005 12/22/2000
and claims benefit of 60/251,552 12/06/2000
and claims benefit of 60/252,125 11/20/2000
and claims benefit of 60/236,890 09/29/2000
and claims benefit of 60/246,463 11/07/2000
and claims benefit of 60/222,777 08/03/2000
and claims benefit of 60/205,178 05/17/2000

**** FOREIGN APPLICATIONS ****************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****

Foreign Priority claimed ☐ Yes ☑ No 35 USC 119(a-d) conditions met ☐ Yes ☑ No Verified and Acknowledged /KARIN M REICHLE/ Examiner's Signature	☐ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
				22	3

ADDRESS

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ORLANDO, FL 32802-3791
UNITED STATES

TITLE

Vehicle Tracking Unit with Downloadable Codes and Associated Methods

FILING FEE RECEIVED	FEES: Authority has been given in Paper	☐ All Fees
12000	No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____

BIB (Rev. 05/07).

Reexamination	Application/Control No. 90013851	Applicant(s)/Patent Under Reexamination 8032278
	Certificate Date	Certificate Number

Requester Correspondence Address:	☐ Patent Owner	☒ Third Party

KPPB LLP
2400 EAST KATELLA AVENUE
SUITE 1050
ANAHEIM, CA 92806

LITIGATION REVIEW ☒	/KR/ (examiner initials)	11/16/2016 (date)
Case Name		Director Initials
Omega Patents, LLC v. Enfora, Inc., Northern District of Geor		
Omega Patents, LLC v. CalAmp Corp., Middle District of Florid		

COPENDING OFFICE PROCEEDINGS	
TYPE OF PROCEEDING	NUMBER
1.	

	/K.R./ Primary Examiner.Art Unit 3992

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/014,309	05/24/2019	8032278	C13-03896.RE3	8724

7590 07/10/2019

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EXAMINER
SAGER, MARK ALAN

ART UNIT	PAPER NUMBER
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MAIL DATE	DELIVERY MODE
07/10/2019	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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(THIRD PARTY REQUESTER'S CORRESPONDENCE ADDRESS)

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EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. *90/014,309* .

PATENT UNDER REEXAMINATION *8032278* .

ART UNIT *3992* .

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Order Granting Request For Ex Parte Reexamination	Control No. 90/014,309	Patent Under Reexamination 8032278	
	Examiner MARK A SAGER	Art Unit 3992	AIA (FITF) Status No

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

The request for *ex parte* reexamination filed 05/24/2019 has been considered and a determination has been made. An identification of the claims, the references relied upon, and the rationale supporting the determination are attached.

Attachments: a)☐ PTO-892, b)☑ PTO/SB/08, c)☐ Other: _____

1. ☑ The request for *ex parte* reexamination is GRANTED.

RESPONSE TIMES ARE SET AS FOLLOWS:

For Patent Owner's Statement (Optional): TWO MONTHS from the mailing date of this communication (37 CFR 1.530 (b)). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).**

For Requester's Reply (optional): TWO MONTHS from the **date of service** of any timely filed Patent Owner's Statement (37 CFR 1.535). **NO EXTENSION OF THIS TIME PERIOD IS PERMITTED.** If Patent Owner does not file a timely statement under 37 CFR 1.530(b), then no reply by requester is permitted.

/MARK SAGER/ Primary Examiner, Art Unit 3992		

cc:Requester (if third party requester)

Ou Decision

Third Party requester submitted a request for reexamination with a filing date of May 24, 2019, requesting reexamination of claims 1-22 of U.S. Patent No. 8,032,278 (hereinafter also referred to as '278). A substantial new question of patentability affecting claims 1-22 of U.S. Patent No. 8,032,278 in effect at this time is raised by the request for *ex parte* reexamination. Accordingly, claims 1-22 will be reexamined. For reference, numbered pages 5-50 discuss prosecution history while pages 50-77 discuss the SNQs herein.

Extensions of Time

Extensions of time under 37 CFR 1.136(a) will not be permitted in these proceedings because the provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Additionally, 35 U.S.C. 305 requires that reexamination proceedings "will be conducted with special dispatch" (37 CFR 1.550(a)). Extension of time in *ex parte* reexamination proceedings are provided for in 37 CFR 1.550(c).

Notification of Concurrent Proceedings

The patent owner is reminded of the continuing responsibility under 37 CFR 1.565(a) to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving Patent No. 8032278 throughout the course of this reexamination proceeding. The third party requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

Amendment in Reexamination Proceedings

Patent owner is notified that any proposed amendment to the specification and/or claims in this reexamination proceeding must comply with 37 CFR 1.530(d)-(j), must be formally

presented pursuant to 37 CFR 1.52(a) and (b), and must contain any fees required by 37 CFR 1.20(c).

Submissions

In order to insure full consideration of any amendments, affidavits or declarations or other documents as evidence of patentability, such documents must be submitted in response to the first Office action on the merits (which does not result in a close of prosecution). Submissions after the second Office action on the merits, which is intended to be a final action, will be governed by the requirements of 37 CFR 1.116, after final rejection and by 37 CFR 41.33 after appeal, which will be strictly enforced.

Waiver of Right to File Patent Owner Statement

In a reexamination proceeding, Patent Owner may waive the right under 37 C.F.R. 1.530 to file a Patent Owner Statement. The document needs to contain a statement that Patent Owner waives the right under 37 C.F.R. 1.530 to file a Patent Owner Statement and proof of service in the manner provided by 37 C.F.R. 1.248, if the request for reexamination was made by a third party requester, see 37 C.F.R 1.550(f). The Patent Owner may consider using the following statement in a document waiving the right to file a Patent Owner Statement:

WAIVER OF RIGHT TO FILE PATENT OWNER STATEMENT

Patent Owner waives the right under 37 C.F.R. 1.530 to file a Patent Owner Statement.

Service of Papers

After filing of a request for *ex parte* reexamination by a third party requester, any document filed by either the patent owner or the third party requester must be served on the other

party (or parties where two or more third party requester proceedings are merged) in the reexamination proceeding in the manner provided in 37 CFR 1.248. The document must reflect service or the document may be refused consideration by the Office. See 37 CFR 1.550(f).

References Asserted as Raising a Substantial New Question

The asserted substantial new question of patentability (SNQP) regarding claims 1-22 of the '278 Patent is based upon the following references:

(1) U.S. Patent No. **6,430,164** to **Jones et al**, published August 6, 2002, filed November 1 1999, (hereinafter also referred to as **'164, Jones**, or **Exhibit I**).

(2) "CellPort Delivers Wireless, Vehicle-Based Applications Platform; Announces CP2100 Mobile Network Server," published July 26, 1999, (hereinafter also referred to as **Cell Port Labs Press Release** or **Exhibit F**).

(3) "A Demonstration Project for the ITS Data Bus Prototype," published in 1998, (hereinafter also referred to as **Spelt** or **Exhibit G**).

(4) "Prep for a Multimedia Future," published August 19, 1999 (hereinafter also referred to as **Auto Electronics Publication** or **Exhibit H**).

(5) SAE HS-3000 publication, "SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual" (1994 and 1997 Editions), copyright 1994 and 1997 respectively, (hereinafter also referred to as **SAE HS-3000** or as **Exhibits J and K**).

The Request does not cite facts in Exhibit H to support any SNQP as required under 35 USC 304. However, as best understood, the facts in the publication are cited only in relation to dependent claims in proposed rejections. Thus, the publication is not further discussed herein.

Filing Date

The earliest effective filing date the '278 patent is entitled to is July 3, 2007 (see paragraph 2 of the 5/6/2016 non-final rejection of the 90/013,587 discussed *infra*).

Availability of Asserted References as Prior Art

The references to **Jones**, **Cell Port Labs Press Release**, **Spelt**, **Auto Electronics Publication** and **SAE HS-3000** include a/an publication/issue date more than one year prior to the effective filing date of June 3, 2007 of the '278 patent, see Request page 13, and thus are available as prior art under 35 USC 102(b) and 35 USC 103.

Summary of Prosecution History

U.S. Application 11/773,272 was filed on July 3, 2007 (hereinafter also referred to as '272 or the '272 application). The '272 application claimed continuity-in-part from Application No. 11/076,259 filed March 9, 2005 (hereinafter also referred to as '259 or the '259 application), which issued as Patent No. 7,720,597. The '259 application itself claimed continuity from Application No. 10/383,496 filed March 7, 2003 (hereinafter also referred to as '496 or the '496 application), which issued as Patent No. 7,149,623. The '496 application itself claimed continuity from Application No. 09/859,972 filed May 17, 2001 (hereinafter also referred to as '972 or the '972 application), which issued as Patent No. 6,606,561. The '972 application itself claimed the benefit of provisional patent application Serial Nos. 60/264,811 filed on January 29, 2001; 60/258,005, filed December 22, 2000; 60/251,552, filed December 6, 2000; 60/252,125, filed November 20, 2000; 60/236,890, filed September 29, 2000; 60/246,463, filed November 7, 2000; 60/222,777, filed August 3, 2000; and 60/205,178, filed May 17, 2000, the entire contents of each of which are incorporated herein by reference by '272.

Below are the pertinent Examiner's findings of fact relevant to this discussion:

'972 Application

U.S. Application 09/859,972 was filed on May 17, 2001. The application included a specification, claims, abstract and nine Figures. Claims 1-49 were directed to a vehicle tracking unit/system and claims 50-64 directed to a method for operating a vehicle tracking unit. On September 9, 2001, a preliminary amendment was filed including drawing modifications and a substitute specification.

A first non-final Office action was mailed by USPTO on January 23, 2001 rejecting all the claims. A PTO-892 accompanied such action cited US Patent No. **6,330,499** to **Chou et al**.

On December 13, 2002 a second FINAL rejection was mailed by the USPTO rejecting claims 1-29 and 50-50, allowing claims 30-49 and 58-64 and objecting to claims 5, 17 and 25. Claim 10 depending from claim 1 was rejected under 35 USC 103(a) as being unpatentable over Maggiora et al in view of "**Chou et al (6,330,499)**" (emphasis added) ("...Chou teaches a user interface for accepting at least one command from a user and sending at least one alert to the user (column 3, lines 5-15)").

In response an amendment after final was filed on February 7, 2003 amending claims 1, 13 and 22 and cancelling claims 5, 17, 25 and 50-57.

A Notice of Allowance indicating the allowability of claims 1-4, 6-16, 18-24, 26-49 and 58-64 was mailed by the USPTO on February 13, 2003.

The application issued as US Patent No. 6,606,561 on August 12, 2003.

'272 Application:

U.S. Application 11/773,272 was filed on July 3, 2007. The application included a specification, an abstract, thirty claims and fifteen Figures.

An Office action was mailed by USPTO on December 24, 2009. Claims 1-30 were subject to an election requirement between claims 1-22 drawn to a multi-vehicle tracking device/unit and claims 23-30 drawn to a method of using a multi-vehicle tracking device/unit.

A response to such Office Action was filed February 24, 2010. The response amended claims 13 and 18 to overcome various objections and provisionally elected claims 1-22 and withdrew claims 23-30.

A non-final Office action was mailed by USPTO on June 22, 2010. Claims 1-22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Brinkmeyer et al. (US Pat. 5,940, 007).

A response to such Office Action was filed October 22, 2010. The response cancelled claims 23-30. The response also presented remarks submitting that Brinkmeyer et al. failed to disclose the multi-vehicle compatible controller being coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles, as recited by independent claim 1.

Another non-final Office Action was mailed by the USPTO on January 5, 2011. Claims 1-22 were rejected. The prior art combination of Monroe (US Pat. 6,253,064 B1) in view of Brinkmeyer et al. (US Pat. 5,940,007) was used to reject the claims.

A response to the Office Action was filed on April 5, 2011. The response presented remarks, i.e.:

> ...the proposed prior art combination fails to disclose or fairly suggest each and every feature of the claimed invention. For example, the proposed prior art combination fails to disclose the multi-vehicle compatible controller coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles, as recited by independent Claim 1, for example....

> Furthermore, none of the applied prior art references discloses the multi-vehicle compatible tracking unit including a connector for temporary connection to a downloading device and a wireless receiver for temporary connection to a downloading device, as recited by the independent claims. Applicant notes that this claim feature enables a user to quickly download new vehicle codes into the multi-vehicle compatible tracking unit without removing and reinstalling the unit. (Emphasis original.)

A Notice of Allowance allowing claims 1-22 issued on June 28, 2011. The Notice set forth:

> Pending claims 1-22 are patentable over cited references of Monroe in view of Brinkmeyer et al., because these prior art do not make obvious a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising: a vehicle position determining device; a wireless communications device; a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information; said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device; and a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller; said downloading interface comprising a connector for temporary connection to a downloading device.

(See finally rejected claims 13 and 15).

The application issued as US Patent No. 8,032,278 on October 4, 2011.

'587 Reexam:

On September 14, 2015 a first request for *ex parte* reexamination of claims 1-22 of U.S. Patent No. 8,0320,278 was filed by a third party requester, hereinafter also referred to as TPR.

The Request at pages 10-11 in a section entitled "**V. STATEMENTS POINTING OUT EACH SUBSTANTIAL NEW QUESTION OF PATENTABILITY**" set forth:

> As explained in greater detail below, A) the *Suman '537* patent; B) the *Spaur '074* patent; and C) the Flick '876 patent, *either alone or in combination with a variety of references* published prior to the earliest claimed priority date of the Flick '278 patent, raise substantial new questions of patentability based on new teachings not previously considered or addressed in the prior examination of the Flick '278 patent.
>
> *A. U.S. Patent No. 6,028,537*
>
> ...
>
> **1. Technological Teaching: Obtaining and Transmitting Location Data using a Standard Vehicle Bus**
>
> The *Suman '537* patent teaches a vehicle communication and control system including a wireless communications device, a vehicle location determination device, and *a controller capable of communicating with a variety of vehicle devices via a standardized vehicle data bus*....
>
> Thus, the *Suman '537* patent discloses technological teachings that the Examiner previously found to be missing from the prior art of record disclosed in the Flick 2278 patent.
>
> ...
>
> 3. **Substantial New Question of Patentability as to Claims 1 - 22 because the Suman '537 Patent Teaches all Claim Elements**
>
> Each of claims 1- 22 require a multi-vehicle compatible controller coupled to a vehicle data bus for communication thereover with at least one vehicle device. As shown above, and in more detail in the claim charts attached as Exhibit B, the *Suman '537 patent discloses this and all other required limitations, explicitly disclosing communicating via a "vehicle data bus" and a "downloading interface."* Accordingly, it is submitted that *all aspects of claims 1 - 22 are disclosed by the Suman '537 patent* in at least as complete detail as contained in the claims. A reasonable examiner would consider the teachings important in deciding whether or not claims 1 - 22 of the Flick '278 patent are patentable. For

these reasons, the *Suman '537* patent raises a substantial new question of patentability as to claims 1 - 22.

B. U.S. Patent No. 5,732,074

...

1. Technological Teaching: Obtaining and Transmitting Location Data using a Standard Vehicle Bus

The *Spaur '074* patent teaches *a controller* having a wireless device, a direct communications port, and *a connection to a vehicle standardized network* that can be utilized to read data from vehicle devices and transmit that data via the wireless device....

Thus, *the Spaur '074* patent discloses technological teachings that the Examiner previously found to be missing from the prior art of record disclosed in the Flick '278 patent.

...

3. Substantial New Question of Patentability as to Claims 1-22 Because Spaur '074 Teaches all Claim Elements

Each of claims 1-22 require a multi-vehicle compatible controller coupled to a vehicle data bus for communication thereover with at least one vehicle device. As shown above, and in more detail in the claim charts attached as Exhibit C, *the Spaur '074 patent discloses this and all other required limitations, explicitly disclosing communicating via a "vehicle data bus" and a "downloading interface."* Accordingly, it would have been obvious to one skilled in the art *that all aspect of claims 1-22 are disclosed by the Spaur '074 patent.* A reasonable examiner would consider the teachings important in deciding whether or not claims 1-22 of the Flick '278 patent are patentable. For these reasons, the *Spaur '074* patent raises a substantial new question of patentability as to claims 1 - 22. (Bold original, underlined italics added.)

On November 10, 2015, an Order Granting the Request for *ex parte* reexamination was mailed by the USPTO. The Order set forth:

Key to each of these claims is the reaction [sic] of a "vehicle data bus" and a "downloading interface for permitting downloading of enabling data".

Suman teaches a vehicle data bus - an SAE standard J1850 [sic] See col. 37, lines 15 - 17. In addition Suman teaches a downloading interface for permitting downloading of enabling data. In particular, Suman teaches at col. 36, lines 31-52: "To achieve these aspects and other advantages, the vehicle accessory control system of the present invention includes a plurality of electrically-operated vehicle accessories, a receiver to be mounted in a vehicle *for receiving RF signals* from a land-based transmitter, and a control circuit coupled to the receiver and to the vehicle accessories *for controlling the operation of the vehicle accessories in accordance with a control program*. The RF signals include an address uniquely identifying the vehicle and a reprogramming signal for reprogramming the operation of at least one of the vehicle accessories. The control circuit includes an input interface for receiving information regarding a plurality of sensed conditions, control means for controlling the operation of the vehicle accessories in accordance with the control program and in response to sensed conditions received from the input interface. *The control circuit further includes reprogramming means for selectively reprogramming the control program in response to the detection of an RF signa*l including an address identifying the vehicle and the reprogramming signal, to selectively change the manner in which the control means controls the operation of at least one of the vehicle accessories."

There is a substantial likelihood that a reasonable examiner would have considered these teachings in Suman to be important in the determination of patentability of claims 1-22 of Flick '278. Accordingly, Suman raises a substantial new question of patentability, which question has not been previously raised.

Spaur teaches a vehicle data bus 46 and teaches that a wireless communications device can be utilized to download enabling data in a variety of forms including received information associated with vehicle devices and executable software downloaded from a remote site: "since bi-directional communications involving a vehicle are conducted wirelessly for at least a portion of the communications link, it is necessary for the Internet to communicate with an appropriate interface or network that wirelessly links with the vehicle. In one embodiment, the cellular digitized packet data (CDPD) network provides the desired link including arrangement of information being communicated and where the destination site, namely the particular vehicle, is found in the network." (See col. 2, lines 37 - 46).

Spaur also notes that a "combination of controller related components are containable in a vehicle for responding to requests from remote sites, obtaining and storing information associated with vehicle devices and running executable software that may be available in the program memory of the controller or

> downloaded from the remote site, while handling and configuring information including data that is communicative with the remote site over an established network, such as the Internet." (See col. 4, line 64 - col. 5, line 5).
>
> Furthermore, Spaur teaches that "the controller in the vehicle is also associated with an interface for communication with one or more available systems, such as an RS232 connection, an Ethernet connection and/or a PCMCIA unit. In a related embodiment, the controller includes a direct communications port for receiving and sending information without requiring the wireless device and the Internet connection to the wireless device." (See col. 4, lines 38 - 45).
>
> There is a substantial likelihood that a reasonable examiner would have considered these teachings in Spaur to be important in the determination of patentability of claims 1-22 of Flick '278. Accordingly, Spaur raises a substantial new question of patentability, which question has not been previously raised. (Underlined italics emphasis added.)

On January 8, 2016 the Patent Owner (hereinafter also referred to as PO) filed a statement asserting Suman '537 had already been considered in the parent '278 while Spaur '074 was similar to a co-assigned reference 7,366,892 which had also been considered in the parent '278. Furthermore, PO asserted:

> A. The Claims Are Patentable Over the Suman et al. '537 Patent
>
> The Suman et al. '537 patent is directed to vehicle personalization to be remotely effected by a service provider using a radio frequency (RF) system such as a paging or cellular system. A vehicle owner, wishing to reprogram a vehicle, calls the service provider who effects reprogramming of an option control by transmitting RF control signals to the vehicle from a land-based transmitter to a receiver mounted in the vehicle. Thus, because the service provider effects vehicle personalization, the vehicle owner need not have any technical knowledge as to how to operate the vehicle programming system. Vehicle personalization may also be provided for each person who may operate the vehicle.
>
> To achieve these aspects, the vehicle accessory control system includes a plurality of electrically-operated vehicle accessories, a receiver to be mounted in a vehicle for receiving RF signals from a land-based transmitter, and a control circuit coupled to the receiver and to the vehicle accessories for controlling the operation of the vehicle accessories in accordance with a control program. The RF signals

include an address uniquely identifying the vehicle and a reprogramming signal for reprogramming the operation of at least one of the vehicle accessories. The control circuit includes an input interface for receiving information regarding a plurality of sensed conditions, control means for controlling the operation of the vehicle accessories in accordance with the control program and in response to sensed conditions received from the input interface. The control circuit further includes reprogramming means for selectively reprogramming the control program in response to the detection of an RF signal including an address identifying the vehicle and the reprogramming signal, to selectively change the manner in which the control means controls the operation of at least one of the vehicle accessories.

The Patent Owner respectfully submits that the Suman et al. '537 patent fails to disclose, as recited in Claim 1, for example, a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. More particularly, the Suman et al. '537 patent fails to disclose a multi-vehicle compatible controller for cooperating with a vehicle position determining device and a wireless communications device to send vehicle position information, wherein the multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles, and wherein a downloading interface permits downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller. Along these lines, the Suman et al. '537 patent fails to disclose these features with the downloading interface comprising a connector for the temporary connection to a downloading device as recited in independent Claim 13, or a wireless receiver as recited in independent Claim 18.

None of the other references identified by the Examiner supply the deficiencies of the Suman et al. '537 patent. Accordingly, independent Claims 1, 13 and 18 are patentable. Their dependent claims, which recite further distinguishing features, are also patentable and require no further discussion herein.

B. The Claims Are Patentable Over the Spaur et al. '074 Patent

The Spaur et al. '074 patent discloses communication to and from a controller at the vehicle. As helpfully pointed out by the Examiner, the reference discloses an interface for the controller, such as an RS-232 connection, an Ethernet connection, a Personal Computer Memory Card International Association (PCMCIA) unit, or a direct communications port. Moreover, as noted at col. 4, lines 51-57, the Spaur et al. '074 patent recites:

> "[] each vehicle device on the CAN has its own IP designation or address so that the remote user can utilize this designation or address for communication with the selected vehicle device having that designation or address. The controller uses the received IP address or designation for the particular device and acts as a link or bridge for the remote user to the particular device".

In other words, the Spaur et al. '074 patent fails to disclose, as recited in Claim 1, a multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle. The Spaur et al. '074 patent fails to disclose a multi-vehicle compatible controller for cooperating with a vehicle position determining device and a wireless communications device to send vehicle position information, wherein the multi-vehicle compatible controller is to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles, and wherein a downloading interface permits downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller. The Spaur et al. '074 patent fails to disclose these features with the downloading interface comprising a connector for the temporary connection to a downloading device, as recited in independent Claim 13, or a wireless receiver, as recited in independent Claim 18.

None of the other references identified by the Examiner supply the deficiencies of the Spaur et al. '074 patent. Accordingly, the Patent Owner submits that independent Claims 1, 13 and 18 are patentable, and the dependent claims, which recite further distinguishing features, are also patentable and require no further discussion herein.

The Patent Owner also respectfully submits that the Spaur et al. '074 patent adds nothing to the deficiencies of the Suman et al. '537 patent - its respective deficiencies being pointed out above.

On March 8, 2016 TPR filed a reply to PO's statement. TPR reasserted that both the Spaur '074 and Suman '537 patents were not previously considered by the Examiner during the prosecution of the '278 and the Order's conclusion that these patents raised a substantial new question of patentability was correct. TPR continues:

> Furthermore, under the broadest reasonable interpretation, a multi-vehicle compatible tracking unit as recited in claims 1 - 22 of the Flick '278 patent could be compatible with ***multiple vehicles of the same year, make, and/or model***...
>
> ...*the SAE standard J1850 bus referenced in the Suman et al. '537 patent is "universally used in the automotive industry" (Suman et al. publication, column 37 lines 15 - 17) and therefore is used in many different vehicle year, makes, and models....*
>
> ...
>
> ...The above referenced portion of the Spaur et al. '074 [col. 4, lines 51-57] teaches connecting the disclosed multi-vehicle compatible controller to a CAN bus. *However the Spaur et al. '074 reference is not limited to disclosing CAN buses and teaches that the multi-vehicle compatible controller can connect with any of a variety of standardized buses*: "[o]ther available networks could be utilized instead of the CAN, such as Arcnet, which has a protocol similar to CAN". (Spaur et al. '074 patent, column 4, lines 5 - 7). *Standardized vehicle data buses include the CAN bus standard published by the CAN in Automation group. Standardized vehicle data buses also include the SAE J1850 bus standard published by the Society of Automotive Engineers.*
>
> ...
>
> ...Requester further notes that, since 1991, the CAN specification has required support for two message formats that can be present on any given vehicle's CAN bus (i.e. the CAN 11-bit message format and CAN 29-bit message 16 format). Therefore, communication via the CAN bus requires support for a plurality of different message formats for the different vehicle devices that may be present on any of the myriad of year, make, and model of vehicles that support the CAN bus, which includes a significant percentage of the vehicles sold in the U.S. dating back to 1991 and almost every passenger vehicle sold in the U.S. since 2008 due to Federal mandate.
> (Underlined italics emphasis added.)

TPR also cited pertinent and applicable additional prior art believed to have bearing on patentability, i.e. 1) the *Beckert '363* patent; 2) the Gelvin '008 patent; and 3) the Razavi et al. publication, raise substantial new questions of patentability based on new teachings not

previously considered or addressed in the prior examination of the Flick '278 patent.

Specifically:

1. U.S. Patent No. 5,794,164

....

a) Technological Teaching: Transmitting Location Data, Communicating Via One of the OBD II vehicle Data Bus Protocols and Downloading Means Downloading Enabling Data

The Beckert et al. '363 patent teaches a vehicle computer system including a wireless communications device, a vehicle location determination device, a downloading interface, and a controller capable of communicating with a variety of vehicle devices *via the OBD II standardized vehicle data bus mandated for inclusion in 1996 or later model vehicles. By way of background, at the time of the filing of the Beckert et al. '363 patent, federal mandate required all vehicles to conform to California Code of Regulations (CCR) 1968.1. CCR 1968.1 permitted vehicles to implement three different on-board to off-board network communications protocols*:

> (1.0) Either SAE Recommended Practice J1850, "Class B Data Communication Network Interface", July, 1995, or ISO 9141-2, "Road vehicles - Diagnostic Systems - CARB Requirements for Interchange of Digital Information," February, 1994, or ISO 14230-4, "Road vehicles - Diagnostic systems - KWP 2000 requirements for Emission-related systems," April, 1996, which are incorporated by reference, shall be used as the on-board to off-board network communications protocol. All SAE J1979 emission related messages sent to the J1978 scan tool over a J1850 data link shall use the Cyclic Redundancy Check and the three byte header, and shall not use inter-byte separation or checksums.

(1968.1 Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium Duty Vehicles and Engines, p 36, Exhibit U).

...

The Beckert et al. '363 patent also incorporates by reference the disclosure of U.S. Patent 5,794,164 to Beckert et al. (the Beckert et al. '164 patent) in its entirety at col. 7, lines 44-51. The Beckert et al. '164 patent provides additional detail concerning the modules of the vehicle computer system disclosed in the Beckert et al. '363 patent and specific detail concerning the OBD interpreter and APIs that are exposed to remote devices by the vehicle computer system, which

include a diagnostic API (amongst others). Thus, the Beckert et al. '363 patent discloses technological teachings that the Examiner previously found to be missing from the prior art of record disclosed in the Flick '278 patent.

c) Substantial New Question of Patentability as to Claims 1-22 because the Beckert et al, '363 Patent Teaches all Claim Elements

Each of claims 1-22 require a multi-vehicle compatible controller coupled to a vehicle data bus for communication thereover with at least one vehicle device. As shown above, and in more detail in the claim charts attached as Exhibit R, the Beckert et al. '363 patent discloses this and all other required limitations, explicitly disclosing communicating via a "vehicle data bus" and a "downloading interface." Accordingly, it is submitted that all aspects of claims 1 - 22 are disclosed by the Beckert et al. '363 patent in at least as complete detail as contained in the claims. A reasonable examiner would consider the teachings important in deciding whether or not claims 1 - 22 of the Flick '278 patent are patentable. For these reasons, the Beckert et al. '363 patent raises a substantial new question of patentability as to claims 1-22.
(Bold emphasis original, underlined italics added.)

A non-final action was mailed by the USPTO on May 6, 2016. Such action determined the earliest effective filing date for Flick '278 to be July 3, 2007. The action also determined that the '363, '008 and '225 references each taught a vehicle computer system including a wireless communications device, a vehicle location determination device, a downloading interface, and a controller capable of communicating with a variety of vehicle devices and therefore, there was a substantial likelihood that a reasonable examiner would have considered these teachings in *Beckert*, Gelvin and Razavi to be important in the determination of patentability of claims 1 -22 of Flick '278. Accordingly, *Beckert*, Gelvin and Razavi were determined to each raise a substantial new question of patentability, which question has not been previously raised. The action also included rejections of claims 1-22 under pre-AIA 35 U.S.C. 102(b) as being anticipated by *Suman* or *Beckert* and under pre-AIA 35 U.S.C. 103(a) as being unpatentable over *Spaur* in view of other references used for the teaching of location detection. Finally the action

concluded with the Examiner finding the PO'S remarks regarding the art being previously considered and the claim features not being shown thereby not persuasive.

> On June 16, 2016 a personal interview was held. The PTOL-404 Summary set forth:
>
> Description of the general nature of what was agreed to if an agreement was reached, or any other comments: Spaur and Suman references were discussed. Examiner agreed to drop the 102 rejection based upon Beckert. *Examiner suggested that the Patent Owner provide evidence relating to the use of device codes in vehicles at the time of the invention in relation to their inherent use in Suman and Spaur.* The scope of the claims was also discussed. Patent Owner's representative provided the attached agenda and various documents pertaining to related court proceedings.
> (Emphasis added.)

while the PO Summary of July 6, 2016 set forth, e.g.:

> While discussing Suman et al., the Patent Owner contended that Suman et al. failed to disclose: "said multivehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles", as recited in independent Claim 1, for example.
>
> *In reply, the Examiners cited Col. 2, lines 3-11 of Suman et al. as teaching the "multi-vehicle compatible controller" of the claimed invention. The Patent Owner contended that this was a mischaracterization of the teachings of Suman et al. The Examiner's invited the Patent Owner to submit evidence supporting this contention.*
>
> The Patent Owner also contended that Suman et al. fails to disclose: "a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller", as recited by independent Claim 1, for example.
>
> The Examiners noted that Col. 24, lines 8-13 of the present application recite: "[t]he enabling data may be the vehicle device code or codes, an instruction to select a code or codes from among those already stored, or the data or sequence to allow the controller 111 to generate the vehicle device code or codes, for

> example". The Examiners also correctly noted that Suman et al. fails to disclose the downloading interface for permitting downloading of vehicle device codes. While discussing Spaur et al., the Patent Owner contended that Spaur et al. failed to disclose: "said multivehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles", as recited in independent Claim 1, for example.
>
> *In reply, the Examiners contended similarly that since Spaur et al. discusses potential application in different vehicles, therefore Spaur et al. discloses the multi-vehicle compatible controller of the claims. The Patent Owner contended that this was a mischaracterization of the teachings of Spaur et al. The Examiner's invited the Patent Owner to submit evidence supporting this contention.* The Examiners also correctly noted that Spaur et al. fails to disclose the downloading interface for permitting downloading of vehicle device codes.
>
> Additionally, while discussing Spaur et al., the Patent Owner noted that Spaur et al. discloses a vehicle position determining device. Accordingly, for purposes of clarity, the Patent Owner agreed to also discuss the Spaur et al. patent with regards to its failure to anticipate the claimed invention.
>
> The Examiners determined that the rejection over Beckert et al. was withdrawn. (Emphasis added.)

The Agenda attached to the Summary indicated that PO intended to argue that the references or combination of references used to reject the claims did not teach the features of a multi-vehicle compatible controller nor a downloading interface.

A response to the non-final Office Action was also filed on July 6, 2016. The response included remarks and a Rule 132 declaration by Michael J. Suman and a Rule 132 declaration by Joseph C. McAlexander, III.

On December 1, 2016, a Notice of Intent to Issue Ex Parte Reexamination Certificate (NIRC) was issued by the USPTO. The Statement of Reasons for Patentability and/or Confirmation set forth:

> The following is an examiner's statement of reasons for patentability and/or confirmation of the claims found patentable in this reexamination proceeding: the Examiner agrees that the declarations by Suman and McAlexander provide sufficient evidence that Suman and Spaur each fail to disclose the multi-vehicle compatible controller as recited in independent claims 1,13 and 18. Claims 2-12, 14-17 and 19-22 are considered to be patentable due to their dependency on claims 1, 13 and 18, respectively.

The Suman declaration provided:

> 12. ...The embodiments contemplated by me at the time of my '537 patent, the disclosure in my '537 patent, and the related commercial developments within my work responsibilities were not directed to a multi-vehicle compatible controller ... as in the '278 patent claims. The embodiments contemplated by me at the time of my '537 patent did not include multi-vehicle compatibility, and at the time I left Johnson Controls in 2002 I had never contemplated or worked with any multi-vehicle compatible controller as described in the '278 patent. I point out that at the time of my '537 patent, the vehicle device codes were proprietary to different manufacturers, and even different model lines offered by manufacturers. Moreover, the device codes were not made freely available, and were quite difficult to obtain.
>
> 13. ...Based upon my knowledge and experience, the reprogramming means [of 537] is not related to vehicle codes or to providing a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller, as in the '278 patent claims. Instead, the reprogramming means is for vehicle personalization and was not capable of making communications level changes that would be necessary to provide multi-vehicle compatibility.
>
> 14. I would also like to clarify that the following passage from my '537 patent does not support the contention that my patent discloses a multi-vehicle compatible controller and downloading interface as in the '278 patent claims: ...(Col. 2, lines 3-10).
> It was expected that the vehicles in a given fleet would be the same type vehicle having the same device codes.

15. … It is my position, based upon my knowledge and experience, that none of the cited portions of my '537 patent supply these teachings relating to a wired or wireless interface. Indeed, I was simply not working on the problem of multi-vehicle compatibility, and there was no project to develop any software to give the connector the functions as contended in the Official Action. Moreover, the embodiments conceived and described in the '537 patent were not capable of modifying the communications level to allow for multi-vehicle compatibility. Along these lines, there is also no disclosure in my 537 patent of using the telephone to provide a wireless interface as in the '278 patent.

The McAlexander declaration provided:

10. I have also reviewed the Rule 132 Declaration being submitted concurrently herewith by Michael J. Suman, the lead inventor on U.S. Patent No. 6,028,537, i.e., another reference being cited in the Official Action. In that Declaration, Mr. Suman confirms my understanding that at the time of the Spaur et al. patent (filed about six months before the filing of the provisional application leading to the Suman et al. patent), the vehicle device codes were proprietary to different manufacturers, and even different model lines offered by manufacturers; and that the device codes were not made freely available, and were quite difficult to obtain.

…

19. The Official Action incorporates by reference a listing of how Spaur et al. (and Johnson et al.) relates to the claims of the '278 patent from Requester's Exhibit F. From Exhibit F, the following sections of Spaur et al. are asserted as disclosing a multi-vehicle controller using at least one corresponding device code from among a plurality thereof for different vehicles:

… (Col. 6, lines 31-50) .

… (Col. 10, lines 15-29).

… (Col. 10, lines 55-64. [sic]

Based upon my knowledge, experience and analysis, I do not believe that these cited portions of Spaur et al. disclose the multi-vehicle compatible controller as in the claims of the '278 patent. In addition, I also believe that, based upon these portions of Spaur et al., or any other portions of Spaur et al., there is no inherent teaching of the multi-vehicle compatible controller as in the '278 patent

claims. In other words, it does not necessarily flow that Spaur et al. would have a multivehicle compatible controller using the device codes as in the '278 patent claims.

20. I also point out that Exhibits 14 and 15 from Requester's technical trial expert, Mr. Andrews, and describing the actual CellPort Labs products as disclosed in Spaur et al., also fail to have any express or inherent teaching of the multivehicle compatible controller as in the '278 patent claims....

21. The Official Action also cites to the following language from col. 4, lines 38-45 of Spaur et al. for the alleged teaching of the downloading interface as recited in the '278 patent claims...

Again, based upon my knowledge, experience and analysis, I do not believe that these cited portions of Spaur et al., or any other portions of Spaur et al., disclose (either directly or through inherency) a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller as found in the claims of the '278 patent. Spaur et al. does disclose an interface in combination with a controller; however, Spaur et al. fails to disclose the multivehicle compatible controller and the downloading interface as recited in the claims of the '278 patent. In addition, there is nothing in the description of the corresponding CellPort Labs actual products (Exhibits 14 and 15) that discloses the multivehicle compatible controller and the downloading interface as recited in the claims of the '278 patent.

'851 Reexam:

On October 28, 2016, a second request for *ex parte* reexamination of claims 1-22 of U.S. Patent No. 8,0320,278 was filed by a TPR.

See the Request at, e.g., Sections V (pages 3-7) and VI, A-D. (pages 7-25) and Exhibit C and D, e.g., bridging pages 2-25. Such sections of the '851 Reexam Request set forth:

"**V. CITATION OF PERTINENT AND APPLICABLE PRIOR ART BELIEVED TO HAVE BEARING ON PATENTABILITY**"

...

Requester notes that these references were not previously considered during the original prosecution of the Flick '278 patent, but that *the Beckert '363 patent, the Spaur '074 patent and the Suman '537 patent are being considered in the pending Flick '587 Reexam. However, these references are being presented in a new light in this Request.* In particular, the Examiner in the Flick '587 Reexam had requested "evidence relating to the use of device codes" as related to their inherent use in the Spaur '074 patent and the Suman '537 patent. ... Accordingly, Requester is *submitting this material prior art evidence in the form of the SAE HS- 3000 Manual published in 1994*.

The SAE HS-3000 Manual is one of numerous publications published by the Society of Automotive Engineers ("SAE") that *set forth the standards for communicating with vehicle devices via a vehicle data bus using various device codes*, as was used in the Spaur '074 patent, the Suman '537 patent, and the Beckert '363 patent in order to communicate with the vehicle devices. *Requester also notes that these communications standards have been federally mandated for all new vehicles sold in the United States since 1996.*

As detailed in the accompanying claim charts, *the SAE HS-3000 Manual provides details regarding hundreds of device codes*, or "PRN"" device codes, for communicating with vehicle devices, including standard codes and up to seven manufacturer specified vehicle device codes. *For example, SAE J2178/2, which starts on page 211 of the SAE HS-3000 Manual, provides the "Standardized Parameter Definitions" for standardized messages on SAE J1850 Class B networks. SAE J2178/2 sets out respective sets of device codes for a host of vehicle devices that may be present on a given vehicle.* For example, Table 2 on page 215, partially reproduced below, provides the address map of the SAE standard and reserved manufacturer specific (Reserved MFG) subgroups of messages for different classes of vehicle devices.

...

SAE J2178/2 provides *the details of device codes for hundreds of different vehicle devices* within the address map ranges indicated in the above table. Section 4 of SAE J2178/2 on page 213 specifies that three bits are used to define eight different device codes for a given vehicle device including a SAE standard device code for the specific type of vehicle device and seven manufacturer reserved device codes for that particular vehicle device.

Furthermore, the SAE HS-3000 Manual teaches a bus discovery procedure that can be used by systems interfacing with a vehicle bus, which involves communicating with vehicle devices using at least one vehicle device code from among a plurality thereof for different vehicles. In particular, the bus discovery

procedure sends a plurality of device codes, referred to as "mode 1 PID 0 response message" in a manner appropriate for each of the SAE J1850 41.6 Kbps PWM bus, SAE J1850 10.4 Kbps VPW, and ISO 9141-2 in order to determine a type of bus used in a vehicle. (See SAE HS-3000 Manual section 6.5.1 on page 37).

Accordingly, the Beckert '363 patent, Spaur '074 patent, and the Suman '537 patent are each being presented in a new light in view of the SAE HS-3000 Manual and continue to raise substantial new questions of patentability with respect to the Flick '278 patent. Requester also notes that *the Chou '499 patent* was not previously considered in either the original prosecution of the Flick '278 patent or the currently pending Fick '587 Reexam and that this prior art reference *presents a substantial new question of patentability* with respect to the Flick '278 patent.

VI. STATEMENTS POINTING OUT EACH SUBSTANTIAL NEW QUESTION OF PATENTABI LITY

...as explained in greater detail below, *A) the Beckert '363 patent; B) the Spaur '074 patent; C) the Suman '537 patent; and D) the Chou '499 patent either alone or in combination with the SAE HS-3000 Manual,* all of which were published more than a year prior to the earliest priority date to which the Flick '278 patent is entitled to, *raise substantial new questions of patentability with respect to the Flick '278 patent.*

A. U.S. Patent No. 6,009,363 to Beckert (inherently disclosing the SAE HS-3000 Manual)

...These references were not considered during the original prosecution of the Flick '278 patent. However, the Beckert '363 patent was considered during the Flick '587 Reexam, but was inexplicably withdrawn from the Flick '587 Reexam with no reasons being made on the record as to why this rejection was being withdrawn. Accordingly, Requester is again resubmitting this reference for at least the following reasons:

1. No Reasons Provided Why Beckert '363 Patent Withdrawn From Rejection in the Flick '587 Reexam --- Examiner Interview Summary filed 6-21- 2016 in the Flick '587 Reexam

...

Accordingly, Requester is re-submitting the Beckert '363 patent, *including the SAE HS- 3000 Manual which is inherently disclosed by the OBD II interface*

being used in the Beckert '363 patent (see e.g., Beckert '363 col. 1, lines 32 - 35 stating: "Most late model vehicles are also constructed with a diagnostic system that analyzes performance of the vehicle's engine, transmission and fuel system, and other components (1996 or later for OBD II, 1993 or later for OBD I)..."…. These references provide new technological teachings that raise a substantial new question of patentability with respect to the Flick '278 patent.

2. Technological Teaching: Transmitting Location Data, Communicating Via an OBD II Vehicle Data Bus, and Downloading Means Downloading Enabling Data

The Beckert '363 patent teaches a vehicle computer system including a wireless communications device, a vehicle location determination device, a downloading interface, and a controller capable of communicating with a variety of vehicle devices via the OBD II standardized vehicle data bus mandated for inclusion in 1996 or later model vehicles. …

The Beckert '363 patent also incorporated by reference the disclosure of U.S. Patent 5,794,164 to Beckert et al. (the Beckert '164 patent) in its entirety at col. 7, lines 44-51. The Beckert '164 patent provides additional detail concerning the modules of the vehicle computer system disclosed in the Beckert '363 patent and specific detail concerning the OBD interpreter and APIs that are exposed to remote devices by the vehicle computer system, including a diagnostic API (amongst others). *The SAE standards, and in particular the SAE HS-3000 Manual, were published for the specific purpose of teaching people of ordinary skill in the art how to communicate with vehicle devices via the OBD II interface.* In particular, the SAE HS- 3000 Manual teaches a bus discovery procedure that can be used by systems interfacing with a vehicle bus via an OBD II diagnostic connector, which involves communicating with vehicle devices using at least one vehicle device code from among a plurality thereof for different vehicles. …

Accordingly, the Beckert '363 patent teaches that the modules inherently disclose the use of the bus discovery protocols that involve sending *a plurality of device codes for different vehicles required by the SAE standards as that specify the implementation details for the OBD II interface*. Furthermore, it would have been obvious to utilize the teachings described in the SAE HS-3000 Manual because the Beckert '363 patent expressly directs communicating with the OBD system built into the vehicle using the OBD interface. Thus, the Beckert '363 patent is being presented in a new light in view of the SAE HS-3000 Manual that raises a substantial new question of patentability.

…

4. Substantial New Question of Patentability as to Claims 1 - 22 because the Beckert '363 Patent in view of the SAE HS-3000 Manual Teaches all Claim Elements

Each of claims 1 - 22 require a multi-vehicle compatible controller coupled to a vehicle data bus for communication thereover with at least one vehicle device. As shown above, and in more detail in the claim charts attached as Exhibit B, *the Beckert '363 patent in view of the SAE HS-3000 Manual disclose this and all other required limitations*, explicitly disclosing communicating via a "vehicle data bus" and a "downloading interface". Accordingly, all aspects of claims 1-22 are disclosed by the Beckert '363 patent and the SAE HS-3000 Manual. A reasonable examiner would consider the teachings important in deciding whether or not claims 1-22 of the Flick '278 patent are patentable. For these reasons, the Beckert '363 patent, including the SAE HS-3000 Manual, raises a substantial new question of patentability as to claims 1-22.
(Underlined italics added.)

B. *U.S. Patent No. 5, 732,074 to Spaur in view of the SAE HS-3000 Manual*

...Furthermore, as noted above..., the Examiner in the Flick '587 Reexam had requested evidence related to the use of device codes as related to the Spaur '074 patent, ... Accordingly, Requester is submitting the SAE HS-3000 Manual which provides material evidence related to the use of device codes as related to the Spaur '074 patent. Accordingly, the Spaur '074 patent is being presented in a new light in view of the SAE HS-3000 Manual and continues to raise a substantial new question of patentability.

1. Technological Teaching: Obtaining and Transmitting Location Data using a Standard Vehicle Bus and Vehicle Device Codes for Different Vehicles

The Spaur '074 patent teaches a controller having a wireless device, a direct communications port, and a connection to a vehicle standardized network that can be utilized to read data from vehicle devices and transmit that data via the wireless device....

...

The Spaur '074 patent teaches communicating with vehicle devices via a "standardized network ... commonly used in a number of makes and models of vehicles" (Spaur '074 patent, col. 10, lines 18-21). *The SAE standards, and in*

particular the SAE HS-3000 Manual, were published for the specific purpose of teaching people of ordinary skill in the art how to communicate with vehicle devices via one of the "standardized networks" present within a vehicle.

In particular, *the SAE HS-3000 manual provides details of communicating with a plurality of vehicle devices* using the SAE messaging protocols defined in SAE J2178 (Class B Data Communication Network Messages), ...

...

Accordingly, it would have been obvious to utilize *the teachings described in the SAE HS-3000 Manual because the Spaur '074 patent expressly directs using standards, such as the SAE standards as described by the SAE HS-3000 Manual, for the purpose for which the standards were created*. Thus, the Spaur '074 patent in view of the SAE HS-3000 Manual disclose technological teachings that the Examiner previously found to be missing from the prior art of record disclosed in the Flick '278 patent.

...

3. Substantial New Question of Patentability as to Claims 1 - 22 Because Spaur '074 in view of the SAE HS-3000 Manual Teaches all Claim Elements

Each of claims 1 - 22 require a multi-vehicle compatible controller coupled to a vehicle data bus for communication thereover with at least one vehicle device. As shown above, and in more detail in the claim charts attached as Exhibit D, *the Spaur '074 patent in view of the SAE HS-3000 Manual discloses this and all other required limitations*, explicitly disclosing communicating via a "vehicle data bus", "using at least one corresponding device code from among a plurality thereof for different vehicles", and "downloading interface". In particular, the limitation "using at least one corresponding vehicle device code from among a plurality thereof for different vehicles" *is discussed in greater detail in the SAE HS-3000 Manual, which provides the implementation details for communicating via the standardized vehicle network* described in the Spaur '074 patent.

Accordingly, it would have been obvious to one skilled in the art that all aspect of claims 1 - 22 are disclosed by the Spaur '074 patent in view of the SAE HS-3000 Manual. A reasonable examiner would consider the teachings important in deciding whether or not claims 1 - 22 of the Flick '278 patent are patentable. For these reasons, the Spaur '074 patent in view of the SAE HS-3000 Manual raises a substantial new question of patentability as to claims 1 - 22.
(Underlined italics added.)

C. U.S. Patent No. 6,028,537 to Suman (inherently disclosing the SAE HS-3000 Manual)

The Suman '537 patent issued February 22, 2000 and the SAE HS-3000 Manual published in 1994 and therefore are prior art to the Flick '278 patent under 35 U.S.C. §§102(a), 102(b) and 102(e). These references were not considered during the original prosecution of the Flick '278 patent, but the Suman '537 patent is currently being considered in the Flick '587 Reexam. Furthermore, as noted above …, the Examiner in the Flick '587 Reexam had requested evidence related to the use of device codes as related to the Suman '537 patent, … Accordingly, Requester is submitting material prior art, in particular, the SAE HS-3000 Manual which provides material evidence related to the use of device codes as related to the Suman '537 patent. Accordingly, the Suman '537 patent is being presented in a new light in view of the SAE HS-3000 Manual and continues to raise a substantial new question of patentability.

1. Technological Teaching: Obtaining and Transmitting Location Data using a Standard Vehicle Bus and Multi-Vehicle Compatibility

The Suman '537 patent teaches a vehicle communication and control system including a wireless communications device, a vehicle location determination device, and a controller capable of communicating with a variety of vehicle devices via a standardized vehicle data bus….

…

The Suman '537 patent notes that the multiplexing scheme (e.g., item 744 illustrated in Fig. 44 above) is set forth in *SAE standard J1850* and *"is universally used in the automotive industry." The SAE HS-3000 Manual* is a publication that *provides details regarding the SAE J1850 standard*, and provides implementation *details for communicating with vehicle devices on a plurality of different makes and models of vehicles via an SAE J1850 bus*.

Accordingly, a vehicle controller (as illustrated in Fig. 44 above) implemented *according to the SAE J1850 standard* would communicate with a plurality of vehicle devices using the SAE messaging protocols defined in *SAE J2178 (Class B Data Communication Network Messages) as required by the SAE J1850 standard, which provides details of the various device codes* that may be utilized to communicate with hundreds of vehicle devices, …

…

...As noted above, *vehicle data busses, such as those described by the SAE HS-3000 Manual have been federally mandated for inclusion in all vehicles sold in the United States since at least 1996.*

Thus, the Suman '537 patent is being presented in a new light in view of the SAE HS- 3000 Manual that raises a substantial new question of patentability with respect to the Flick '278 patent.

...

3. Substantial New Question of Patentability as to Claims 1 - 22 because the Suman '537 patent, including the SAE HS-3000 Manual, Teaches all Claim Elements

Each of claims 1 - 22 require a multi-vehicle compatible controller coupled to a vehicle data bus for communication thereover with at least one vehicle device. As shown above, and in more detail in the claim charts attached as Exhibit D [sic], *the Suman '537 patent, which inherently discloses communicating with vehicle devices in accordance with the manner disclosed in the SAE HS-3000 Manual, discloses this and all other required limitations*, explicitly disclosing communicating via a 'vehicle data bus', 'using at least one corresponding device code from among a plurality thereof for different vehicles', and 'downloading interface'. *In particular, the manner in which the Suman '537 patent's disclosure requires "using at least one corresponding vehicle device code from among a plurality thereof for different vehicles" can be appreciated by reviewing the details of the disclosed processes as set out in the SAE HS-3000 Manual*, which provides the implementation requirements for the multiplexing communication circuit 744 described in the Suman '537 patent. *Accordingly, it is submitted that all aspects of claims 1 - 22 are disclosed by the Suman '537 patent, which inherently discloses use of the processes required by the standards contained in the SAE HS-3000 Manual,* in at least as complete detail as contained in the claims. A reasonable examiner would consider the teachings important in deciding whether or not claims 1 - 22 of the Flick '278 patent are patentable. For these reasons, the Suman '537 patent in view of the SAE HS-3000 Manual raises a substantial new question of patentability as to claims 1 - 22.
(Underlined italics added.)

D. U.S. Patent No. 6,330,499 to Chou et al.

The Chou '499 patent issued December 11, 2001 and therefore is prior art to the Flick '278 patent under 35 U.S.C. §§ 102(a), 102(b), and 102(e). This reference

was not considered during the prosecution of the Flick '278 patent or the currently pending Flick '587 Reexam. This reference provides a new technological teaching that raises a substantial new question of patentability.

1. Technological Teaching: Obtaining and Transmitting Location Data using a Standard Vehicle Bus and using model dependent codes

The Chou '499 patent teaches a vehicle information system including a wireless communication device, a vehicle location determining device, and a controller capable of communicating with a variety of vehicle devices *via a standardized vehicle data bus using a vehicle bus interface that may support different vehicle bus standards such as CAN (Controller Area Network) and the Society of Automotive Engineers' SAE J1850 - Class B Data Communications Network Interface.* (Chou, col. 3, lines 33-40)....

...

The Chou '499 patent further teaches multi-vehicle compatibility, whereby a vehicle bus adaptor (120C) "translates messages from the fault detector into the language of the vehicle bus. The fault code specifications and protocols of the vehicle may be ***Original Equipment Manufacturer (OEM) and model dependent*** .... A listing of such codes may be found in the publication of the *Society of Automotive Engineers, "SAE On-Board Diagnostics for Light and Medium Duty Vehicle Standards Manual"*. (Chou, col. 4, lines 25-35, [bold original] emphasis added).

Thus, the Chou '499 patent *discloses technological teaching that the Examiner previously found to be missing from the prior art of record disclosed in the Flick '278 patent.*

...

3. Substantial New Question of Patentability as to Claims 1 - 22 because the Chou '499 Patent Teaches all Claim Elements

Each of claims 1 - 22 require a multi-vehicle compatible controller coupled to a vehicle data bus for communication thereover with at least one vehicle device. As shown above, and in more detail in the claim charts attached as Exhibit E, *the Chou '499 patent discloses this and all other required limitations,* explicitly disclosing communicating via a "vehicle data bus", translating "messages from the fault detector into the language of the vehicle bus" where the fault code specifications may be "Original Equipment Manufacturer (OEM) and model

> dependent" and a downloading interface for permitting downloading of enabling data.
>
> Accordingly, it is submitted that all aspect of claims 1 - 22 are disclosed by the Chou '499 patent. A reasonable examiner would consider the teachings important in deciding whether or not claims 1 - 22 of the Flick '278 patent are patentable. For these reasons, the Chou '499 patent raises a substantial new question of patentability as to claims 1 - 22.
> (Underlined italics added.)

On December 15, 2015, an Order Granting the Request for *ex parte* reexamination was mailed by the USPTO. The Order set forth:

Suman '537:

Requester asserts **Suman '537** alone or in combination with SAE HS-3000, raises a substantial new question of patentability as to claims 1-22 of the '278 patent. See, e.g., page 7 of the Request.

The prosecution history indicates that SAE HS-3000 was not of record during the prosecution of any application to which the benefit of priority is claimed. Accordingly, such references is not precluded from raising a substantial new question of patentability.

Suman '537 however was not only cited but applied by the examiner during the prosecution of at least '587 reexam.

Accordingly, at least the **Suman '537** reference/evidence is "old art". However, as set forth *supra*, e.g., MPEP 2242 states:

> *"for example, a substantial new question of patentability may be based solely on old art where the old art is being presented viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request."*

In this instance, Requester, see, e.g., Sections V (pages 3-7) and VI, C. (pages 18-23) of the '851 Request, asserts the combination of **'537** (previously before/considered by the Examiner during the examination/prosecution of the '587 reexam) with SAE HS-3000, see *supra*, a combination which was not considered during prosecution since the reference to, e.g., SAE HS-3000 was not even cited during prosecution. Accordingly, such combination is not precluded from raising a substantial new question of patentability.

During prosecution of the '272 application that led to the issuance of the '278 patent and the confirmation of patentability in the 90/013,587 reexam, the independent claims were allowed for reasons set forth by Examiner, see summary of prosecution history *supra*.

...

Therefore, Suman '537 (e.g. "The multiplexing scheme is set forth in SAE standard J1850 and is universally used in the automotive industry) is being presented viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request (e.g. the details/vehicle device codes/implementations constituting the SAE standard J1850 provided in the form of SAE HS-3000 Manual) raising a substantial new question of patentability with respect to "the multi-vehicle compatible controller as recited in independent claims 1,13 and 18 , i.e. "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles".

Given the teachings of the combination of Suman '537 and SAE HS-3000, a reasonable examiner would consider these teachings important in evaluating the patentability of the independent claims of the '278 patent. This art was not applied/so combined during a previous examination of US Patent No. 8,032,278, and the claims at issue are not the subject of a final holding by a Federal Court. Accordingly, prior art patents and printed publications asserted by the Request raise a substantial question of patentability with respect to at least one claim, e.g. claim 1, of the '278 patent.

Spaur '074:

Requester asserts **Spaur '074** alone or in combination with SAE HS-3000, raises a substantial new question of patentability as to claims 1-22 of the '278 patent. See, e.g., page 7 of the Request.

The prosecution history indicates that SAE HS-3000 was not of record during the prosecution of any application to which the benefit of priority is claimed. Accordingly, such references is not precluded from raising a substantial new question of patentability.

Spaur '074 however was not only cited but applied by the examiner during the prosecution of at least '587 reexam.

Accordingly, at least the **Spaur '074** reference/evidence is "old art". However, as set forth *supra*, e.g., MPEP 2242 states:

> *"for example, a substantial new question of patentability may be based solely on old art where the old art is being presented viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request."*

In this instance, Requester, see, e.g., Sections V (pages 3-7) and VI, B. (pages 14-18) of the '851 Request, asserts the combination of **'074** (previously before/considered by the Examiner

during the examination/prosecution of the '587 reexam) with SAE HS-3000, see *supra*, a combination which was not considered during prosecution since the reference to, e.g., SAE HS-3000 was not even cited during prosecution. Accordingly, such combination is not precluded from raising a substantial new question of patentability.

During prosecution of the '272 application that led to the issuance of the '278 patent and the confirmation of patentability in the 90/013,587 reexam, the independent claims were allowed for reasons set forth by Examiner, see Summary of Prosecution History *supra*.

...

Therefore, Spaur '074 (e.g. "The vehicle standardized network...includes a controller unit...that provides appropriate message and data handling functions associated with sending and receiving information including data from each of a plurality of physical vehicle devices...that are operatively connected to a bus...of the vehicle standardized network...the vehicle standardized network is an established and previously developed network that interfaces with components in a vehicle...in order to provide desired or requested data concerning operations or status of these components", "...this further standardized network is a network that has been previously devised and is commonly used in a number of makes and models of vehicles") is being presented viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request (e.g. the details/vehicle device codes/implementations constituting a previously established and developed vehicle standardized network that provides appropriate message and data handling functions associated with sending and receiving information including data from each of a plurality of physical vehicle devices that are operatively connected to a bus and used in

a number of makes and models of vehicles, e.g. the SAE standards, e.g. J1850, provided in the form of SAE HS-3000 Manual) raising a substantial new question of patentability with respect to "the multi-vehicle compatible controller as recited in independent claims 1,13 and 18 , i.e. "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles".

Given the teachings of the combination of Spaur '074 and SAE HS-3000, a reasonable examiner would consider these teachings important in evaluating the patentability of the independent claims of the '278 patent. This art was not applied/so combined during a previous examination of US Patent No. 8,032,278, and the claims at issue are not the subject of a final holding by a Federal Court. Accordingly, prior art patents and printed publications asserted by the Request raise a substantial question of patentability with respect to at least one claim, e.g. claim 1, of the '278 patent.

Beckert '363:

Requester asserts **Beckert '363** alone or in combination with SAE HS-3000, raises a substantial new question of patentability as to claims 1-22 of the '278 patent. See, e.g., page 7 of the Request.

The prosecution history indicates that SAE HS-3000 was not of record during the prosecution of any application to which the benefit of priority is claimed. Accordingly, such references is not precluded from raising a substantial new question of patentability.

Beckert '363 however was not only cited but applied by the examiner during the prosecution of at least '587 reexam.

Accordingly, at least the **Beckart '363** reference/evidence is "old art". However, as set forth *supra*, e.g., MPEP 2242 states:

> *"for example, a substantial new question of patentability may be based solely on old art where the old art is being presented viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request."*

In this instance, Requester, see, e.g., Sections V (pages 3-7) and VI, A. (pages 7-14) of the Request, asserts the combination of **'363** (previously before/considered by the Examiner during the examination/prosecution of the '587 reexam) with SAE HS-3000, see *supra*, a combination which was not considered during prosecution since the reference to, e.g., SAE HS-3000 was not even cited during prosecution. Accordingly, such combination is not precluded from raising a substantial new question of patentability.

During prosecution of the '272 application that led to the issuance of the '278 patent and the confirmation of patentability in the 90/013,587 reexam, the independent claims were allowed for reasons set forth by Examiner, see Summary of Prosecution History *supra*. Note also the June 2016 and July 2016 Interview Summaries with regard to '363 in Summary of Prosecution History *supra*.

...

Therefore, Beckart '363 (e.g. "Most late model vehicles are also constructed with a diagnostic system that analyzes performance of the vehicle's engine, transmission and fuel system, and other components (1996 or later for OBD II, 1993 or later for OBD I). The diagnostic system can be coupled to an external computer to download or monitor diagnostic information that is useful to a vehicle mechanic during servicing of the vehicle.", "...the vehicle computer system...can be used to integrate multiple vehicle-related systems onto one open

platform hardware and software architecture. For instance, the vehicle computer system…can serve as, a navigation system, a communications system, a security system, and a diagnostics system. …FIG. 2 shows the computer 22 according to one implementation of the invention. Computer 22 has three primary modules: a faceplate module 60, a support module 62, and a computer module 64. The computer module 64 is operatively connected to the support module 62 via a multi-bit bus 66. In FIG. 2, the support module 62 is also connected to a universal serial bus (USB) hub 70 via a multi-bit connector 72 (e.g., 8 bits). The USB hub 70 provides connections to many peripheral devices (e.g., 128 devices). Example peripheral devices include the OBD (On Board Diagnostic) system 28, the security system 26, navigation system 74, a wireless link 76 to the Internet, a CD-ROM changer 78, a TV tuner 80, and user I/O devices such as a joystick, keyboard or a mouse 82. This USB hub could be separate as shown in FIG. 2 or it could be integrated into one or more of the USB peripherals.", "A more detailed explanation of the three modules in the vehicle computer system is provided in …U.S. Pat. No. 5,794,164 … incorporated herein by reference" and thereby, "The computer module 64 has a navigation system 112 which includes both a GPS (global positioning system) receiver and a map application, such as Automap.TM., a program produced by Microsoft Corporation. A security system 114 is provided in the computer module 64 to manage vehicle security. The security system 114 monitors the security sensors 26 (FIG. 1) for any potential threat of theft or vandalism. The security system 114 is connected to actuators which lock/unlock doors and windows, and to an alarm which can be activated upon detection of unwanted tampering. An OBD (On Board Diagnostic) interpreter 116 is provided in the computer module to communicate with the OBD system built into the vehicle by the manufacturer. The OBD interpreter 116 interprets the status data received and provides performance related information from the

vehicle's OBD system to the microprocessor 100. Also, commands can be provided to the interpreter which allows non-critical car systems to be controlled.") is being presented viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request (e.g. the details/vehicle device codes/implementations constituting On Board Diagnostics for Light and Medium Duty Vehicle standards , e.g. the SAE standard J1850, provided in the form of SAE HS-3000 Manual) raising a substantial new question of patentability with respect to "the multi-vehicle compatible controller as recited in independent claims 1,13 and 18 , i.e. "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles".

Given the teachings of the combination of Beckart '363 and SAE HS-3000, a reasonable examiner would consider these teachings important in evaluating the patentability of the independent claims of the '278 patent. This art was not applied/so combined during a previous examination of US Patent No. 8,032,278, and the claims at issue are not the subject of a final holding by a Federal Court. Accordingly, prior art patents and printed publications asserted by the Request raise a substantial question of patentability with respect to at least one claim, e.g. claim 1, of the '278 patent.

Chou'499:

Requester asserts that **Chou '499** either alone or in combination with SAE HS-3000, raises a substantial new question of patentability as to claims 1-22 of the '278 patent. See, e.g., page 7 of the Request.

The prosecution history indicates that SAE HS-3000 was not of record during the prosecution of any application to which the benefit of priority is claimed. Accordingly, such reference is not precluded from raising a substantial new question of patentability.

Chou '499 was not explicitly cited and discussed during the prosecution of the '278 patent or the '587 Reexam. However '499 was cited and discussed during the prosecution of the '972 application, see Summary of Prosecution History *supra*

Accordingly, at least the **Chou '499** reference/evidence is "old art". However, as set forth *supra*, e.g., MPEP 2242 states:

> *"for example, a substantial new question of patentability may be based solely on old art where the old art is being presented viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request."*

In this instance, Requester, see, e.g., Sections V (pages 3-7) and VI, D. (pages 23-25) of the Request, asserts **'499** (previously before/considered by the Examiner during examination/prosecution of the '972 application) alone or in combination of '363 with SAE HS-3000, see *supra*, a combination which was not considered during prosecution since the reference to, e.g., SAE HS-3000 was not even cited during prosecution. Accordingly, such combination is not precluded from raising a substantial new question of patentability.

During prosecution of the '272 application that led to the issuance of the '278 patent and the confirmation of patentability in the 90/013,587 reexam, the independent claims were allowed for reasons set forth by Examiner, see Summary of Prosecution History *supra*.

...

Therefore, Chou '499 (e.g. "The processor 300 is coupled to a vehicle bus 335 through a vehicle bus interface 330.... The vehicle bus interface may support one of vehicle bus standards

such as CAN (Controller Area Network) and the Society of Automotive Engineers' SAE J1850 - Class B Data Communication Network Interface. Alternatively, the processor supports some or all of the functions of the vehicle bus interface and connects directly to the vehicle bus 335. The vehicle bus shown in FIG. 2 is an inherent part of all new automobiles. The dotted line is used as an indication that the vehicle bus is built into the vehicle." or "The vehicle bus interface 120 includes the following modules: vehicle bus adapter 120C, fault detector 120B, and diagnostic data service 120A. The fault detector 120B polls the vehicle bus 104 through the vehicle bus adapter 120C checking for fault codes reported by the vehicle ECUs 103. The vehicle bus adapter 120C translates the messages received from the vehicle bus into the language of the fault detector. It also translates messages from the fault detector into the language of the vehicle bus. The fault code specifications and protocols of the vehicle may be Original Equipment Manufacturer (OEM) and model dependent. The term 'vehicle fault codes' is meant to be synonymous with the term 'trouble code' or 'diagnostic trouble code'. A listing of such codes may be found in the publication of the Society of Automotive Engineers, 'SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual'. The diagnostic data service 120A accepts request for vehicle parametric data and retrieves the data using the vehicle bus adapter.", "The remote service center 200 of FIG. 3 comprises a diagnostic server 201 that has access to data related to the vehicle such as as-built, history, diagnostics, warranty, service information and failure mode data. The diagnosis server 201 is linked to the data repository 203 via a TCP/IP link, LAN, or the like", "...remote health monitoring and diagnostics shares many features with other automotive applications and services. It may be desirable to bundle the remote health monitoring and diagnostics with other services or to extend it with related application functions. For example, the remote diagnostics service could certainly be offered on

top of an Emergency/Mayday service (e.g., 'OnStar'). Other applications and services that can be developed or bundled as extensions of the diagnostics services include: breakdown service, network diary, vehicle user manual update, OEM Callback Services, fleet management, theft prevention, vehicle parameter update/change, remote vehicle access, concierge services, etc.") is being presented viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request (e.g. the details/vehicle device codes/implementations constituting On Board Diagnostics for Light and Medium Duty Vehicle standards, e.g. the SAE standard J1850-Class B Data Communications Network Interface beginning on page 146, provided in the form of SAE HS-3000 Manual or being presented other than for its teachings of "...a user interface for accepting at least one command from a user and sending at least one alert to the user (column 3, lines 5-15)") raising a substantial new question of patentability with respect to "the multi-vehicle compatible controller as recited in independent claims 1,13 and 18 , i.e. "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles".

Given the teachings of the combination of Chou '499 and SAE HS-3000, a reasonable examiner would consider these teachings important in evaluating the patentability of the independent claims of the '278 patent. This art was not applied/so combined during a previous examination of US Patent No. 8,032,278, and the claims at issue are not the subject of a final holding by a Federal Court. Accordingly, prior art patents and printed publications asserted by the Request raise a substantial question of patentability with respect to at least one claim, e.g. claim 1, of the '278 patent.

A non-final action was mailed by the USPTO on March 29, 2017. Such action determined the earliest effective filing date for Flick '278 to be July 3, 2007. The action also determined claim interpretation of "vehicle device" as defined in 6011460 which is incorporated by reference into Flick '278. The action also determined the elements "vehicle position determining device," "wireless communication device," "multi-vehicle compatible controller," and "downloading device" invoke 112(6th paragraph). The action also included rejection of claims 1, 4-8, 11-12 and 18-22 under pre-AIA 35 U.S.C. 102(b) or, in the alternative under pre-AIA 35 U.S.C. 103(a) as being obvious over Chou for describing a vehicle computer system including a wireless communications device, a vehicle location determination device, a downloading interface, and a controller capable of communicating with a variety of vehicle devices. The action also included rejection of claims 9-10 and 22 under pre-AIA 35 U.S.C. 103(a) as being obvious over Cho in view of Suman for the teaching of remote vehicle control to vehicle accessories as described by Suman. The action also included rejection of claims 2-3 and 13-16 under pre-AIA 35 U.S.C. 103(a) as being obvious over Chou in view of Spaur for the teaching of *wired* signal downloading interface as described by.Spaur The action also included rejection of claim 17 under pre-AIA 35 U.S.C. 103(a) as being obvious over Chou in view of Suman or Spaur for the teaching of *wired* signal downloading interface as described by Suman or Spaur.

> On June 01, 2017 a personal interview was held. The PTOL-404 Summary set forth:
>
> Description of the general nature of what was agreed to if an agreement was reached, or any other comments: The items set forth in the Agenda-copy attached-were discussed. No agreement as to the claims was reached. PO discussed the possibility of filing expert evidence in the form of a 132 declaration.

while the PO Summary of July 6, 2016 set forth, e.g.:

> The Patent Owner discussed Chou et al. with respect to: "a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller", as recited by independent Claim 1, for example.
>
> The Patent Owner discussed Chou et al. with respect to: "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles", as recited in independent Claim 1, for example.
>
> The Examiners determined that the rejection over Beckert et al. was withdrawn. (Emphasis added.)

The Agenda attached to the Summary indicated that PO intended to discuss the result of litigation, '278 Patent history including recent reexam, a summary of '278 including discussing claim 1 and that the Chou reference used to reject the claims did not describe the features of a multi-vehicle compatible controller nor a downloading interface.

A response to the non-final Office Action was filed on June 12, 2017. The response included remarks and evidence in four Exhibits from litigation in 6:13cv1950-Orl-40DAB and a Rule 132 declaration by Joseph C. McAlexander, III dated June 12, 2017.

A final action was mailed by the USPTO on July 19, 2017 that maintained the claim interpretation 112(6th paragraph) for elements "vehicle position determining device," "wireless communication device," "multi-vehicle compatible controller," and "downloading device" and maintained the art rejections regarding Chou and other references as applicable under 102 and 103.

An after final response to the final Office Action was filed on September 18, 2017. The response included remarks and evidence of secondary considerations in Exhibits 1-10 where the evidence included from litigation in 6:13cv1950-Orl-40DAB, a Rule 132 declaration by Michael Suman from 90/013857 dated July 5, 2016, a Rule 132 declaration by Michael Suman dated Sept 8, 2017 and a Rule 132 declaration by Joseph C. McAlexander, III from 90/013857 dated July 6, 2016.

An advisory was mailed by the USPTO on September 29, 2017. A supplemental advisory was mailed by the USPTO on October 10, 2017 indicating evidence (Exhibits 4-9) of secondary considerations was not entered lacking showing of good and sufficient reason why the evidence is necessary and was not earlier presented per 37 CFR 1.116e while the evidence (Exhibits 1-3) and remarks were considered but not determined to be persuasive.

> On October 25, 2017 a personal interview was held. The PTOL-404 Summary set forth:
>
> Description of the general nature of what was agreed to if an agreement was reached, or any other comments: Items II-IV of the Interview Outline, copy attached, were discussed. *With regard to Section III, PO indicated the intent to file a Supplemental After FINAL amendment with showings under 37 CFR 116(b) for previously not entered evidence.* Also with regard to Section IV, PO will provide further elaboration if such "confirmation" is again requested in such Supplemental. (Emphasis added.)

while the PO Summary of November 1, 2017 set forth, e.g.:

> The Patent Owner discussed the attached agenda with the Examiners. In particular, the Patent Owner discussed *whether a more formal showing under 37 C.F.R. §1.116(b) was required for prior filed evidence.* The Examiner's encouraged the Patent Owner to provide a further response. The Patent Owner also discussed interpretation of "and/or" statements within the final Office Action. (Emphasis added.)

A supplemental after final response to the final Office Action was filed on November 17, 2017. The response included remarks requesting reconsideration of prior arguments and secondary consideration evidence in Exhibits 4-9 from litigation in 6:13cv1950-Orl-40DAB that were denied entry.

An advisory was mailed by the USPTO on December 5, 2017 indicating evidence (Exhibits 4-10) of secondary considerations was not entered due to lacking showing of good and sufficient reason why the evidence is necessary and was not earlier presented per 37 CFR 1.116e while the evidence (Exhibits 1-3) and remarks were considered but not determined to be persuasive.

An Appeal Brief was filed on January 17, 2018 and a supplemental Appeal Brief was filed on February 27, 2018 in response to a notice of non-compliance was mailed by USPTO on January 30, 2018.

An Examiner's Answer was mailed by the USPTO on May 14, 2018.

A corrected Reply Brief was filed on August 16, 2018.

A Decision on Appeal by the Patent Trial and Appeal Board was mailed by the USPTO on November 13, 2018 that reversed all of the rejections based on Chou. The Decision set forth:

We begin by construing a key disputed limitation of claim 1 which recites, in pertinent part, a multi-vehicle compatible controller. The Specification does not define the term, but does describe a multi-vehicle compatible controller 111 in Figure 10 that includes, among other things, a central processing unit 126 and input/output (I/O) circuitry 127 that interfaces with a vehicle device 121 using at least one corresponding vehicle device code from plural codes for different vehicles. '278 patent, col. 23,11. 59—67. The corresponding vehicle code may be for reading from, or writing to, the vehicle device. Id. col. 23, 1. 67 - col. 24, 1. 3.

In related litigation involving the '278 patent, a U.S. District Court construed the term "multi-vehicle compatible controller" as "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle"—a construction that neither party disputed. *See Omega Patents, LLCv. CalAmp Corp.*, No. 6:13-cv-1950-Orl-40DAB, (M.D. Fla. Feb. 20, 2015) ("Dist. Ct. Claim Construction Order"), at 6,24, *cited in* App. Br. Rel. Proc. App. ("Item 8"). Although we apply a claim construction standard in *ex parte* reexamination proceedings different from that used by the court, we nonetheless find that the court's construction is consistent with the term's broadest reasonable interpretation in light of the Specification. *Accord Power Integrations, Inc. v. Lee*, 797 F.3d 1318, 1326—27 (Fed. Cir. 2015) (emphasizing the Board's obligation to (1) evaluate a district court's claim construction for terms at issue, and (2) determine whether that construction is consistent with the term's broadest reasonable interpretation).

Claim 1 further recites that the multi-vehicle compatible controller can communicate with at least one vehicle device using at least one corresponding vehicle device code from among plural device codes for different vehicles. The district court construed the term "device codes" as "signal from a vehicle device," Dist. Ct. Claim Construction Order at 17, 25—a construction that is likewise consistent with its broadest reasonable interpretation. Although the court did not construe the term "different vehicles," the '278 patent in column 22, lines 3 to 7 incorporates by reference a related patent, namely U.S. Patent No. 5,719,551 ("the '551 patent"), which explains that "the term different vehicles may include vehicles from different manufacturers, different models, or even different trim levels of the same make or model." '551 patent, col. 6, ll. 38-42. *Accord* Reply Br. 8 (acknowledging this explanation).

The term "trim level" in a vehicular context refers to a version of a vehicle model that comes equipped with a set combination of features. *See What is a Vehicle Trim Level*?, The Newswheel, http://thenewswheel.com/what-is-a-veliicle-trim-level (Oct. 27,2017) ("Newswheel"). In defining "trim level," this article explains that although trim packages previously were typically purely aesthetic and only added non-functional touches like chrome accents and upholstery stitching, many automakers today include sets of higher-technology features and/or performance upgrades in trim packages, resulting in offering as many as 6-10 different trim levels for a given vehicle model. *Id.*

Although the Examiner construes the recited term "different vehicles" to include vehicles that are the same make and model but with different trims consistent with the '551 patent, the Examiner nonetheless includes vehicles whose *electronics are not different* as "different vehicles." *See* Ans. 4.

We find this construction problematic on this record. To be sure, Newswheel indicates that differences among trim packages were formerly purely aesthetic and non-functional, thus suggesting that the electronics in these vehicles in these different trim packages would be the same despite the vehicles' aesthetic differences.

But as Appellant indicates (Reply Br. 6—9), vehicles with identical electronics would use the same vehicle codes and, therefore, their inclusion runs counter to the functionality of the recited *multi-vehicle compatible* controller that can communicate with a vehicle device using at least one corresponding vehicle device code *from among plural codes for different vehicles*. Indeed, this compatibility with different vehicles and their different codes is a fundamental aspect of the claimed invention that solves a longstanding problem in the art as Appellant indicates. *See* App. Br. 32 (noting that the lack of vehicle code compatibility among different vehicles for vehicle tracking units is the problem addressed by the '278 patent). To the extent that the Examiner construes the different vehicles in claim 1 to include those with the same vehicle codes, we find such a construction unreasonable when interpreted in light of the Specification.

In reaching this conclusion, we emphasize that the broadest reasonable interpretation in light of the Specification is not whether the Specification precludes some broad reading of the claim term adopted by the Examiner. *See In re Smith Int'l*, Inc., 871 F.3d 1375,1382—83 (Fed. Cir. 2017). Nor is the broadest reasonable interpretation simply one that is not inconsistent with the Specification. *Id.* at 1383. Rather, it is an interpretation that corresponds with what and how the inventor describes his invention in the Specification, that is, an interpretation consistent with the Specification. *Id.* (citing *In re Suitco Surface*, 603 F.3d 1255,1259-60 (Fed. Cir. 2010)).

Therefore, we find the Examiner's reliance on Chou for teaching the recited multi-vehicle compatible controller problematic on this record. In Chou, a vehicle's ECUs 103 (which the Examiner maps to the recited "vehicle device" (*see* Ans. 35)) report fault codes to fault detector 120B via vehicle bus 140 and vehicle bus adapter 120C, the latter translating messages received from the bus into the language of the fault detector and vice-versa. Chou, col. 4, ll. 20-28; Fig. 3. Although these fault codes' specifications and protocols depend on the manufacturer and vehicle model, and the codes are listed in an SAE publication, that does not mean that Chou's controller is *compatible with multiple vehicles*, where the controller can communicate with a vehicle device using at least one corresponding vehicle device code from among plural codes for different vehicles as claimed. Indeed, this very SAE publication acknowledges the lack of uniformity in

these codes between manufacturers and, in some cases, within the same manufacturer across different product lines. *See* App. Br. 26-27, 32 (quoting a passage from page 39 of the SAE HS-3000 manual). *Accord* Declaration by Joseph C. McAlexander, III Under 37 C.F.R. § 1.132, dated June 12, 2017 ("2017 McAlexander Decl.") Paragraph 13 (quoting this passage). *See also* Rule 132 Declaration by Michael J. Suman, dated July 5, 2016 ("Item 4) ("Suman Decl.") Paragraphs 11-12 (declaring that, at the time of his U.S. Patent 6,028,537 whose provisional application was filed June 14,1996, vehicle device codes were (1) proprietary to different manufacturers, (2) not made freely available, and (3) difficult to obtain). Accord Rule 132 Declaration By Joseph C. McAlexander, III, dated July 6, 2016 ("Item 5") ("2016 McAlexander Decl.") Paragraph 10 (corroborating this testimony).

At best, Chou's controller is compatible with *one* vehicle, namely the particular vehicle whose fault codes correspond to that particular vehicle for which the controller was designed. *Accord* App. Br. 32 (noting that Chou's ECUs use their own respective trouble codes that are different for different vehicles). Although Chou's remote service center can work with different vehicle device codes using a server 201 and repository 203 in Figure 1 as Appellant acknowledges (App. Br. 37), Chou does not teach or suggest providing such a capability in a vehicle.

Nor do we find that Chou teaches or suggests the recited downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller. In the related litigation, the District Court did not construe the term "downloading interface," but did construe the term "enabling data" as data relating to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller—a construction that matches the terms in the claim. See Dist. Ct. Claim Construction Order at 20-23,25.

According to the Specification, enabling data *may be, for example*, (1) the vehicle device code or codes; (2) an instruction to select a code or codes from among those already stored; or (3) the data or sequence to allow the controller 111 to generate the vehicle device code or codes. '278 patent, col. 24, ll. 9-13. Our emphasis on the permissive and exemplary language in this passage underscores that enabling data is not limited to these three alternatives.

But despite this non-limiting description, what is clear from Appellant's disclosure is that downloading enabling data via the recited interface enables the recited controller to use a *particular* vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code. See '278 patent, col. 24, l. 5 - col. 25, 1. 28; Figs. 10-13.

Turning to the rejection, the Examiner refers to, among other things, Chou's network interface 320 and external device in Figure 2, as well as network interface 107 and cell phone 102 in Figure 3, in connection with the recited downloading interface. *See* Ans. 5-6, 35-36.

As shown in Chou's Figures 2 and 3, Chou's network interface 320 communicates wirelessly with remote service center 200 whose diagnostic server 201 accesses vehicle-related data, including diagnostics and failure mode data. *See* Chou, col. 3, ll. 15-32; col. 5, ll. 33-39. In one aspect, the diagnostic server sends a health report to a vehicle's client computer device 101, where the report is based on trouble codes reported by the client. Chou, col. 6, ll. 1-14. If a fault or fault potential is identified, the server (1) informs the vehicle's client computer device via the data connection, and (2) compiles the relevant data and creates a case for an associated call center system 202 to handle. Chou, col. 6, ll. 15-19.

Chou's system can also provide vehicle health checkups upon driver request. *See* Chou, col. 8, l. 65 - col. 10, l. 11; Fig. 5. After the driver triggers a health checkup session, vehicle data, including trouble codes, are sent to the diagnostic server where this information is compared with that stored in a repository, and a corresponding report is prepared and sent back to the vehicle for display. Chou, col. 9, ll. 1-59; Fig. 5.

Although this functionality facilitates downloading vehicle-related data and is, therefore, a "downloading interface" at least in that sense, it nevertheless does not permit downloading the *particular enabling data* recited in the claim. As noted previously, this enabling data enables the recited controller to use a *particular* vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code. See '278 patent, col. 24, l. 5 - col. 25, l. 28; Figs. 10-13. To the extent that the Examiner finds that the data contained in the report sent from Chou's diagnostic server to the vehicle somehow contains this particular enabling data, there is no evidence on this record to substantiate such a finding.

Therefore, we agree with Appellant that Chou does not teach or suggest the recited multi-vehicle compatible controller and downloading interface. Although this deficiency is dispositive regarding our reversing the Examiner's obviousness rejection, we add that Appellant's evidence of secondary considerations of non-obviousness, including licensing, commercial success, copying by others, customer need, and the limited value for accused products without the invention (App. Br. 38—54; Reply Br. 11; 2017 Mc Alexander Decl. 119), only further weighs in favor of Appellant.

Therefore, we are persuaded that the Examiner erred in rejecting (1) independent claim 1; (2) independent claim 18 which recites commensurate limitations; and (3) dependent claims 4-8, 11, 12, and 19-21 for similar reasons. Because this issue is dispositive

regarding our reversing the Examiner's obviousness rejection of these claims, we need not address Appellants' other associated arguments including whether Chou teaches away from the claimed invention. See App. Br. 35-38.

Although Appellant's arguments regarding (1) the submitted evidence of secondary considerations of non-obviousness (App. Br. 38-54; Reply Br. 11), and (2) Chou teaching away from the claimed invention (App. Br. 35-38) are irrelevant to the Examiner's anticipation rejection over Chou (Ans. 30-42), we nonetheless find that Chou does not necessarily disclose the recited multi-vehicle compatible controller and downloading interface expressly or inherently for the reasons previously discussed.

Therefore, we are persuaded that the Examiner erred in rejecting (1) independent claim 1; (2) independent claim 18 which recites commensurate limitations; and (3) dependent claims 4-8, 11, 12, and 19-21 for similar reasons.

Because the Examiner has not shown that the additional cited prior art cures Chou's above-noted deficiencies, we will not sustain the obviousness rejections of claims 2, 3,9, 10,13-17, and 22 (Ans. 42—50) for similar reasons.

...

The Examiner's decision to reject claims 1-22 is reversed.

A Notice of Intent to Issue Reexam Certificate was mailed by USPTO on January 30, 2019.

End of discussion of prosecution history of '278 Patent.

Instant '309 Request for Reexam:

The instant '309 Request, hereafter also referred to as the '309 Request, was filed on May 24, 2019 by the same TPR which filed the '851 reexam and '587 reexam.

The SNQ Requirement

A printed publication raises a SNQ where there is a substantial likelihood that a reasonable examiner would consider the printed publication important in deciding whether or not the claim is patentable, unless the same SNQ has already been decided as to the claim in a final holding of invalidity by the Federal court system or by the Office in a previous examination. MPEP § 2242.

It is not sufficient that a request for reexamination merely proposes one or more rejections of a patent claim or claims as a basis for reexamination. It must first be demonstrated that a patent or printed publication that is relied upon in a proposed rejection presents a new, non-cumulative technological teaching that was not previously considered and discussed on the record during the prosecution of the application that resulted in the patent for which reexamination is requested, and during the prosecution of any other prior proceeding involving the patent for which reexamination is requested. MPEP § 2216.

The substantial new question of patentability may be based on art previously considered by the Office if the reference is presented in a new light or a different way that escaped review during earlier examination. MPEP § 2216.

SNQP/Reference Analysis

Attention is directed to MPEP 2216, i.e.:

> Under 35 U.S.C. 304, the Office must determine whether "a substantial new question of patentability" affecting any claim of the patent has been raised. 37 CFR 1.510(b)(1) requires that a request for ex parte reexamination include "a statement pointing out each substantial new question of patentability based on prior patents and printed publications." If such a new question is found, an order for ex parte reexamination of the patent is issued. **It is therefore important that the request clearly set forth in detail what the requester considers the**

> **"substantial new question of patentability" to be in view of prior patents and printed publications. The request must point out how any questions of patentability raised are substantially different from those raised in the previous examination of the patent before the Office.**
>
> It is not sufficient that a request for reexamination merely proposes one or more rejections of a patent claim or claims as a basis for reexamination. It must first be demonstrated that a patent or printed publication that is relied upon in a proposed rejection presents **a new, non-cumulative technological teaching** that was **not previously considered and discussed on the record during the prosecution of the application** that resulted in the patent for which reexamination is requested, **and during the prosecution of any other prior proceeding involving the patent for which reexamination is requested**. See also MPEP § 2242.
>
> The legal standard for ordering ex parte reexamination, as set forth in 35 U.S.C.303(a), requires a substantial new question of patentability. The substantial new question of patentability may be based on art previously considered by the Office **if** the reference is presented in a **new light or a different way that escaped review during earlier examination.**
>
> ....
>
> After the enactment of the Patent and Trademark Office Authorization Act of 2002 ("the 2002 Act"), a substantial new question of patentability can be raised by patents and printed publications "previously cited by or to the Office or considered by the Office" ("old art"). The 2002 Act did not negate the statutory requirement for a substantial new question of patentability that requires raising new questions about pre-existing technology. In the implementation of the 2002 Act, MPEP § 2242, subsection II.A. was revised. The revision permits raising a substantial new question of patentability based solely on old art, **but only if** the old art is "**presented/viewed in a new light, or in a different way, as compared with its use in the earlier concluded examination(s), in view of a material new argument or interpretation presented in the request.**" Thus, a request may properly raise a substantial new question of patentability by raising a material new analysis of previously considered reference(s) under the rationales authorized by KSR.
>
> **Questions relating to grounds of rejection other than those based on prior art patents or printed publications should not be included in the request and will not be considered by the examiner if included.** Examples of such questions that will not be considered are public use, on sale, and conduct by parties.
> (Emphasis added.)

Attention is also invited to MPEP 2242, I., i.e.:

> The presence or absence of "a substantial new question of patentability" determines whether or not reexamination is ordered. The meaning and scope of the term "a substantial new question of patentability" is not defined in the statute and must be developed to some extent on a case-by-case basis, using the case law to provide guidance as will be discussed in this section.
>
> If the prior art patents and printed publications raise a substantial question of patentability of at least one claim of the patent, then a substantial new question of patentability is present, **unless the same question of patentability has already been decided** by (A) a final holding of invalidity, after all appeals, or (B) by the Office in a previous examination or pending reexamination of the patent. A "previous examination" of the patent is: (A) the original examination of the application which matured into the patent; (B) the examination of the patent in a reissue application that has resulted in a reissue of the patent; or (C) the examination of the patent in an earlier pending or concluded reexamination .....
>
> A prior art patent or printed publication raises a substantial question of patentability where there is a substantial likelihood that a reasonable examiner would consider the prior art patent or printed publication important in deciding whether or not the claim is patentable. If the prior art patents and/or publications would be considered important, then the examiner should find "a substantial new question of patentability" **unless the same question of patentability has already been decided as to the claim** in a final holding of invalidity by the Federal court system or **by the Office in a previous examination.** For example, the same question of patentability may have already been decided by the Office where the examiner finds the additional (newly provided) prior art patents or printed publications *are merely cumulative to* ***similar*** *prior art* already fully considered by the Office in a previous examination of the claim.
>
> For "a substantial new question of patentability" to be present, it is only necessary that: (A) the prior art patents and/or printed publications raise a substantial question of patentability regarding at least one claim, i.e., the teaching of the (prior art) patents and printed publications is such that a reasonable examiner would consider the teaching to be important in deciding whether or not the claim is patentable; **and** (B) the same question of patentability as to the claim has not been decided by the Office in a previous examination or pending reexamination of the patent or in a final holding of invalidity by the Federal Courts in a decision on the merits involving the claim. It is not necessary that a "prima facie" case of unpatentability exist as to the claim in order for "a substantial new question of patentability" to be present as to the claim....
> (Emphasis added.)

Attention is also invited to 2258.01:

> ...For purposes of reexamination, a cumulative reference that is repetitive is one that substantially reiterates verbatim the teachings of a reference that was either previously relied upon or discussed in a prior Office proceeding even though the title or the citation of the reference may be different....

Finally, see also MPEP 2247.

SNQPs Raised in this '309 Request

Requester asserts that the cited references raise SNQPs in the following manner:

Issue 1	Cell Port Labs in view of Spelt, Jones and the SAE HS-3000 Manuals is asserted as raising SNQ regarding claims 1-22.
Issue 2	Jones alone or in view of SAE HS-3000 Manuals is asserted as raising SNQ regarding claims 1-22.

Claim Limitations Important to Patentability

In view of the prosecution history discussed above including the recent PTAB Decision Appeal No. 2018-008119, the following limitations (emphasis added) from representative claim 1 are deemed important to patentability:

> Claim 1. A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible tracking unit comprising:
>
> a vehicle position determining device;
>
> a wireless communications device;
>
> a **multi-vehicle compatible controller** for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information; said **multi-vehicle compatible controller** to be *coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one*

corresponding vehicle device code from among a plurality thereof for different vehicles; and

a **downloading interface** *for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.*

Issue 1: Proposed SNQP Based on Cell Port Labs

It is first noted that the Cell Port Labs Press Release is determined to be a printed publication. Further, it is agreed that the combination of Cell Port Labs Press Release in view of Spelt, Jones and the SAE HS-3000 Manuals raises a SNQ of patentability as to at least claim 1 of the Flick '278 patent. For purposes of SNQP analysis herein, lacking evidence to the contrary, the Cell Port Labs Press Release, Spelt, and Jones references are interpreted as describing the same communication apparatus using CP2100 capability based on similar publication dates and that each of these references appear to describe same system CP2100 by same company.

As prosecution history of '278 patent shows "a **multi-vehicle compatible controller** coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles" is a technological feature important to patentability of at least claim 1 in '278 patent.

As prosecution history of '278 patent also shows "a **downloading interface** for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller" is a technological feature important to patentability of the claims in '278 patent.

Requester asserts the Cell Port Labs Press Release in view of Spelt, Jones and SAE HS-3000 Manuals, raises a substantial new question of patentability as to claims 1-22 of the '278 patent. *See,* e.g., 12-13 of the Request.

The prosecution history indicates that the **SAE HS-3000 Manuals** was first considered in relation to the '278 Patent during the '851 reexam; while, the Cell Port Labs Press Release, Spelt and Jones were not of record during the prosecution of any application to which the benefit of priority is claimed as well as were not of record during the '587 reexamination and '851 reexamination. Accordingly, such references is not precluded from raising a substantial new question of patentability.

SAE HS-3000 Manuals however were not only cited but applied by the examiner during the prosecution of at least '851 reexam.

Accordingly, at least the **SAE HS-3000 Manuals** reference/evidence is "old art". However, as set forth *supra*, e.g., MPEP 2242 states:

> *"for example, a substantial new question of patentability may be based solely on old art where the old art is being presented viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request."*

In this instance, Requester, see, e.g., Sections V (pages 10-12), VI, A. (pages 12-21) and VI, B. (pages 21-29) of the Request, asserts the combination of Cell Port Labs Press Release, Spelt, Jones and the SAE HS-3000 Manuals (previously before/considered by the Examiner during the examination/prosecution of the '851 reexam), see *supra*, a combination which was not considered during prosecution since the references to, e.g., Cell Port Labs Press Release, Spelt,

Jones were not even cited during prosecution. Accordingly, such combination is not precluded from raising a substantial new question of patentability.

During prosecution of the '272 application that led to the issuance of the '278 patent and the confirmation of patentability in the 90/013,587 reexam and the confirmation of patentability in the 90/013,851 reexam, the independent claims were allowed for reasons set forth by Examiner, see Summary of Prosecution History *supra*.

See the Request at, e.g., Sections V (pages 10-12), VI, A. (pages 12-21), Exhibit D, e.g., bridging pages 5-8. Such sections of the instant Request set forth:

> "**V. CITATION OF PERTINENT AND APPLICABLE PRIOR ART BELIEVED TO HAVE BEARING ON PATENTABILITY**"
>
> ...
>
> Requester submits that the references listed in the table above raise substantial new questions of patentability of the claims of the Flick '278 patent. In particular, the Cell Port Press Release (including its inherent disclosure of Spelt) and Jones, which are prior art patents or publications that have not previously been considered in evaluating the validity of the claims of the Flick '278 patent, disclose each and every limitation of the independent claims of the Flick '278 patent.
>
> The 1994 SAE FIS-3000 Manual and the 1997 SAE FIS-3000 Manual were considered during the '278 Second Reexam. Aside from these, none of the other references listed in the table above were considered during either the '278 File History, the '278 First Reexam, or the '278 Second Reexam.
>
> With respect to previously-considered prior art references, MPEP § 2258.01 states: "If the rejection to be made by the examiner will be based on a combination of 'old art' and art newly cited during the reexamination proceeding, the rejection is proper, and should be made. See In re Hiniker, 150 F.3d at 1367, 47 USPQ2d at 1527. (Court held the reexamination proceeding was supported by a substantial new question of patentability where the rejection before the court was based on a combination of art that had been before the examiner during the original prosecution, and art newly cited during the reexamination proceeding.)." Accordingly, the 1994 and 1997 SAE HS-3000 Manuals,

when viewed with the Cell Port Labs Press Release, Spelt, and the Jones references, are presented in a new light and raise a substantial new question of patentability.

In view of the above, Requester submits that the prior art references submitted herein present substantial new questions as to the patentability of the Flick '278 patent.

VI. STATEMENTS POINTING OUT EACH SUBSTANTIAL NEW QUESTION OF PATENTABI LITY

...

As explained in greater detail below, the references listed in the table above, either alone or in combination, raise substantial new questions of patentability not previously considered or addressed in the prior examination of the Flick '278 patent. More specifically, the Cell Port Labs Press Release (including the inherent disclosure of Spelt) and Jones individually anticipate at least the independent claims of the Flick '278 patent. Thus, the Cell Port Labs Press Release, Spelt, and Jones in combination with the other references listed in the table above, raise substantial new questions of patentability not previously considered or addressed in the prior examination of the Flick '278 patent.

A. The Cell Port Labs Press Release, Spelt, Jones, and the SAE HS-3000 Manuals

The Cell Port Labs Press Release was published on July 26, 1999. Spelt was published in 1998 by Spelt et al. The SAE HS-3000 Manuals (with 1994 and 1997 publication dates) set forth various standards, each under a particular SAE heading number, related to vehicle control systems that communicate with vehicle devices on a vehicle bus to obtain diagnostic information. Therefore, the Cell Port Labs Press Release, Spelt, and the SAE HS-3000 Manuals are prior art to the Flick '278 patent under pre-AIA 35 U.S.C. § 102(a) and (b). U.S. Patent No. 6,430,164 to Jones et al. was filed November 1, 1999, and issued August 6, 2002, and therefore Jones is prior art to the Flick '278 patent under pre-AIA 35 U.S.C. § 102(a), (b), and/or (e).

The Cell Port Labs, Spelt, and Jones references were not considered during the prosecution of the Flick '278 patent or the now-concluded '278 First and Second Reexams. The SAE HS-3000 Manuals were considered during the '278 Second Reexam, but are now being presented in a new light in view of the Cell Port Labs Press Release, Spelt, and Jones. These references provide a new technological teaching that raises a substantial new question of patentability.

1. Technological Teaching: A Mobile Network Server that Supports "Plug-and-Play" Multi-Vehicle Compatibility for Different Vehicles with a Downloading Interface and GPS

Cell Port Labs, Inc. (hereinafter, "Cell Port Labs") developed the CP2100 which was "a mobile network server designed to enable bi-directional data communications and network management functions within vehicles and provide real-time, wireless connectivity between vehicles and remote applications." CellPort Delivers Wireless, Vehicle-Based Applications Platform; Announces CP2100 Mobile Network Server, PRNEWSWIRE, July 26, 1999 (hereinafter, "Cell Port Labs Press Release")....

...

... the CP2100 interfaces to vehicle data buses (vehicle networks) such as the CAN and J1850. Furthermore, the Cell Port Labs Press Release discloses that "CellPort offers the first commercial product designed specifically to manage the growing list of in-vehicle networks, including IDB, CAN, USB and more." Cell Port Labs Press Release. The Cell Port Labs Press Release also discloses that the "CP2100 supports a variety of emerging vehicle bus interfaces, including IDB, J1708, J1850, CAN and ODBN". Cell Port Labs Press Release.

Additionally, the Cell Port Labs Press Release notes that Cell Port Labs was a participant in the IDB Demonstration Program, whereby it "provided connectivity to the Internet for many IDB-based vehicle systems on three IDB demonstration vehicles." Cell Port Labs Press Release. As discussed below, the IDB demonstration involved demonstrating the capability of the CP2100 utilizing the bus discovery protocols contained within the SAE standards disclosed in the 1994 and 1997 SAE HS-3000 Manuals to provide "plug-and-play" connectivity with a Chrysler Concorde LXi, a Cadillac SLS, and a Ford Lincoln Continental via the OBD-II connector contained within each of the vehicles. *See* Spelt, p. 122-2.

The publication titled "A Demonstration Project for the ITS Data Bus Prototype" published in 1998 by Spelt et al. provides details regarding the IDB Demonstration Program noted in the Cell Port Labs Press Release. Philip F. Spelt & Allan M. Kirson, *A Demonstration Project for the ITS DATA Bus Prototype*, DIGITAL AVIONICS SYSTEMS CONFERENCE, 1998. PROCEEDINGS., 17™ DASC. Oct. 31-Nov. 7, 1998, Print ISBN: 0-7803-5086-3 (hereinafter, "Spelt").

Spelt discloses that Cell Port Labs, Inc. was a company participant in the IDB Demo98 project. Spelt, p. 122-3, Table 1. Furthermore, Spelt discloses that the

goal of the Demo98 project was "to demonstrate several of the functional requirements and capabilities of the IDB. These include 'hot plug-and-play of devices, interoperability of a device in different vehicles, and the information-sharing capacity of devices connected to the IDB." Spelt, p. 122-1 (emphasis added). As discussed above, other "[c]ompanies participating in Demo98 include the United States 'Big Three' automobile manufacturers: Chrysler (Concorde LXi), General Motors (Cadillac SLS), and Ford (Lincoln Continental)." Spelt, p. 122-2.

Additionally, Spelt elaborates on one of the important objectives of the Demo98 project: "The Plug-and-Play Scenario is the most fundamental and general of the four scenarios developed for Demo98. It is intended to demonstrate the IDB characteristics of 'hot plug-and-play' and the as can reasonably be shown with the devices provided by the participants. Thus, as the title implies, the hot plug-and-play capabilities of the IDB protocol are shown by inserting and removing devices while the IDB is alive and functioning. This demonstrates the inherent reconfigurability designed into the IDB protocol, by showing that current devices, which may have depended on another no longer available device, will still function on the IDB." Spelt, p. 122-2.

The "SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual" (with 1994 and 1997 publication dates; hereinafter, "1994 SAE HS-3000 Manual" and "1997 SAE HS-3000 Manual") provides the implementation details and recommended practices of the J1708, J1850 and OBD-II Scan Tool bus interfaces. In particular, the SAE HS-3000 Manual discloses that a device code on the vehicle data bus can be an SAE standard and/or one of seven manufacturer specific version of the device code. *See* e.g., 1994 SAE HS-3000 Manual, p. 213, Section 4 of SAE J2178/2. Furthermore, the 1994 and 1997 SAE HS-3000 Manuals disclose a bus discovery process involving reading different versions of a mode 1 PID 0 device code from the data communications bus and determining a match between a read device code and a plurality of stored device codes. *See* e.g., 1994 SAE HS-3000 Manual, p. 37, section 6.5.2 INITIALIZATION DETAILS of SAE J1978. It is the implementation of this standard that enables the CP2100 to have the "hot plug-and-play" capabilities demonstrated in the SAE IDB Demo98 Demonstration Program in which the ability of the CP2100 to perform bus discovery to connect and communicate with a Chrysler Concorde LXi, a Cadillac SLS, and a Ford Lincoln Continental via the OBD-II connector of each vehicle was demonstrated....

The Cell Port Labs Press Release also discloses that the CP2100 is a multi-vehicle compatible controller cooperating with a wireless communications device by disclosing that the CP2100 includes "protocol conversion for a variety of vehicle buses and devices, wireless gateway communications independent of wireless

links, and embedded application router management capabilities." Cell Port Labs Press Release. The Cell Port Labs Press Release discloses that the CP2100 allows vehicle manufacturers and other entities to "connect a wide range of vehicles to their networks, including Extranets, Intranets, and Internet sites." Cell Port Labs Press Release. Moreover, the CP2100 overcomes a major obstacle - "that of integrating various data management functions within the vehicle and linking them with a centralized application via wireless communication networks." Cell Port Labs Press Release. The Cell Port Labs Press Release states that the CP2100 "provide[s] real-time, wireless connectivity between vehicles and remote applications" and that the CP2100's "[w]ireless airlink capabilities include cellular, spread spectrum radio, satellite and private radio." *Id.*

The Cell Port Labs Press Release further discloses a vehicle position determining device, stating that "[d]ata from the host can be sent to the vehicle to communicate with the operator, **provide GPS information**, run diagnostic routines, reconfigure data collection routines, download code and run executable software." Cell Port Labs Press Release (emphasis added).

The Cell Port Labs Press Release also discloses a downloading interface for downloading enabling data related to the corresponding vehicle device code by disclosing that "[d]ata from the host can be sent to the vehicle to communicate with the operator, provide GPS information, **run diagnostic routines, reconfigure data collection routines, download code and run executable software**." Cell Port Labs Press Release (emphasis added). This ability to download code and run executable software allows the CP2100 to communicate with multiple types of vehicles. Furthermore, in "run[ning] diagnostic routines" and "reconfiguring] data collection routines," the CP2100 necessarily must perform the bus discovery protocol (see, e.g., 1994 SAE HS-3000 Manual, page 37, section 6.5.2 INITIALIZATION DETAILS of SAE J1978) involving inspecting vehicle device codes to identify the particular type of vehicle and vehicle bus protocols that it utilizes. Once the bus discovery protocol is performed, the CP2100 identifies the type of vehicle to the remote host. The remote host then provides enabling data to configure the CP2100 to use appropriate device codes to run diagnostic routines and perform data collection routines for that specific type of vehicle.

Jones discloses the downloading interface for permitting downloading of enabling data related to the vehicle device code by disclosing that "the portal apparatus facilitates downloading of software configurations and updates to each communications apparatus in the vehicles of the particular fleet, as well as **facilitating the obtaining of vehicle operational data and other information including diagnostic data and status information including fault-related data**." Jones, 4:1-6 (emphasis added). In other words, Jones discloses enabling

data and directing which vehicle device codes to use to obtain vehicle operational data, diagnostics data, status and fault related data for a particular type of vehicle. For example, Figure 2 of Jones shows the configuration packet 300 containing an OBD-II field which requires a number of fields "to identify the particular subsystem from which [vehicle operational] data is being requested" from OBD-II subsystem 32, where said fields are configured in configuration packet 300 according to the particular vehicle device codes that are used for that particular vehicle. Jones, 15:32-37.

Jones also discloses that the downloading of updates includes enabling data with respect to specific vehicle devices to enable "plug and play" without any requirement to modify the vehicle device for communication with the CP2100 (i.e. the CP2100 achieves its "plug and play" capability by downloading the device codes and protocols necessary to communicate with the device). For example, Jones discloses that "[b]ased on the foregoing summary, a number of salient aspects of the present invention are readily identified. **Transfers of information including data relative to different devices, buses and/or networks are substantially seamlessly achieved**. Such transfers can be accomplished among these different subsystems without requiring that they be modified, thereby achieving a "**plug and play**" result. The disparate subsystems include protocol dependent components as well as close-ended devices at which data flow originates or is terminated, such as a GPS." Jones, 4:7-15 (emphasis added).

Jones also discloses, generally, a detailed process for maintenance and/or configuration updates for the plurality of vehicle device codes, whereby reconfiguring or updating software on the communications apparatuses 22 is "preferably sent as a single file from the portal apparatus 310 to one or more selected communications apparatuses 22 through the wireless network 314." Jones, 20:37-39; see also generally, 19:60-21:46. Once these vehicle device codes are received, "the configuration manager 180 is responsible for extracting changes from the configuration in the file and applying them to the communications apparatus 22 in a shadow or mirror form." *Id.* at 20:54-58.

...

3. Substantial New Question of Patentability as to Claims 1 through 22

Each of claims 1 through 22 require at least: a vehicle data bus, a vehicle position determining device, a wireless communications device, a multi-vehicle compatible controller, and a downloading interface for permitting downloading of enabling data. As shown above, the *Cell Port Labs Press Release in combination*

with Spelt, Jones, and the SAE HS-3000 Manuals disclose these limitations, and more detail is shown in the claim chart attached as Exhibit D.

Accordingly, it is submitted that:

- All aspects of claims 1, 13, and 18 are disclosed by the Cell Port Labs Press Release in view of Spelt and the SAE HS-3000 Manuals.

- All aspects of claims 1-22 are disclosed by the Cell Port Labs Press Release in view of Spelt, Jones, and the SAE HS-3000 Manuals.

As shown above, a reasonable examiner would consider the teachings of the Cell Port Labs Press Release, Spelt, the SAE HS-3000 Manuals, and Jones important in deciding whether or not claims 1 through 22 of the Flick '278 patent are patentable. For these reasons, the Cell Port Labs Press Release (with the inherent disclosure of Spelt) in combination with the SAE HS-3000 Manuals raise a substantial new question of patentability with respect to the claims of the Flick '278 patent. Additionally, the Cell Port Labs Press Release (with the inherent disclosure of Spelt) in combination with Jones and the SAE HS-3000 Manuals raise a substantial new question of patentability with respect to the claims of the Flick '278 patent.

Therefore, for example, the facts regarding *Cell Port Labs Press Release* (e.g., "in the vehicle, the CP2100 provides network controller and server capabilities based on an integrated Power PC 823 embedded computing system", "... tracking and monitoring of fleet vehicles,... and in-vehicle information/entertainments systems", "the CP2100, a mobile network server designed to enable bi-directional data communications and network management functions within vehicles and provide real-time, wireless connectivity between vehicles and remote applications... the CP2100 will enable users to extend corporate enterprise management systems to vehicles and mobile computing devices", "CellPort offers the first commercial product designed specifically to manage the growing list of in-vehicle networks, including IDB, CAN, USB and more", "The CP2100 supports a variety of emerging vehicles bus interfaces, including IDB, J1708, CAN and ODBII" , "The CP2100 is also a universal gateway for real-time wireless

data communication, extending the Internet Protocol (IP) over wireless networks to the vehicle", "CellPort's new product enables the various data networks and electronic devices within a vehicle to function as a node on the Internet", "As a participant in the IDB Demonstration Program ... CellPort provided connectivity to the Internet for many IDB-based vehicle systems on three IDB demonstration vehicles", "Wireless connectivity and protocol conversion are key ingredients for the successful implementation of advanced Telematics systems and the development of Internet-based systems within the vehicle... Cellport's technology proved invaluable in linking the wide range of IDB-based systems and applications in our three demonstration vehicles to fixed networks via wireless links", "The technical features of the CP2100 include protocol conversion for a variety of vehicle buses and devices, wireless gateway communications independent of wireless links, and embedded application router management capabilities", "The CP2100 architecture allows vehicle networks and RF links to be separated by a controller/gateway, providing a software application layer between the airlink and the vehicle... Data from the host can be sent to the vehicle to communicate with the operator, provide GPS information, run diagnostic routines, reconfigure data collection routines, download code and run executable software") in combination with *Spelt* (e.g. "Cell Port Labs, Inc. was a company participant in the IDB Demo98 project", "the goal of the Demo98 is to demonstrate several of the functional requirements and capabilities of the IDB. These include 'hot plug-and-play of devices, interoperability of a device in different vehicles, and the information-sharing capacity of devices connected to the IDB", "[c]ompanies participating in Demo98 include the United States 'Big Three' automobile manufacturers: Chrysler (Concorde LXi), General Motors (Cadillac SLS), and Ford (Lincoln Continental", "The Plug-and-Play Scenario is the most fundamental and general of the four scenarios developed for Demo98. It is intended to

demonstrate the IDB characteristics of 'hot plug-and-play' and the as can reasonably be shown with the devices provided by the participants. Thus, as the title implies, the hot plug-and-play capabilities of the IDB protocol are shown by inserting and removing devices while the IDB is alive and functioning. This demonstrates the inherent reconfigurability designed into the IDB protocol, by showing that current devices, which may have depended on another no longer available device, will still function on the IDB"), *Jones* (e.g. "the portal apparatus facilitates downloading of software configurations and updates to each communications apparatus in the vehicles of the particular fleet, as well as facilitating the obtaining of vehicle operational data and other information including diagnostic data and status information including fault-related data", "Transfers of information including data relative to different devices, buses and/or networks are substantially seamlessly achieved. Such transfers can be accomplished among these different subsystems without requiring that they be modified, thereby achieving a "plug and play" result. The disparate subsystems include protocol dependent components as well as close-ended devices at which data flow originates or is terminated, such as a GPS", "A communications apparatus for enabling communications among networks, buses, devices and other subsystems having different communication requirements is provided. The communications apparatus offers an open architecture for interoperability among diverse subsystems. The communications apparatus is particularly applicable in a vehicle… a portal apparatus located remote from the vehicle facilitates communications with the communications apparatus, particularly where the vehicle is part of a vehicle fleet. The communications apparatus includes a common module that has at least one protocol by which disparate subsystems can communicate with each other. One or more managers can be defined as being part of the common module. The disparate subsystem managers provide the necessary interfacing to enable the disparate subsystems to communicate

between and among each other using the common module. Each such manager has dedicated functionalities to facilitate communications. Managers associated with the common module may include managers for use in configuration and diagnostic tasks, encryption/decryption, compression/de-compression, controlling data flow, security regulation, and selecting an acceptable link for outside communications", "An example of such a close-ended device might be a global positioning system (GPS) that is useful in providing vehicle location information or a hardware device, such as a vehicle sensor from which data can be obtained for a particular vehicle component to which the sensor is operably connected", "In addition to the GPS, disparate subsystems may include an Internet protocol (IP) stack comprised of a number of network layers that are commonly involved in transfers using the Internet, a controller area network (CAN) found in at least some vehicles and which includes a bus along which a number of vehicle elements, communicate for supplying information concerning such elements. The disparate subsystems can also include an intelligent transportation system data bus (IDB) and/or an onboard diagnostics (OBD) that are involved with monitoring and providing information related to vehicle components", "Other disparate subsystems may include … a standard serial bus, a universal serial bus (USB), a user datagram packet/Internet protocol stack and a cellphone, as well as one or more other customer proprietary devices", "In conjunction with enabling communications between and among the disparate subsystems, as well as communications outside the vehicle, the communications apparatus includes a common module and a number of disparate subsystem managers. The common module is defined as being comprised of a number of common module managers, which may include one or more of the following:… a configuration manager for use in downloading applications, configuring routing tables, reviewing error logs and other assigned tasks; a diagnostics manager for collecting and relaying

diagnostic data;… as well as user-defined services, that can process, filter or otherwise act on available data", "… data gathering and other communications are facilitated involving a fleet of vehicles, with each having an embedded communications apparatus. … a portal apparatus acts as a communications link between vehicle fleets and the fleet managing subsystem. The portal apparatus facilitates downloading of software configurations and updates to each communications apparatus in the vehicles of the particular fleet, as well as facilitating the obtaining of vehicle operational data and other information including diagnostic data and status information including fault-related data", "common module 90 also includes a processing subsystem… Power PC") and *SAE HS-3000 Manuals* (e.g. "provides the implementation details and recommended practices of the J1708, J1850 and OBD-II Scan Tool bus interfaces. In particular, the SAE HS-3000 Manual discloses that a device code on the vehicle data bus can be an SAE standard and/or one of seven manufacturer specific version of the device code", "disclose a bus discovery process involving reading different versions of a mode 1 PID 0 device code from the data communications bus and determining a match between a read device code and a plurality of stored device codes") raises a substantial new question of patentability with respect to the "multi-vehicle compatible controller" or "downloading interface" as recited in independent claim 1, i.e., "**multi-vehicle compatible controller** to be *coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles*" and "a **downloading interface** *for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller*". In addition, the SAE HS-3000 Manuals as combined with Cell Port Labs Press Release, Spelt and Jones is being presented or viewed in a new light, or in a different way, as compared with its use

in the '851 reexamination, in view of material new argument or interpretation presented in the Request herein. Recall, Cell Port Labs Press Release, Spelt, Jones were not cited or applied in original examination of '272 application, '587 reexamination and '851 reexamination. Further, the combination of Cell Port Labs Press Release, Spelt, Jones with the SAE HS-3000 Manuals as presented in the Request herein is being presented or viewed in a new light, or in a different way, i.e., presents a new, non-cumulative technological teaching, as compared with its use in the '851 reexamination, in view of material new argument or interpretation presented in the Request herein.

Given the teachings of the combination of Cell Port Labs Press Release, Spelt, Jones and SAE HS-3000, a reasonable examiner would consider these teachings important in evaluating the patentability of the independent claims of the '278 patent. This art was not applied/so combined during a previous examination of US Patent No. 8,032,278, and the claims at issue are not the subject of a final holding by a Federal Court. Accordingly, these prior art patents and printed publications asserted in the Request raise a substantial question of patentability with respect to at least one claim, e.g. claim 1, of the '278 patent.

Issue 2: Proposed SNQP Based on Jones

It is agreed that the combination of Jones and the SAE HS-3000 Manuals raises a SNQ of patentability as to at least claim 1 of the Flick '278 patent.

As noted above, the prosecution history of '278 patent shows "a **multi-vehicle compatible controller** coupled to the vehicle data bus for communication thereover with at least

one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles" is a technological feature important to patentability of at least claim 1 in '278 patent.

Also, as noted above, the prosecution history of '278 patent also shows "a **downloading interface** for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller" is a technological feature important to patentability of the claims in '278 patent.

Requester asserts Jones in combination with the SAE HS-3000 Manuals raises a substantial new question of patentability as to claim 1-22 of the '278 patent. *See*, e.g., 12-13 of the Request.

See Discussion in Issue 1 herein above regarding SAE HS-3000 Manuals being "old" art.

See the Request at, e.g., Sections V (pages 10-12), VI, B. (pages 21-29), Exhibit E, e.g., bridging pages 3-6. Such sections of the instant Request set forth:

> "**V. CITATION OF PERTINENT AND APPLICABLE PRIOR ART BELIEVED TO HAVE BEARING ON PATENTABILITY**"
>
> ...
>
> Requester submits that the references listed in the table above raise substantial new questions of patentability of the claims of the Flick '278 patent. In particular, the Cell Port Press Release (including its inherent disclosure of Spelt) and Jones, which are prior art patents or publications that have not previously been considered in evaluating the validity of the claims of the Flick '278 patent, disclose each and every limitation of the independent claims of the Flick '278 patent.
>
> The 1994 SAE FIS-3000 Manual and the 1997 SAE FIS-3000 Manual were considered during the '278 Second Reexam. Aside from these, none of the other references listed in

the table above were considered during either the '278 File History, the '278 First Reexam, or the '278 Second Reexam.

With respect to previously-considered prior art references, MPEP § 2258.01 states: "If the rejection to be made by the examiner will be based on a combination of 'old art' and art newly cited during the reexamination proceeding, the rejection is proper, and should be made. See In re Hiniker, 150 F.3d at 1367, 47 USPQ2d at 1527. (Court held the reexamination proceeding was supported by a substantial new question of patentability where the rejection before the court was based on a combination of art that had been before the examiner during the original prosecution, and art newly cited during the reexamination proceeding.)." Accordingly, the 1994 and 1997 SAE HS-3000 Manuals, when viewed with the Cell Port Labs Press Release, Spelt, and the Jones references, are presented in a new light and raise a substantial new question of patentability.

In view of the above, Requester submits that the prior art references submitted herein present substantial new questions as to the patentability of the Flick '278 patent.

VI. STATEMENTS POINTING OUT EACH SUBSTANTIAL NEW QUESTION OF PATENTABI LITY

...

As explained in greater detail below, the references listed in the table above, either alone or in combination, raise substantial new questions of patentability not previously considered or addressed in the prior examination of the Flick '278 patent. More specifically, the Cell Port Labs Press Release (including the inherent disclosure of Spelt) and Jones individually anticipate at least the independent claims of the Flick '278 patent. Thus, the Cell Port Labs Press Release, Spelt, and Jones in combination with the other references listed in the table above, raise substantial new questions of patentability not previously considered or addressed in the prior examination of the Flick '278 patent.

B. U.S. Patent No. 6,430,164 to Jones, in view of the SAE HS-3000 Manuals

U.S. Patent No. 6,430,164 to Jones et al. was filed November 1, 1999, and issued August 6, 2002, and therefore Jones is prior art to the Flick '278 patent under pre-AIA 35 U.S.C. § 102(a), (b), and/or (e). This reference was not considered during the prosecution of the Flick '278 patent or the '278 First and Second Reexams. This reference provides a new technological teaching that raises a substantial new question of patentability.

1. Technological Teaching: A Communication Apparatus with "Plug-and-Play" Multi-Vehicle Compatibility Embedded in Different Vehicles with a Downloading Interface and GPS

Jones was filed by inventors Marc Jones, Charles Spaur, Michael Tibbets, and Patrick Kennedy on November 1, 1999, and then assigned to Cell Port Labs on October 26, 1999 (recorded on Nov. 1, 1999, Reel No. 010357, Frame 0498). Jones was issued from a patent application based upon the CP2100 and which was assigned to Cellport Systems, Inc. of Boulder, Colorado (i.e., Cell Port Labs, the company disclosed in the Cell Port Labs Press Release).

. . .

Jones teaches a vehicle tracking system for a vehicle comprising a vehicle data bus (e.g., IDB 28, OBD-II 32, CAN 36, and Standard Serial Bus 44) extending throughout the vehicle. Jones also teaches at least one vehicle device (e.g., Nodes 80b-80h).

Jones discloses a communication apparatus "contained within a vehicle having a number of disparate subsystems. The disparate subsystems include protocol based units and close-ended devices." Jones, 1:57-59. Jones further discloses that "[a]n example of such a close-ended device might be a global position system (GPS) that is useful in providing vehicle location information or a hardware device, such as a vehicle sensor from which data can be obtained for a particular vehicle component to which the sensor is operably connected[.]" Jones, 1-6; *see* also Fig. 1, elements 26 and 112.

Jones discloses a wireless communications device by disclosing a cellphone 64 and wireless network 314. Jones, Fig. 1; see also 5:52-53. Jones further discloses that "[t]he cellphone 64 is a useful communications tool in sending/receiving analog voice or digital data." Jones, 5:52-53.

Jones issued from a patent application based upon the CP2100 and which was assigned to Cellport Systems, Inc. of Boulder, Colorado (i.e., Cell Port Labs). Jones discloses a Cell Port Labs CP2100 Mobile Network Server (hereinafter, "CP2100") as an exemplary communication apparatus 22a-22n embedded in different vehicles. Jones, Fig. 3,19:7-15. The CP2100 is multivehicle compatible and includes a controller that cooperates with the transmitter and receiver of the CP2100. *See* e.g., Fig. 1, the CP2100 multi-vehicle compatible controller compatible with e.g., IDB 28, OBD-II 32, CAN 36, Standard Serial Bus 44. Jones, Fig. 1.

Jones also discloses that "[t]he system includes a plurality of disparate subsystems 20 and a communications apparatus 22. The disparate subsystems 20 in a vehicle can include one or more of the following components: Internet protocol (IP) stacks 24; **a global positioning system (GPS)** 26; **an intelligent transportation system data bus (IDB) 28; an onboard diagnostics (OBD-II) 32; a controller area network (CAN) 36**; a universal serial bus (USB) 40; a standard serial bus 44; an analog/digital converter

(ADC) 48; browser technology 52; voice recognition (VR) technology 56; text-to-speech (TTS) technology 60; **a cellphone 64; user datagram packets/Internet protocol stack(s) (UDP/IP)**, one or more custom or proprietary units or components, as well as any other presently or later devised subsystem that may be useful in a vehicle or another environment in which the system is operating." Jones, 4:55-67 (emphasis added).

Jones discloses the CP2100 supports a variety of different vehicle busses, including IDB, OBD-II and CAN. *See* e.g., Jones, 4:57-63 ("The disparate subsystems 20 in a vehicle can include one or more of the following components: Internet protocol (IP) stacks 24; a global positioning system (GPS) 26; an intelligent transportation system data bus (IDB) 28; an onboard diagnostics (OBD-II) 32; a controller area network (CAN) 36.").

Jones discloses a configuration packet 300 which requests OBD-II data from vehicle devices. See Jones, Fig. 2.

...

Jones discloses that the configuration packet 300 must specify "a destination, services that might be invoked, and data or other information being requested." Jones, 14:67-15:1. In other words, the process described in Figure 2 of Jones implicitly discloses that the multi-vehicle compatible controller must implement the SAE bus discovery process described in SAE J1978. Once the bus discovery protocol is performed, the CP2100 identifies the type of vehicle to the remote host, thereby determining which vehicle codes to use from the plurality of stored vehicle codes. The remote host then provides enabling data to configure the CP2100 to use appropriate device codes to run diagnostic routines and perform data collection routines for that specific type of vehicle.

The "SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual" with multiple publication dates including 1994 and 1997 (hereinafter the "1994 SAE HS-3000 Manual" and the "1997 SAE HS-3000 Manual"), provides the implementation details and recommended practices of the J1708, J1850 and OBDII bus interfaces.

In particular, the SAE HS-3000 Manual discloses that a device code on the vehicle data bus can be an SAE standard and/or one of seven manufacturer specific version of the device code. See e.g., 1994 SAE HS-3000 Manual, p. 213, Section 4 of SAE J2178/2. Furthermore, the 1994 and 1997 SAE HS-3000 Manuals disclose a bus discovery process involving reading different versions of a mode 1 PID 0 device code from the data communications bus and determining a match between a read device code and a stored device code. See e.g., 1994 SAE HS-3000 Manual, p. 37, section 6.5.2 INITIALIZATION DETAILS of SAE J1978. It is the implementation of this standard that enables the CP2100 to have the "hot plug-and-play" capabilities demonstrated in the SAE IDB Demo98 Demonstration Program in which the ability of the CP2100 to perform bus discovery to connect and communicate with a Chrysler Concorde LXi, a Cadillac SLS, and a Ford Lincoln Continental via the OBD-II connector of each vehicle was demonstrated.

Jones discloses a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code by disclosing that "the portal apparatus facilitates downloading of software configurations and updates to each communications apparatus in the vehicles of the particular fleet, as well as **facilitating the obtaining of vehicle operational data and other information including diagnostic data and status information including fault-related data**." Jones, 4:1-6 (emphasis added). In other words, Jones discloses enabling data and directing which vehicle device codes to use to obtain vehicle operational data, diagnostics data, status and fault related data for a particular type of vehicle. For example, Figure 2 of Jones shows the configuration packet 300 containing an OBD-II field which requires a number of fields "to identify the particular subsystem from which [vehicle operational] data is being requested" from OBD-II subsystem 32, where said fields are configured in configuration packet 300 according to the particular vehicle device codes that are used for that particular vehicle. Jones, 15:32-37.

Jones also discloses that the downloading of updates includes enabling data with respect to specific vehicle devices to enable "plug and play" without any requirement to modify the vehicle device for communication with the CP2100 (i.e. the CP2100 achieves its "plug and play" capability by downloading the device codes and protocols necessary to communicate with the device). For example, Jones discloses that "[b]ased on the foregoing summary, a number of salient aspects of the present invention are readily identified. **Transfers of information including data relative to different devices, buses and/or networks are substantially seamlessly achieved**. Such transfers can be accomplished among these different subsystems without requiring that they be modified, thereby achieving a "**plug and play**" result. The disparate subsystems include protocol dependent components as well as close-ended devices at which data flow originates or is terminated, such as a GPS." Jones, 4:7-15 (emphasis added).

Jones also discloses, generally, a detailed process for maintenance and/or configuration updates for the plurality of vehicle device codes, whereby reconfiguring or updating software on the communications apparatuses 22 is "preferably sent as a single file from the portal apparatus 310 to one or more selected communications apparatuses 22 through the wireless network 314." Jones, 20:37-39; *see also generally*, 19:60-21:46. Once these vehicle device codes are received, "the configuration manager 180 is responsible for extracting changes from the configuration in the file and applying them to the communications apparatus 22 in a shadow or mirror form." *Id.* at 20:54-58.

...

3. Substantial New Question of Patentability as to Claims 1 through 22

Each of claims 1 through 22 require at least: a vehicle data bus, a vehicle position determining device, a wireless communications device, a multi-vehicle compatible controller, and a downloading interface for permitting downloading of enabling data. As shown above, Jones in combination with the inherent disclosure of the SAE FIS-3000

> Manuals disclose these limitations, and more detail is shown in the claim chart attached as Exhibit E.
>
> Accordingly, it is submitted that all aspects of claims 1-22 are disclosed by Jones in view of the inherent disclosure of the SAE FIS-3000 Manuals.
>
> As shown above, a reasonable examiner would consider the teachings of Jones and the SAE FIS-3000 Manuals important in deciding whether or not claims 1 through 22 of the Flick '278 patent are patentable. For these reasons, Jones in combination with the inherent disclosures of the SAE HS-3000 Manuals submitted in this Request raise a substantial new question of patentability with respect to the claims of the Flick '278 patent.

Therefore, for example, the facts regarding Jones (e.g. "the portal apparatus facilitates downloading of software configurations and updates to each communications apparatus in the vehicles of the particular fleet, as well as facilitating the obtaining of vehicle operational data and other information including diagnostic data and status information including fault-related data", "Transfers of information including data relative to different devices, buses and/or networks are substantially seamlessly achieved. Such transfers can be accomplished among these different subsystems without requiring that they be modified, thereby achieving a "plug and play" result. The disparate subsystems include protocol dependent components as well as close-ended devices at which data flow originates or is terminated, such as a GPS", "A communications apparatus for enabling communications among networks, buses, devices and other subsystems having different communication requirements is provided. The communications apparatus offers an open architecture for interoperability among diverse subsystems. The communications apparatus is particularly applicable in a vehicle. a portal apparatus located remote from the vehicle facilitates communications with the communications apparatus, particularly where the vehicle is part of a vehicle fleet. The communications apparatus includes a common module that has at least one protocol by which disparate subsystems can communicate with each other. One or more managers can be defined as being part of the common module. The disparate subsystem

managers provide the necessary interfacing to enable the disparate subsystems to communicate between and among each other using the common module. Each such manager has dedicated functionalities to facilitate communications. Managers associated with the common module may include managers for use in configuration and diagnostic tasks, encryption/decryption, compression/de-compression, controlling data flow, security regulation, and selecting an acceptable link for outside communications", "An example of such a close-ended device might be a global positioning system (GPS) that is useful in providing vehicle location information or a hardware device, such as a vehicle sensor from which data can be obtained for a particular vehicle component to which the sensor is operably connected", "In addition to the GPS, disparate subsystems may include an Internet protocol (IP) stack comprised of a number of network layers that are commonly involved in transfers using the Internet, a controller area network (CAN) found in at least some vehicles and which includes a bus along which a number of vehicle elements, communicate for supplying information concerning such elements. The disparate subsystems can also include an intelligent transportation system data bus (IDB) and/or an onboard diagnostics (OBD) that are involved with monitoring and providing information related to vehicle components", "Other disparate subsystems may include … a standard serial bus, a universal serial bus (USB), a user datagram packet/Internet protocol stack and a cellphone, as well as one or more other customer proprietary devices", "In conjunction with enabling communications between and among the disparate subsystems, as well as communications outside the vehicle, the communications apparatus includes a common module and a number of disparate subsystem managers. The common module is defined as being comprised of a number of common module managers, which may include one or more of the following:… a configuration manager for use in downloading applications, configuring routing tables,

reviewing error logs and other assigned tasks; a diagnostics manager for collecting and relaying diagnostic data;… as well as user-defined services, that can process, filter or otherwise act on available data", "… data gathering and other communications are facilitated involving a fleet of vehicles, with each having an embedded communications apparatus. … a portal apparatus acts as a communications link between vehicle fleets and the fleet managing subsystem. The portal apparatus facilitates downloading of software configurations and updates to each communications apparatus in the vehicles of the particular fleet, as well as facilitating the obtaining of vehicle operational data and other information including diagnostic data and status information including fault-related data") and SAE HS-3000 Manuals (e.g. "provides the implementation details and recommended practices of the J1708, J1850 and OBD-II Scan Tool bus interfaces. In particular, the SAE HS-3000 Manual discloses that a device code on the vehicle data bus can be an SAE standard and/or one of seven manufacturer specific version of the device code", "disclose a bus discovery process involving reading different versions of a mode 1 PID 0 device code from the data communications bus and determining a match between a read device code and a plurality of stored device codes") raises a substantial new question of patentability with respect to the "multi-vehicle compatible controller" or "downloading interface" as recited in independent claim 1, i.e., "**multi-vehicle compatible controller** to be *coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles*" and "a **downloading interface** *for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller*". In addition, the SAE HS-3000 Manuals as combined with Jones is being presented or viewed in a new light, or in a different way, as compared with its use in the '851

reexamination, in view of material new argument or interpretation presented in the Request herein. Recall, Jones was not cited or applied in original examination of '272 application, '587 reexamination and '851 reexaminaiton. Further, the combination of Jones with the SAE HS-3000 Manuals as presented in the Request herein is being presented or viewed in a new light, or in a different way, i.e., presents a new, non-cumulative technological teaching, as compared with its use in the '851 reexamination, in view of material new argument or interpretation presented in the Request herein.

Given the teachings of the combination of Jones and SAE HS-3000, a reasonable examiner would consider these teachings important in evaluating the patentability of the independent claims of the '278 patent. This art was not applied/so combined during a previous examination of US Patent No. 8,032,278, and the claims at issue are not the subject of a final holding by a Federal Court. Accordingly, these prior art patents and printed publications asserted in the Request raise a substantial question of patentability with respect to at least one claim, e.g. claim 1, of the '278 patent.

Conclusion

Accordingly, as the findings above show that a substantial new question of patentability is present, reexamination is granted, see MPEP 2242. Claims 1-22 **will be** reexamined.

Correspondence

All correspondence relating to this ex parte reexamination proceeding should be directed:

By Mail to: Mail Stop *Ex Parte* Reexam
Central Reexamination Unit
Commissioner for Patents
United States Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

By FAX to: (571) 273-9900
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Any inquiry concerning this communication should be directed to the Central Reexamination Unit at telephone number 571-272-7705.

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Reexamination	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90/014,309	8032278
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Requester Correspondence Address: ☐ **Patent Owner** ☑ **Third Party**

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	90/014,309	8032278
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	MARK A SAGER	3992

CPC - Searched*		
Symbol	Date	Examiner

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
Reviewed prosecution history of 8032278 including 90/013587 and 90/013851. Also reviewed 90/03569, 90/013741, 90/01422 and 90/014038 discussed in Request.	06/17/2019	/MS/

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

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37 CFR 1.501 INFORMATION DISCLOSURE CITATION IN A PATENT

(Sheet 1 of 3)

Docket Number (Optional)	Patent Number
C13-03896.RE3	8,032,278
Applicant: Kenneth E. Flick	
Issue Date: October 4, 2011	Art Unit: 3661

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	6430164 B1	2002-08-06	Jones et al.	370	313	1999-11-01
	6606561 B2	2003-08-12	Flick	701	213	2001-05-17
	7149623 B2	2006-12-12	Flick	701	207	2003-03-07
	7720597 B2	2010-05-18	Flick	701	207	2005-03-09
	8032278 B2	2011-10-04	Flick	701	036	2007-07-03
	8032278 C1	2016-12-28	Flick	701	036	2015-09-14
	8032278 C2	2019-02-06	Flick	701	036	2016-10-28

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		CellPort Delivers Wireless, Vehicle-Based Applications Platform; Announces CP2100 Mobile Network Server, CellPort Labs, Inc., July 26, 1999.
		FLICK, U.S. Provisional Application No. 60/205,178, filed May 17, 2000.
		FLICK, U.S. Provisional Application No. 60/222,777, filed August 3, 2000.
		FLICK, U.S. Provisional Application No. 60,236,890, filed September 29, 2000.
		FLICK, U.S. Provisional Application No. 60/252,125, filed November 20, 2000.
		FLICK, U.S. Provisional Application No. 60/251,552, filed December 6, 2000.

EXAMINER	DATE CONSIDERED
/MARK SAGER/	06/27/2019

This collection of information is required by 37 CFR 1.501. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.S./

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37 CFR 1.501 INFORMATION DISCLOSURE CITATION IN A PATENT

(Sheet 2 of 3)

Docket Number (Optional)	Patent Number
C13-03896.RE3	8,032,278
Applicant: Kenneth E. Flick	
Issue Date: October 4, 2011	Art Unit: 3661

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		FLICK, U.S. Provisional Application No. 60/258,005, filed December 22, 2000.
		FLICK, U.S. Provisional Application No. 60,264,811, filed January 29, 2001.
		OMEGA PATENTS, LLC v. CALAMP CORP., 18-1309 (Fed. Cir. 2019)
		SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual, SAE HS-3000, Society of Automotive Engineers, Inc., 1994.
		SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual, SAE HS-3000, Society of Automotive Engineers, Inc., 1997.
		SPELT ET AL., A Demonstration Project for the ITS Data Bus Prototype, ISBN: 0-7803-5086-3, pp. I22/1 - I22/6, 1998

EXAMINER	DATE CONSIDERED
/MARK SAGER/	06/27/2019

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37 CFR 1.501 INFORMATION DISCLOSURE CITATION IN A PATENT

(Sheet 3 of 3)

Docket Number (Optional)	Patent Number
C13-03896.RE3	8,032,278
Applicant: Kenneth E. Flick	
Issue Date: October 4, 2011	Art Unit: 3661

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		WITHAM ET AL., U.S. Provisional Application No. 60/246,463, filed November 7, 2000.
		WRIGHT, Prep for a Multimedia Future, Auto Electronics, pp. 78-88, August 19, 1999.

EXAMINER	DATE CONSIDERED
/MARK SAGER/	06/27/2019

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/013,851	10/28/2016	8032278	C13-03896.RE2	8717

7590 11/13/2018

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EXAMINER
REICHLE, KARIN M

ART UNIT	PAPER NUMBER
3992	

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11/13/2018	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte OMEGA PATENTS, L.L.C.
Patent Owner and Appellant

Appeal 2018-008119
Reexamination Control 90/013,851
United States Patent 8,032,278 B2
Technology Center 3900

Before JOHN A. JEFFERY, MARC S. HOFF, and ERIC B. CHEN, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Patent Owner appeals under 35 U.S.C. §§ 134 and 306 the Examiner's decision to reject claims 1–22. We have jurisdiction under 35 U.S.C. §§ 134 and 306, and we heard the appeal on October 31, 2018. We reverse.

STATEMENT OF THE CASE

This proceeding arose from a request for *ex parte* reexamination filed on October 28, 2016 of United States Patent 8,032,278 ("the '278 patent"), issued to Kenneth E. Flick on October 4, 2011.

The '278 patent describes a tracking unit that is compatible with multiple vehicles. To this end, the tracking unit includes a multi-vehicle compatible controller that communicates with a vehicle device using a corresponding vehicle device code from among plural codes. The unit also has a downloading interface that permits downloading enabling data related to the corresponding vehicle device code, where enabling data may be (1) the vehicle device code; (2) an instruction to select a code from among those already stored; or (3) the data or sequence to allow the controller to generate the vehicle device code. *See generally* '278 patent, Abstract; col. 23, l. 41 – col. 24, l. 4.

Claim 1 is illustrative of the invention and is reproduced below:

1. A multi-vehicle compatible tracking unit for a vehicle comprising a vehicle data bus extending throughout the vehicle, the multi-vehicle compatible tracking unit comprising:
    a vehicle position determining device;
    a wireless communications device;
    a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;

said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles; and

a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.

RELATED PROCEEDINGS

This appeal is said to be related to various proceedings. First, Appellant informs us that briefs have been filed with the Court of Appeals for the Federal Circuit in connection with related litigation between Patent Owner and Requester (CalAmp). App. Br. 7–8; Reply Br. 2.[1] Also, a second litigation against Enfora, Inc. is said to be stayed pending the outcome of this reexamination. App. Br. 9; Reply Br. 2.

Appellant also informs us of seven other *ex parte* reexamination proceedings involving four patents, one of which (Control No. 90/013,587) resulted in issuing a reexamination certificate confirming patentability of the '278 patent's claims. *See* App. Br. 9–12; Reply Br. 3; *see also* US 8,032,278 C1, issued Dec. 28, 2016.

THE REJECTIONS

The Examiner rejected claims 1, 4–8, 11, 12, and 18–21 under 35 U.S.C. § 102(b) as anticipated by Chou (US 6,330,499 B1; issued Dec.

[1] Throughout this opinion, we refer to (1) the Appeal Brief filed February 27, 2018 ("App. Br."); (2) the Examiner's Answer mailed May 14, 2018 ("Ans."); and (3) the Reply Brief filed July 13, 2018 ("Reply Br.").

11, 2011), or, alternatively, under 35 U.S.C. § 103 as obvious over Chou. Ans. 30–42.

The Examiner rejected claims 9, 10, and 22 under 35 U.S.C. § 103 as obvious over Chou and Suman (US 6,028,537; issued Feb. 22, 2000). Ans. 42–46.

The Examiner rejected claims 2, 3, and 13–16 under 35 U.S.C. § 103 as obvious over Chou and Spaur (US 5,732,074; issued Mar. 24, 1998). Ans. 46–49.

The Examiner rejected claim 17 under 35 U.S.C. § 103 as obvious over Chou, Suman, and Spaur. Ans. 50.

PROCEDURAL MATTERS

Before addressing the merits of the Examiner's rejections at issue in this appeal, we first address several procedural matters. First, Appellant's contention that the Examiner improperly refused to enter various exhibits attached to the Final Office Action (App. Br. 16–19) is a petitionable—not appealable—matter and is, therefore, not before us.[2] *Accord* Ans. 3 (noting this petitionable matter).

We reach the same conclusion regarding Appellant's contention that the present reexamination was allegedly improperly granted. App. Br. 54–

[2] *See* MPEP § 706.01 ("[T]he Board will not hear or decide issues pertaining to objections and formal matters which are not properly before the Board."); *see also* MPEP § 1201 ("The Board will not ordinarily hear a question that should be decided by the Director on petition . . . .").

61. To be sure, the propriety of an Examiner's determination that a substantial new question of patentability (SNQ) exists in an *ex parte* reexamination proceeding is appealable to this Board so long as certain procedural requirements are satisfied. *See* MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) § 2274(VI) (9th ed. Rev. 08.2017, Jan. 2018).

But that is not the case where, as here, Appellant does not squarely address—let alone persuasively rebut—the Examiner's SNQ determination. *See* App. Br. 54–61. Rather, Appellant argues that due to the alleged inequities of multiple reexamination requests against the same claims of the same patent in this proceeding, we should apply a standard similar to that used by the Board in deciding to institute trials for follow-on petitions in *inter partes* review proceedings. *See id.*

We decline to do so here. Not only are Appellant's procedural grievances petitionable matters, they do not show error in the Examiner's SNQ determination. To the extent Appellant contends otherwise, we disagree.

THE OBVIOUSNESS REJECTION OVER CHOU

The Examiner finds that Chou discloses or suggests every recited element of independent claim 1 including a multi-vehicle compatible controller (e.g., processor 300 and memory 350) to be coupled to a vehicle data bus 140 for communication thereover with at least one vehicle device (electronic control unit (ECU) 103) using at least one vehicle device code, namely a diagnostic trouble code (DTC) or fault code, from among a plurality thereof for different vehicles. Ans. 31–35. The Examiner reasons

that because Chou's fault code is vehicle model dependent, the code can be used by the vehicle device from among plural such codes. *See* Ans. 4–5, 35. The Examiner adds that Chou also discloses or suggests a downloading interface (e.g., network interface 107, 320) for permitting downloading "enabling data" (e.g., instructions to gather data and vehicle parameter changes) related to at least one corresponding vehicle device code for use by the controller. Ans. 35–36.

Appellant argues that Chou does not teach or suggest the recited multi-vehicle compatible controller and downloading interface. App. Br. 19–35; Reply Br. 4–11. Although Appellant acknowledges that Chou's vehicle-dependent fault codes are listed in a Society of Automotive Engineers (SAE) publication, Appellant nonetheless emphasizes that these codes lack uniformity between manufacturers, and even within product lines of the same manufacturer—a problem that is said to be addressed by the claimed invention. App. Br. 24–26. According to Appellant, the Examiner's equating different vehicles in the context of the claimed invention to those of the same make and model, namely vehicles with identical electronics and vehicle codes, but with different trims, is inconsistent with the disclosure and, therefore, unreasonable. Reply Br. 6–9.

Appellant also argues that Chou does not teach or suggest the recited downloading interface, but rather merely passes data between an in-vehicle system and a remote service center. App. Br. 25–29. According to Appellant, Chou teaches away from the claimed invention by working with different vehicle codes at the service center—not the vehicle. App. Br. 35–38. Appellant adds that evidence of secondary considerations of non-

obviousness, including licensing, commercial success, copying by others, customer need, and the limited value for accused products without the invention, further rebuts the Examiner's obviousness rejection. App. Br. 38–54; Reply Br. 11.

ISSUE

Under § 103, has the Examiner erred in rejecting claim 1 by finding that Chou would have taught or suggested the recited multi-vehicle compatible controller and downloading interface?

ANALYSIS

We begin by construing a key disputed limitation of claim 1 which recites, in pertinent part, a multi-vehicle compatible controller. The Specification does not define the term, but does describe a multi-vehicle compatible controller 111 in Figure 10 that includes, among other things, a central processing unit 126 and input/output (I/O) circuitry 127 that interfaces with a vehicle device 121 using at least one corresponding vehicle device code from plural codes for different vehicles. '278 patent, col. 23, ll. 59–67. The corresponding vehicle code may be for reading from, or writing to, the vehicle device. *Id.* col. 23, l. 67 – col. 24, l. 3.

In related litigation involving the '278 patent, a U.S. District Court construed the term "multi-vehicle compatible controller" as "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle"—a construction that neither party disputed. *See Omega Patents, LLC v. CalAmp Corp.*, No. 6:13-cv-1950-Orl-40DAB,

(M.D. Fla. Feb. 20, 2015) ("Dist. Ct. Claim Construction Order"), at 6, 24, *cited in* App. Br. Rel. Proc. App. ("Item 8"). Although we apply a claim construction standard in *ex parte* reexamination proceedings different from that used by the court, we nonetheless find that the court's construction is consistent with the term's broadest reasonable interpretation in light of the Specification. *Accord Power Integrations, Inc. v. Lee*, 797 F.3d 1318, 1326–27 (Fed. Cir. 2015) (emphasizing the Board's obligation to (1) evaluate a district court's claim construction for terms at issue, and (2) determine whether that construction is consistent with the term's broadest reasonable interpretation).

Claim 1 further recites that the multi-vehicle compatible controller can communicate with at least one vehicle device using at least one corresponding vehicle device code from among plural device codes for different vehicles. The district court construed the term "device codes" as "signal from a vehicle device," Dist. Ct. Claim Construction Order at 17, 25—a construction that is likewise consistent with its broadest reasonable interpretation. Although the court did not construe the term "different vehicles," the '278 patent in column 22, lines 3 to 7 incorporates by reference a related patent, namely U.S. Patent No. 5,719,551 ("the '551 patent"), which explains that "the term different vehicles may include vehicles from different manufacturers, different models, or even different trim levels of the same make or model." '551 patent, col. 6, ll. 38–42. *Accord* Reply Br. 8 (acknowledging this explanation).

The term "trim level" in a vehicular context refers to a version of a vehicle model that comes equipped with a set combination of features. *See*

What is a Vehicle Trim Level?, THE NEWSWHEEL, http://thenewswheel.com/what-is-a-vehicle-trim-level (Oct. 27, 2017) ("Newswheel"). In defining "trim level," this article explains that although trim packages previously were typically purely aesthetic and only added non-functional touches like chrome accents and upholstery stitching, many automakers today include sets of higher-technology features and/or performance upgrades in trim packages, resulting in offering as many as 6–10 different trim levels for a given vehicle model. *Id.*

Although the Examiner construes the recited term "different vehicles" to include vehicles that are the same make and model but with different trims consistent with the '551 patent, the Examiner nonetheless includes vehicles whose *electronics are not different* as "different vehicles." *See* Ans. 4.

We find this construction problematic on this record. To be sure, Newswheel indicates that differences among trim packages were formerly purely aesthetic and non-functional, thus suggesting that the electronics in these vehicles in these different trim packages would be the same despite the vehicles' aesthetic differences.

But as Appellant indicates (Reply Br. 6–9), vehicles with identical electronics would use the same vehicle codes and, therefore, their inclusion runs counter to the functionality of the recited *multi-vehicle compatible* controller that can communicate with a vehicle device using at least one corresponding vehicle device code *from among plural codes for different vehicles*. Indeed, this compatibility with different vehicles and their different codes is a fundamental aspect of the claimed invention that solves a

longstanding problem in the art as Appellant indicates. *See* App. Br. 32 (noting that the lack of vehicle code compatibility among different vehicles for vehicle tracking units is the problem addressed by the '278 patent). To the extent that the Examiner construes the different vehicles in claim 1 to include those with the same vehicle codes, we find such a construction unreasonable when interpreted in light of the Specification.

In reaching this conclusion, we emphasize that the broadest reasonable interpretation in light of the Specification is not whether the Specification precludes some broad reading of the claim term adopted by the Examiner. *See In re Smith Int'l, Inc.*, 871 F.3d 1375, 1382–83 (Fed. Cir. 2017). Nor is the broadest reasonable interpretation simply one that is not inconsistent with the Specification. *Id.* at 1383. Rather, it is an interpretation that corresponds with what and how the inventor describes his invention in the Specification, that is, an interpretation consistent with the Specification. *Id.* (citing *In re Suitco Surface*, 603 F.3d 1255, 1259–60 (Fed. Cir. 2010)).

Therefore, we find the Examiner's reliance on Chou for teaching the recited multi-vehicle compatible controller problematic on this record. In Chou, a vehicle's ECUs 103 (which the Examiner maps to the recited "vehicle device" (*see* Ans. 35)) report fault codes to fault detector 120B via vehicle bus 140 and vehicle bus adapter 120C, the latter translating messages received from the bus into the language of the fault detector and vice-versa. Chou, col. 4, ll. 20–28; Fig. 3. Although these fault codes' specifications and protocols depend on the manufacturer and vehicle model,

and the codes are listed in an SAE publication,[3] that does not mean that Chou's controller is *compatible with multiple vehicles*, where the controller can communicate with a vehicle device using at least one corresponding vehicle device code from among plural codes for different vehicles as claimed. Indeed, this very SAE publication acknowledges the lack of uniformity in these codes between manufacturers and, in some cases, within the same manufacturer across different product lines. *See* App. Br. 26–27, 32 (quoting a passage from page 39 of the SAE HS-3000 manual). *Accord* Declaration by Joseph C. McAlexander, III Under 37 C.F.R. § 1.132, dated June 12, 2017 ("2017 McAlexander Decl.") ¶ 13 (quoting this passage). *See also* Rule 132 Declaration by Michael J. Suman, dated July 5, 2016 ("Item 4) ("Suman Decl.") ¶¶ 11–12 (declaring that, at the time of his U.S. Patent 6,028,537 whose provisional application was filed June 14, 1996, vehicle device codes were (1) proprietary to different manufacturers, (2) not made freely available, and (3) difficult to obtain). *Accord* Rule 132 Declaration By Joseph C. McAlexander, III, dated July 6, 2016 ("Item 5") ("2016 McAlexander Decl.") ¶ 10 (corroborating this testimony).

At best, Chou's controller is compatible with *one* vehicle, namely the particular vehicle whose fault codes correspond to that particular vehicle for which the controller was designed. *Accord* App. Br. 32 (noting that Chou's ECUs use their own respective trouble codes that are different for different vehicles). Although Chou's remote service center can work with different

[3] Chou refers to this publication as "SAE On-Board Diagnostics for Light and Medium Duty Vehicles Standards Manual." Chou, col. 4, ll. 33–36. For brevity and consistency, we refer to this manual consistent with Appellant's nomenclature, namely "SAE HS-3000." *See* App. Br. 25.

vehicle device codes using a server 201 and repository 203 in Figure 1 as Appellant acknowledges (App. Br. 37), Chou does not teach or suggest providing such a capability in a vehicle.

Nor do we find that Chou teaches or suggests the recited downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller. In the related litigation, the District Court did not construe the term "downloading interface," but did construe the term "enabling data" as data relating to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller—a construction that matches the terms in the claim. *See* Dist. Ct. Claim Construction Order at 20–23, 25.

According to the Specification, enabling data *may be, for example,* (1) the vehicle device code or codes; (2) an instruction to select a code or codes from among those already stored; or (3) the data or sequence to allow the controller 111 to generate the vehicle device code or codes. '278 patent, col. 24, ll. 9–13. Our emphasis on the permissive and exemplary language in this passage underscores that enabling data is not limited to these three alternatives.

But despite this non-limiting description, what is clear from Appellant's disclosure is that downloading enabling data via the recited interface enables the recited controller to use a *particular* vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the

controller to select or generate the code. *See* '278 patent, col. 24, l. 5 – col. 25, l. 28; Figs. 10–13.

Turning to the rejection, the Examiner refers to, among other things, Chou's network interface 320 and external device in Figure 2, as well as network interface 107 and cell phone 102 in Figure 3, in connection with the recited downloading interface. *See* Ans. 5–6, 35–36.

As shown in Chou's Figures 2 and 3, Chou's network interface 320 communicates wirelessly with remote service center 200 whose diagnostic server 201 accesses vehicle-related data, including diagnostics and failure mode data. *See* Chou, col. 3, ll. 15–32; col. 5, ll. 33–39. In one aspect, the diagnostic server sends a health report to a vehicle's client computer device 101, where the report is based on trouble codes reported by the client. Chou, col. 6, ll. 1–14. If a fault or fault potential is identified, the server (1) informs the vehicle's client computer device via the data connection, and (2) compiles the relevant data and creates a case for an associated call center system 202 to handle. Chou, col. 6, ll. 15–19.

Chou's system can also provide vehicle health checkups upon driver request. *See* Chou, col. 8, l. 65 – col. 10, l. 11; Fig. 5. After the driver triggers a health checkup session, vehicle data, including trouble codes, are sent to the diagnostic server where this information is compared with that stored in a repository, and a corresponding report is prepared and sent back to the vehicle for display. Chou, col. 9, ll. 1–59; Fig. 5.

Although this functionality facilitates downloading vehicle-related data and is, therefore, a "downloading interface" at least in that sense, it nevertheless does not permit downloading the *particular enabling data*

recited in the claim. As noted previously, this enabling data enables the recited controller to use a *particular* vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code. *See* '278 patent, col. 24, l. 5 – col. 25, l. 28; Figs. 10–13. To the extent that the Examiner finds that the data contained in the report sent from Chou's diagnostic server to the vehicle somehow contains this particular enabling data, there is no evidence on this record to substantiate such a finding.

Therefore, we agree with Appellant that Chou does not teach or suggest the recited multi-vehicle compatible controller and downloading interface. Although this deficiency is dispositive regarding our reversing the Examiner's obviousness rejection, we add that Appellant's evidence of secondary considerations of non-obviousness, including licensing, commercial success, copying by others, customer need, and the limited value for accused products without the invention (App. Br. 38–54; Reply Br. 11; 2017 McAlexander Decl. ¶ 19), only further weighs in favor of Appellant.

Therefore, we are persuaded that the Examiner erred in rejecting (1) independent claim 1; (2) independent claim 18 which recites commensurate limitations; and (3) dependent claims 4–8, 11, 12, and 19–21 for similar reasons. Because this issue is dispositive regarding our reversing the Examiner's obviousness rejection of these claims, we need not address Appellants' other associated arguments including whether Chou teaches away from the claimed invention. *See* App. Br. 35–38.

THE ANTICIPATION REJECTION

Although Appellant's arguments regarding (1) the submitted evidence of secondary considerations of non-obviousness (App. Br. 38–54; Reply Br. 11), and (2) Chou teaching away from the claimed invention (App. Br. 35–38) are irrelevant to the Examiner's anticipation rejection over Chou (Ans. 30–42),[4] we nonetheless find that Chou does not necessarily disclose the recited multi-vehicle compatible controller and downloading interface expressly or inherently for the reasons previously discussed.

Therefore, we are persuaded that the Examiner erred in rejecting (1) independent claim 1; (2) independent claim 18 which recites commensurate limitations; and (3) dependent claims 4–8, 11, 12, and 19–21 for similar reasons.

THE OTHER OBVIOUSNESS REJECTIONS

Because the Examiner has not shown that the additional cited prior art cures Chou's above-noted deficiencies, we will not sustain the obviousness rejections of claims 2, 3, 9, 10, 13–17, and 22 (Ans. 42–50) for similar reasons.

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[4] *See, e.g., Leggett & Platt, Inc. v. VUTEk, Inc.*, 537 F.3d 1349, 1356 (Fed. Cir. 2008) ("'[T]eaching away' is irrelevant to anticipation."); *see also Cohesive Technologies, Inc. v. Waters Corp.*, 543 F.3d 1351, 1364 (Fed. Cir. 2008) ("[O]bviousness requires analysis of secondary considerations of nonobviousness, while secondary considerations are not an element of a claim of anticipation.").

CONCLUSION

The Examiner erred in rejecting (1) claims 1, 4–8, 11, 12, and 18–21 under § 102, and (2) claims 1–22 under § 103.

DECISION

The Examiner's decision to reject claims 1–22 is reversed.

Requests for extensions of time in this *ex parte* reexamination proceeding are governed by 37 C.F.R. § 1.550(c). *See* 37 C.F.R. § 41.50(f).

REVERSED

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UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
ORLANDO DIVISION

OMEGA PATENTS, LLC,
a Georgia limited liability company,

Plaintiff,

v. Case No: 6:13-cv-1950-Orl-40DAB

CALAMP CORP.,
a Delaware corporation,

Defendant.

ORDER

This cause comes before the Court on the following:

1. Plaintiff's Motion for Claim Construction (Doc. 38), filed September 5, 2014;
2. Defendant Calamp Corp.'s Opening Claim Construction Brief (Doc. 39), filed September 5, 2014;
3. Plaintiff's Opposition to Calamp's Motion for Claim Construction (Doc. 40), filed October 3, 2014; and
4. Calamp Corp.'s Responsive Claim Construction Brief (Doc. 41), filed October 3, 2014.

The Court heard oral argument from the parties on November 24, 2014 (Doc. 46). At the conclusion of the hearing, the Court requested the parties to submit briefs addressing the issue of when and under what circumstances a claim should be construed by the Court. The parties filed briefs on this issue on December 12, 2014. (Docs. 48, 49). In total, the parties request the Court to construe eleven terms across five patents.[1]

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[1] The patents-in-suit include U.S. Patent Nos. 6,346,876 (the "'876 Patent"); 6,737,989

I. BACKGROUND

Plaintiff, Omega Patents, LLC ("Omega"), initiated this patent infringement lawsuit on December 20, 2013 (Doc. 1). Omega then filed a Motion for Claim Construction requesting the Court to construe two claims. (Doc. 38). Defendant Calamp Corp. ("Calamp") filed a claim construction brief requesting the Court to construe nine claims. (Doc. 39). The parties have reached agreement on the construction of the following claim terms: "Controller" and "Multi-vehicle compatible controller." (Doc. 38, p. 1). All of the patents-in-suit were invented by Mr. Kenneth E. Flick, and the technologies at issue involve control systems for vehicles with a data communications bus, which is a computer network within a vehicle, and various codes, signals, and data which monitor particular vehicle characteristics and conditions and which perform or command certain functions, including the operation of certain vehicle devices.

II. LEGAL STANDARDS FOR CLAIM CONSTRUCTION

The Court construes a patent claim as a matter of law. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996). To construe a claim, the Court begins with the words of the claim itself. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). Generally, the Court accords the words of a claim "their ordinary and customary meaning," which is "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (internal quotation marks omitted). Persons of ordinary skill in the art do not read the claim term in isolation, but in the context of the

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(the "'989 Patent"); 6,756,885 (the "'885 Patent"); 7,671,727 (the "'727 Patent"); and 8,032,278 (the "'278 Patent"). (Doc. 38, p. 2).

entire patent. *Id.* at 1313. If the ordinary meaning of claim language is "readily apparent even to lay judges," then claim construction requires "little more than the application of the widely accepted meaning of commonly understood words." *Id.* at 1314. But because the meaning of a claim term as understood by a person skilled in the art is often not immediately apparent, the Court looks to both intrinsic evidence (the words of the claims themselves, the specification, and the prosecution history) and extrinsic evidence (sources such as dictionaries and expert testimony). *Id.*; *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1328 (Fed. Cir. 2008).

The patent's specification is "the single best guide to the meaning of a disputed term," as it may reveal that the patentee intended a special definition to apply to a claim term that differs from its ordinary meaning or that the patentee intentionally disclaimed or disavowed the claim's scope. *Phillips*, 415 F.3d at 1315–16 (internal quotation marks omitted). The Court also considers the prosecution history, which is created by the patentee in an attempt to explain and obtain the patent. *Id.* at 1317. The prosecution history consists of the complete record of proceedings before the Patent and Trademark Office ("PTO") and the prior art cited during the examination of the patent. *Id.* Unlike the specification, which is a final product, the prosecution history is less useful in claim construction because it represents the ongoing negotiations between the PTO and applicant. *Id.*

The Court also looks at the prosecution history "to determine whether the applicant clearly and unambiguously 'disclaimed or disavowed'" an interpretation of claim scope in order to obtain the patent grant. *Middleton, Inc. v. Minn. Mining and Mfg. Co.*, 311 F.3d 1384, 1388 (Fed. Cir. 2002) (quoting *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d

448, 452 (Fed. Cir. 1985)). A patentee disclaims an interpretation by "clearly characterizing the invention in a way to try to overcome rejections based on prior art," as opposed to simply describing features of the prior art without distinguishing the claimed invention based on those features. *Computer Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1374–75 (Fed. Cir. 2008). Thus, the Court protects the public's reliance on the definitive statements made during the prosecution by precluding the patentee from "recapturing" through claim construction an interpretation disclaimed during prosecution. *Id.* at 1374 (quoting *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003)). However,

> [I]f the specification expressly defines a claim term and remarks made to distinguish claims from the prior art are broader than necessary to distinguish the prior art, the full breadth of the remark is not a clear and unambiguous disavowal of claim scope as required to depart from the meaning of the term provided in the written description.

Id. at 1375 (internal quotation marks omitted) (quoting *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1373 (Fed. Cir. 2003)).

Extrinsic evidence, such as expert testimony and dictionary definitions, is helpful but "less significant than the intrinsic record." *Phillips*, 415 F.3d at 1317 (internal quotation marks omitted). However, expert testimony about claim terms that is conclusory, unsupported or "clearly at odds" with the intrinsic evidence is not useful. *Id.* at 1318 (internal quotation marks omitted). Moreover, while dictionaries and treatises are relevant, the Court must ensure that the dictionary definition does not contradict a definition "found in or ascertained by a reading of the patent documents." *Id.* at 1322–23 (quoting *Vitronics*, 90 F.3d at 1584 n.6). "In sum, extrinsic evidence may be useful to the court, but it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the

context of the intrinsic evidence." *Phillips*, 415 F.3d at 1319. In the instant case, the parties agree that the Court need not consider extrinsic evidence to construe the claim terms in dispute, and neither party has presented extrinsic for the Court's consideration.

Several other principles guide the Court's construction of claim terms. First, the Court presumes that the same terms appearing in different portions of the claims have the same meaning, unless the specification and prosecution history clearly demonstrate otherwise. *Fin Control Sys. Pty, Ltd. v. OAM, Inc.*, 265 F.3d 1311, 1318 (Fed. Cir. 2001). While the "[i]nterpretation of a disputed claim term requires reference to the other claims," *Georgia-Pacific Corp. v. U.S. Gypsum Co.*, 195 F.3d 1322, 1331 (Fed. Cir. 1999), "the presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004). Courts are further cautioned that "a construction that renders the claimed invention inoperable should be viewed with extreme skepticism." *Talbert Fuel Sys. Patents Co. v. Unocal Corp.*, 275 F.3d 1371, 1376 (Fed. Cir. 2002) (citation omitted), *vacated and remanded on other grounds*, 537 U.S. 802 (2002).

Finally, district courts have an obligation to construe terms when it is necessary to resolve a genuine and material legal dispute between the parties. *See O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1361–62 (Fed. Cir. 2008); *E-Pass Techs., Inc. v. 3Com Corp.*, 473 F.3d 1213, 1219 (Fed. Cir. 2007) ("[A]ny articulated definition of a claim term ultimately must relate to the infringement questions that it is intended to answer."). The party requesting the Court to construe a claim term must demonstrate that the construction is both necessary and correct; that is, construction of

the claim term must be fundamental to issues of infringement or invalidity, and the Court may not issue an advisory opinion. *IP Cleaning S.p.A. v. Annovi Reverberi S.p.A.*, No. 08-cv-147-bbc, 2008 U.S. Dist. LEXIS 102312, at *3 (W.D. Wisc. Dec. 17, 2008).

III. AGREED TERMS

As previously noted, the parties have reached an agreement as to the proper construction of the following two terms:

Claim Term	Agreed Construction
Controller	Electronic circuitry that performs one or more control functions.
Multi-vehicle compatible controller	Electronic circuitry that performs one or more control functions, and can operate with more than one vehicle.

IV. DISPUTED TERMS

Omega filed the initial Motion for Claim Construction, requesting the Court to construe two terms: "transmitter" and "receiver." (Doc. 38). Accordingly, the Court will construe these two claims prior to addressing Calamp's request for construction of nine additional terms.

A. The '876 and '885 Patent Terms: "Transmitter" and "Receiver"

Claim Term	Omega's Construction	Calamp's Construction
Transmitter	Radio frequency transmitter.	Device that sends signals.
Receiver	Radio frequency receiver.	Device that receives signals.

The terms "transmitter" and "receiver" are used in asserted claims of the '876 Patent (Doc. 39-1) and the '885 Patent (Doc. 39-2). Turning first to the construction of "transmitter," Calamp contends that the patents describe the transmitter as sending

signals without restricting the specific type of signals being sent—that is, without limiting the construction to require "radio frequency." (Doc. 39, p. 21). Calamp submits that the '876 and '885 Patents do not specifically define transmitter to limit the meaning of that term as commonly understood by individuals skilled in the art.[2] (*Id.* at p. 22). Similarly, Calamp contends that "receiver" is described in the patents as receiving signals and is not restricted to radio frequency signals. (*Id.* at p. 23).[3]

Omega submits that Calamp's construction and citation to the specifications of the '876 and '885 patents fail to place the terms "transmitter" and "receiver" into the context of the invention which Omega argues envisions remote control systems for a vehicle. (Doc. 38, p. 6). Omega proposes that the Court need only consider the claims, read in light of the specification, to comprehend that the invention focuses upon a remote control system for cars. (*Id.*). Omega directs the Court to the '551 Patent, noting that both the '876 and '885 Patents claim priority back to the '551 Patent. The Court agrees with Omega that both the '876 and '885 Patents are continuations-in-part and claim priority back to the '551 Patent. (*Id.* at p. 7). The background to the '551 Patent provides:

> The concepts and features of the invention may also be desirably incorporated in a remote control system for a vehicle, such as a vehicle security system, a remote engine starter system, or a remote keyless entry system, for example. The remote control system preferably comprises a remote transmitter and a receiver within the vehicle for receiving a signal from the remote transmitter.[4]

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[2] Calamp directs the Court to the '876 Patent at 3:5–12; 3:63–4:9; 4:14–28; 4:33–36; 5:35–54; 5:55–6:2; 6:3–16; 6:17–27, and cites the '885 Patent at 3:5–12; 3:49–62; 4:5–8 4:9–24; 5:16–24; 5:35–62; 5:64–6:8. (Doc. 39, p. 22).

[3] Calamp cites the same specification language as was relied upon for its proposed construction of "transmitter."

[4] References to the column and lines within a given specification shall be denoted by the column number and line numbers. For example, column 1, lines 2–10 are denoted as 1:2–10.

(Doc. 38-3, 4:12–18).

As noted by counsel for Omega at the *Markman* hearing, Figure 1 of the '551 Patent depicts a remote transmitter/receiver, denoted as TX/RX (13), with an antenna (13a). (*Id.* at Fig. 1; 5:12–15). Similarly, Figure 2 of the '551 Patent also depicts a remote transmitter (57, 57a). (*Id.*, Fig. 2; 5:51–6:21). Figures 7, 8, and 9 of the '551 Patent also illustrate a radio frequency ("RF") transmitter and receiver and an antenna for communicating with various devices. [5] (*Id.*, Figs. 7–9, 8:1–35).

Omega next directs the Court to the abstract of the '876 Patent which describes "[a] control system [that] includes a transmitter and a receiver for receiving signals from the remote transmitter, and a multivehicle compatible controller cooperating with the transmitter and receiver." (Doc. 39-1). Similarly, the abstract of the '885 Patent describes the invention and states "[t]he approach is useful for a number of vehicle remote control functions including vehicle security, remote keyless entry and remote starting." (Doc. 39-2). While claim 1 of the '876 and '885 Patents do not describe the transmitter or receiver as remote, wireless, or receiving a RF signal, Omega correctly notes that no dependent claim in either patent limits the transmitter or receiver to a hardwired device. To the contrary, several dependent claims in the '876 and '885 Patents describe and discuss remote transmitters and receivers, including dependent claims 13–18 and 30–32 of the '876 Patent (Doc. 39-1) and claims 8, 12–15, 22–23, and 26–31 of the '885 Patent. (Doc. 39-2).

Based on the foregoing, the Court concludes that the dependent claims in the '876 and '885 Patents do not contain limitations or language requiring the Court to limit the

[5] Figures 1, 2, 7, 8, and 9 of the '551 Patent appear in Appendix A to this Order.

scope of the independent claims. Accordingly, the independent claims may properly be construed in the context of the patent specifications and in view of the '551 Patent to provide for remote control functions. Therefore, the Court construes the terms "transmitter" as **radio frequency transmitter** and the term "receiver" as **radio frequency receiver**, adopting the construction proposed by Omega.

B. The '876, '885, '727, and '278 Patent Terms: "Data Communication Bus/ Vehicle Data Communications Bus/ Vehicle Data Bus"

Claim Term	OMEGA's Construction	CALAMP's Construction
Data communication bus	*No construction needed; alternatively, it should be defined as follows:* Wired connection for communication of digital messages among vehicle devices, with each message including one or more device addresses	Wired connection for transferring data to and from vehicle devices

The term "data communication bus" is used in the '876 (Doc. 39-1) and '885 Patents (Doc. 39-2). The term "vehicle data communications bus" is used in the '727 Patent. (Doc. 39-3). The term "vehicle data bus" is found in the '278 Patent. (Doc. 39-4). Calamp asks the Court to construe these three sets of terms appearing in patents '876, '885, '727, and '278, arguing that construction is necessary to assist the jury.

Calamp contends that in all of the patents-in-suit, the data communication bus is described as a wired connection for transferring data to and from vehicle devices. (Doc. 39, p. 11). Calamp cites the '876 Patent specification which states, "Digital messages

are communicated to all modules over the data communications bus." (Doc. 39-1, 2:18–19). Calamp further refers the Court to the '885 Patent specification language which is identical to the '876 language. (Doc. 39-2, 2:18–19). Calamp also quotes the '278 Patent, which provides, "This and other objects, features, and advantages in accordance with the present invention are provided by a multi-vehicle compatible tracking unit for a vehicle comprising a *vehicle data bus extending throughout the vehicle*." (Doc. 39-4, 2:50–53) (emphasis added). Finally, Calamp cites to the '727 Patent which similarly provides for a "vehicle data bus extending throughout the vehicle."[6] (Doc. 39-3, 2:44–45).

Omega submits that Calamp incorrectly seeks a construction which requires data transfer both to and from vehicle devices, whereas the patents-in-suit do not require two-way commands transferred on the bus. (Doc. 40, p. 4). Omega directs the Court to the plain language of claim 1 of the '876 Patent which provides, in pertinent part:

> 1. A control system for a vehicle comprising a data communications bus and at least one vehicle device connected to the data communications bus, the control system comprising:
>
> . . . .
>
> a multi-vehicle compatible controller at the vehicle and cooperating with said transmitter and receiver, said multi-vehicle compatible controller *generating at least one set of command signals on the data communications bus* for at least one vehicle device . . . .

(Doc. 39-1, 11:30–42) (emphasis added). Omega reasons that the plain language of claim 1 of the '876 Patent instructs the reader that at least one signal is generated, or sent, to at least one vehicle device. (Doc. 40, p. 5). The use of the term "generating" indicates

[6] The Court notes that none of the language cited by Calamp contained within the various patents-in-suit requires two-way communication of messages along the bus.

sending a signal and does not require a signal to be both sent to a device and received from a device.

When one considers the background to the invention, as stated in the '876 Patent, it is clear that a signal may be generated or sent along the bus to a vehicle device without a return signal being sent from the device to the bus. For example, the background to the '876 Patent states that an "alarm indication may typically be a flashing of the lights and/or the sounding of the vehicle horn or a siren." (Doc. 39-1, 1:35–37). Such an alarm may consist of a signal being generated and sent to the device without the device sending a return signal along the bus. One skilled in the art need only read the description of preferred embodiments for the '885 Patent to understand that the data communications bus controls complex and simple functions within the vehicle. "In other words, the vehicle devices connected to the data bus may be considered to be relatively simple devices, such as sensors, or more complicated devices with some internal processing, such as may generally be considered as controllers." (Doc. 39-2, 6:48–52). The simple devices, such as sensors, receive a signal generated and sent to the device without sending a reply to the controller. Accordingly, giving the words of the claim(s) their ordinary and customary meaning that the term would have to those skilled in the art, and taking the term within the context of the entire patent, the terms "data communications bus," "vehicle data communications bus," and "vehicle data bus" do not envision or require the transference of data "to and from" vehicle devices.

Calamp next proposes that Omega's insertion of device "addresses" in their proposed definition of the above terms is not supported by the patents-in-suit. (Doc. 39, p. 12). Calamp argues that the term "address" is an optional feature in the systems

described in the '876 and '885 Patents. (*Id.*). Calamp cites the '885 Patent specification to support this interpretation, which reads, "Each message *may* have one or more addresses associated with it so that the devices can recognize which messages to ignore and which messages to respond to or read." (Doc. 39-2, 2:20–22) (emphasis added). However, the Court finds that this quote is taken out of context. The context is found in the following excerpt:

> With multiplexing technology, the various electronic modules or devices may be linked by a single signal wire in a bus also containing a power wire, and one or more ground wires. Digital messages are communicated to all modules over the data communications bus. Each message may have one or more addresses associated with it so that the devices can recognize which message to ignore and which message to respond to or read.

(*Id.* at 2:16–22). Therefore, the word "may" cannot reasonably be interpreted to suggest that associating an address with a message is optional. Rather, each message will have at least one and perhaps multiple addresses associated with it, depending on the number of electronic modules or devices linked by the command bus. The Court finds that the presence of at least one address is fundamental to the functioning of the invention.[7]

Based on the foregoing, the Court construes the term "data communications bus" as used in the '876 (Doc. 39-1) and '885 Patents (Doc. 39-2), "vehicle data communications bus" as used in the '727 Patent (Doc. 39-3), and "vehicle data bus" as found in the '278 Patent, collectively "data communication bus" as follows: **"wired connection for communication of digital messages among vehicle devices, with each message including one or more device addresses."**

[7] While the '727 and '278 Patents do not specifically reference an address, one skilled in the art at the time of the invention would understand a vehicle data communications bus to require one or more addresses in order to control or read a device.

C. The '876, '885, '727, '278 Patent Term: "Vehicle Device"

Claim Term	OMEGA's Construction	CALAMP's Construction
Vehicle device	No construction needed	Electrical or electronic component in a vehicle that can be controlled and/or the status thereof read

Calamp contends the term "vehicle device" should be construed by the Court because the term is broad and susceptible to many meanings. (Doc. 39, p. 13). The parties agree that claim terms should be construed by the Court when it is necessary to resolve a genuine and material legal dispute between the parties or when necessary to aid the jury in understanding claim terms. Calamp's proposed construction of the term "vehicle device" is taken verbatim from the '876 and '885 Patents, with closely analogous language found in the '727 and '278 Patents. (*Id.*). Since Calamp's proposed construction of "vehicle device" is taken from the patents-in-suit, the Court need not construe the claim term. The definition is not in dispute, nor is additional construction necessary to aid the jury in understanding the claim term. Calamp's request to construe the term "vehicle device" is denied.

D. The '876 Patent Term: "Command Signal"

Claim Term	OMEGA's Construction	CALAMP's Construction
Command signal	*No construction needed; alternatively, it should be defined as follows:* Signal generated on the data communications	Signal generated on the data communications bus for operating a vehicle device to cause a desired function to be performed at the vehicle

	bus for operating a vehicle device	

The term "command signal" appears in claims of the '876 Patent. Calamp contends the '876 Patent, when read in its entirety, supports construction of the term "command signal" as requiring that the signal causes a desired function to be performed. (Doc. 39, p. 14). Calamp notes that the specifications include the following language: "will cause an operation or response from the vehicle device." (Doc. 39-1, 3:16–20). Defendant quotes portions of the specifications which state command signals may be "for operating" a specific vehicle device. (*Id.* at 3:39, 41–45; 5:45–49).

Omega submits that claim 1 of the '876 Patent clearly states that not every command signal will cause an operation or response from a vehicle device:

> 1. A control system for a vehicle comprising a data communications bus and at least one vehicle device connected to the data communications bus, the control system comprising:
>
> . . . .
>
> a multi-vehicle compatible controller at the vehicle and cooperating with said transmitter and receiver, said multi-vehicle compatible controller generating at least one set of command signals on the data communications bus for at least one vehicle device, the at least one set of command signals comprising at least *one working and at least one non-working command signal* for a given vehicle to thereby provide command compatibility with a plurality of different vehicles.

(*Id.* at 11:30–48) (emphasis added).

The claim makes it clear that the control system uses a working and non-working command signal because "multiple signals or codes can be generated on the data communications bus, and only that code for the *given vehicle and device* will cause an operation or response from the vehicle device." (*Id.* at 3:17–20) (emphasis added). Further, "an object of the invention [is] to provide a control system and related method for

a vehicle comprising a data communications bus and at least one vehicle device connected to the data communications bus, and wherein the system is *adapted to operate with different vehicles*." (*Id.* at 2:66–3:4) (emphasis added). Since the system is designed to operate with a variety of vehicle platforms, not every signal generated on the data communications bus will cause a function to be performed. In order for a signal to cause a function to be performed, the signal must be received by a device contained within a compatible vehicle platform.[8] Accordingly, Calamp's proposed construction incorrectly includes within the definition of the "command signal" the requirement that a signal generated on the data communication bus must always cause a desired function to be performed.

Based on the foregoing, the Court construes "command signal" as follows: **"signal generated on the data communications bus for operating a vehicle device."**

E. The '876 and '885 Patent Term: "Device Code"

Claim Term	OMEGA's Construction	CALAMP's Construction
Device codes	*No construction needed; alternatively, it should be defined as follows:* Signal to or from a vehicle device	Signal from a vehicle device read on the vehicle bus. *Amended at the Markman hearing as follows:* Signal from a vehicle device read on the vehicle bus and/or stored in the controller

Calamp asserts that the '876 and '885 Patents describe "device code" as a signal from a vehicle device that is read on the vehicle bus. (Doc. 39, p. 15). Calamp's

[8] "In other words, multiple signals or codes can be generated on the data communications bus, and only that code for the given vehicle will cause an operation or response from the vehicle device." (Doc. 39-2, 7:31–34).

proposed construction is based on select language from the '876 and '885 Patents. For example, both the '876 and '885 Patents discuss "reading a device code *from* the data communications bus." (Doc. 39-1, 9:22–23; Doc. 39-2, 3:12-13) (emphasis added). The complete text of the specification is, as always, helpful in construing the claim terms:

> More particularly, the multi-vehicle compatible controller is for storing a set of device codes for a given vehicle device for a plurality of different vehicles, for reading a device code from the data communications bus, and for determining a match between a read device code and the stored device codes to thereby provide compatibility with a plurality of different vehicles.

(Doc. 39-1, 9:19–25).

The '885 Patent further elaborates upon the manner in which the multi-vehicle compatible controller functions:

> Moreover, the multi-vehicle compatible controller is also for storing a set of device codes for a given vehicle device for a plurality of different vehicles, for reading a device code from the data communications bus, and for determining a match between a read device code and the stored device codes to thereby provide compatibility with a plurality of different vehicles.

(Doc. 39-2, 3:10–16). Both of these patents clearly state that when a device code is read, it is read "from" the data communications bus and not "on" the vehicle bus. To the extent Calamp's proposed construction describes the signal from the vehicle device as being read "on" the vehicle bus, the claims and specifications of the pertinent patents contradict this interpretation.

The next issue is whether the device codes travel "from" a vehicle device, as Calamp contends, or travels "to and from" a vehicle device, as Omega suggests. As previously discussed, the relevant specifications state: "[T]he multi-vehicle compatible controller is also for storing a set of device codes for a given vehicle device for a plurality

of different vehicles, for reading a device code from the data communications bus [and determining whether a match exists] . . . ." (*Id.*). The specifications, therefore, certainly state that device codes, or signals, are stored on the multi-vehicle compatible controller, and codes received from the data communications bus can be read to determine if the stored code matches the code received from the data communications bus. The claims and specifications do not describe any scenario wherein the device code is a signal sent "to" a vehicle device, which appears to be accomplished by command signals. Omega does not direct the Court to any intrinsic evidence to support its contention that a device code, or signal, travels both to and from a vehicle device.

Based on the foregoing, the Court agrees with Calamp that the claims and specifications of the pertinent patents-in-suit describe "device codes" as **signal from a vehicle device.** The Court, however, declines to adopt Calamp's construction to the extent it describes device codes as being "read on the vehicle bus." The description proffered by Calamp is contradicted by the clear wording of the claims and specifications, which state the signal or code is read "from" the bus and not "on" the bus. Additionally, Calamps's construction focuses on the signal being "read" and fails to address the storage of device codes and the comparison of stored codes to codes received from the communications bus. The Court finds it is not necessary to include a partial description of how device codes are utilized by the multi-vehicle compatible controller, because the ordinary meaning of the claim language relative to the uses made of the device codes is readily apparent to those skilled in the art.

Thus, the term "device codes" is construed by the Court to mean: **"signal from a vehicle device."**

F. The '885 Patent Term: "Function"

Claim Term	OMEGA's Construction	CALAMP's Construction
Function	*No construction needed; alternatively, it should be defined as follows:* An operation of a vehicle device	An operation of a vehicle device, such as remote starting the engine, remotely unlocking the vehicle doors, or changing the mode of a security system between armed and disarmed

Calamp contends that the definition of the term "function" found in claim 24 of the '885 patent should be limited to the three embodiments identified in Calamp's proposed claim construction. (Doc. 39, p. 17). Omega asserts the term "function" does not require construction because the ordinary meaning of the claim language is readily apparent to persons of ordinary skill in the art and even to lay judges. (Doc. 40, pp. 9–10). The Court agrees that the claim language is sufficiently clear and unambiguous to enable an individual of ordinary skill in the art, as well as lay judges, to apply the language in the context of this litigation.

The patent states the invention may be embodied in "many different forms and should not be construed as limited to the illustrated embodiments set forth herein." (Doc. 39-2, 4:63–65). The term "function" is self-evident from the context of the list of embodiments:

> The second transmitter/receiver pair may be used to cause a *desired function* to be performed at the vehicle, such as remote starting the engine, remotely unlocking the vehicle doors, or changing the mode of a security system between armed and disarmed modes, for example. Many other similar applications are contemplated by the present invention as will be appreciated by those skilled in the art.

(*Id.* at 5:24–31) (emphasis added). Clearly, a function is the operation of one of the vehicle devices. Accordingly, the Court declines to construe this term.

G. The '727 Patent Term: "Remote Vehicle Speed Exceeded Notification"

Claim Term	OMEGA's Construction	CALAMP's Construction
Remote vehicle speed exceeded notification	*No construction needed; alternatively, it should be defined as follows:* Notification sent when a vehicle speed exceeds a speed threshold for a first time period	A message sent from a vehicle indicating that the vehicle speed has exceeded a particular speed

The term "remote vehicle speed exceeded notification" is found in the '727 Patent. Calamp proposes a construction of the term which emphasizes that the message indicating that a preset speed has been exceeded is sent "from" the vehicle. (Doc. 39, p. 18). Calamp asserts that the patent, and Omega's proposed construction, fail to state that the message originates from within the vehicle. (*Id.*). Omega argues that no construction is required because the ordinary meaning of the claim language is readily apparent. (Do. 40, p. 11). The Court agrees with Omega and finds that the term "remote vehicle speed exceeded notification" does not require construction or clarification.

Claim 1 of the '727 Patent clearly identifies that the speed exceeded notification device includes "at least one vehicle device *generating* data related to vehicle speed." (Doc. 39-3, 7:6–7) (emphasis added). Therefore, the message is clearly sent from the vehicle, where the vehicle devices reside. The claim language further states that the

device determines "when a vehicle speed exceeds a speed threshold *for the first time period*" and sends a remote vehicle speed exceeded notification. (*Id.*) (emphasis added). That is, a device internal to the vehicle sends the notification outside of the vehicle. To the extent the patent provides for multiple speed exceeded notifications being sent from the vehicle, the claim language clearly addresses the manner in which this is accomplished. (*Id.* at 7:18–22, 27–29).

Based on the foregoing, the Court declines Calamp's request for construction of the term "remote vehicle speed exceeded notification."

H. The '278 Patent Term: "Downloading Interface"

Claim Term	OMEGA's Construction	CALAMP's Construction
Downloading interface	No construction needed	Connection that can receive data

Calamp asserts that the term "downloading interface" is unclear and may result in jurors concluding the term involves a software interface for downloading or some other type of interface. (Doc. 39, p. 19). Calamp contends that the patent describes the downloading interface as "hardware" or a connection to the tracking unit. (*Id.*). However, the plain language of the patent describes downloading interface more broadly. The patent provides the following variety of methods for data to be received from the downloading interface:

> The downloading interface may comprise either a wired or wireless signal downloading interface. The wired signal downloading interface may comprise a connector for temporary connection to a downloading device, for example. The wireless signal downloading interface may include a wireless receiver for temporary connection

> to a downloading device . . . . The downloading interface may also be for permitting downloading of at least one programming instruction for the multi-vehicle compatible controller, in some embodiments.

(Doc. 39-4, 3:4–16). The summary of the invention, cited above, tracks the language found in claims 1, 2, 4, and 8. (*Id.* at 25:63–26:39).

The ordinary meaning of "download interface" is readily apparent to persons of ordinary skill in the art. To the extent one may desire additional context for the term "downloading interface," that context is found in the background and summary of the invention. The background statement provides, "For a company with hired drivers, it may be desirable to know the driver's whereabouts during the course of the day. Similarly, a rental car agency or other fleet operator, for example, may wish to know the whereabouts of its fleet of vehicles." (*Id.* at 1:37–41). To facilitate these objectives, the summary of the invention informs the reader that, "[t]he tracking unit may also include a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code . . . ." (*Id.* at 2:63–66). The embodiment section of the patent further educates the reader that data received via the downloading interface may provide a number of pieces of information regarding the vehicle, including whether the vehicle is being moved by an unauthorized driver, whether the vehicle is being broken into, whether the vehicle is being driven in excess of an authorized speed, and the like. (*Id.* at 11:36–12:10).

Accordingly, the ordinary meaning of the language of the patent, including the term downloading interface, instructs the reader, including lay judges and jurors, of the type of data transmitted from the vehicle device and the manner of its transmission: wired,

wireless, and for permitting downloading of at least one programming instruction, for example. A downloading interface is, therefore, not limited to a hardwired connection.

Based on the foregoing, the Court declines to construe the term "downloading interface."

I. The '278 Patent Term: "Enabling Data"

Claim Term	OMEGA's Construction	CALAMP's Construction
Enabling data	*No construction needed; alternatively, it should be defined as follows:* Data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller	A vehicle device code or codes, and instruction to select a code or codes, or the data or sequence to allow the controller to generate a vehicle device code or codes

The term "enabling data" appears in the '278 Patent. (Doc. 39-4). Calamp avers that the term lacks any common meaning or specific structure to one of ordinary skill in the art and should be construed. (Doc. 39, p. 20). Calamp acknowledges the term enabling data is referenced in several places, but submits the term is not defined other than at column 24, lines 8–12 of the '278 Patent. (*Id.*) The specification provides, in pertinent part:

> The multi-vehicle compatible tracking unit also illustratively includes a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller. The enabling data may be the vehicle device code or codes, an instruction to select a code or codes from among those already stored, or the data or sequence

> to allow the controller to generate the vehicle device code or codes, for example,

(Doc. 39-4, 24:4–12). Other references to "enabling data" include references to figures within the patent, stating, "Enabling data related to at least one corresponding vehicle device code for use by the multi-vehicle compatible controller is downloaded via a downloading interface." (*Id.* at 25:14–16).

Calamp suggests that any construction of enabling data should be limited to claim 1 of the '278 Patent (Doc. 39-4, 26:13–15), which provides, in part, "[E]nabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller." (Doc. 40, p. 13). Omega objects to Calamp's inclusion of some of the preferred embodiments into their proposed definition, citing *Northern Telecom Ltd. v. Samsung Elecs. Co.*, 215 F.3d 1281, 1293 (Fed. Cir. 2000) ("This court consistently declines to construe claim terms according to the preferred embodiment."). The Court agrees that Calamp's proffered construction improperly restricts or narrows the scope of this term.

Based on the foregoing, the Court construes the term "enabling data" as follows: **data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.**

J. The '278 Patent Term: "Programming Instruction"

Claim Term	OMEGA's Construction	CALAMP's Construction
Programming instructions	No construction needed	Code which instructs the controller to perform an operation

The term "programming instructions" is found in the '278 Patent. (Doc. 39-4). Calamp submits that this term should be construed by the Court because the term is susceptible to multiple meanings. (Doc. 39, p. 21). Omega advised the Court during the *Markman* hearing that it does not object to Calamp's proposed construction. The Court therefore adopts Calamp's proposed construction.

V. CONCLUSION

The Court adopts the following constructions:

CLAIM TERM	AGREED CONSTRUCTION
Controller	Electronic circuitry that performs one or more control functions.
Multi-vehicle compatible controller	Electronic circuitry that performs one or more control functions, and can operate with more than one vehicle.

[ORDER CONTINUES ON FOLLOWING PAGE]

CLAIM TERM	COURT'S CONSTRUCTION
Transmitter	Radio frequency transmitter.
Receiver	Radio frequency receiver.
Data communication bus/ vehicle data communications bus/ vehicle data bus	Wired connection for communication of digital messages among vehicle devices, with each message including one or more device addresses.
Vehicle device	Plain meaning
Command signal	Signal generated on the data communications bus for operating a vehicle device.
Device codes	Signal from a vehicle device.
Function	Plain meaning
Remote vehicle speed exceeded notification	Plain meaning
Downloading interface	Plain meaning
Enabling data	Data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.
Programming instructions	Code which instructs the controller to perform an operation.

DONE AND ORDERED in Orlando, Florida on February 20, 2015.

PAUL G. BYRON
UNITED STATES DISTRICT JUDGE

Copies furnished to:

Counsel of Record

APPENDIX A

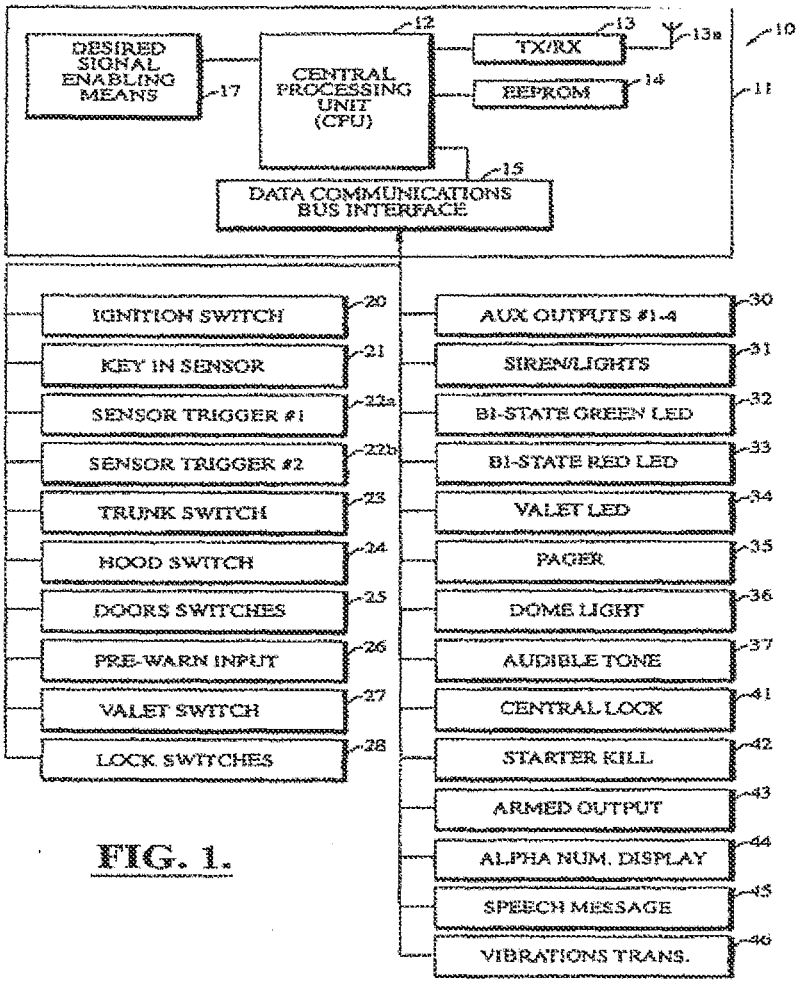


FIG. 1.

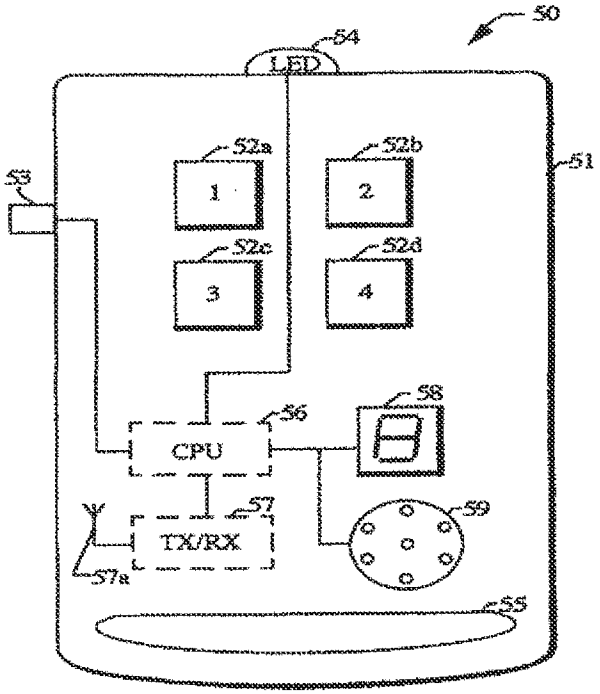

50
54
LED
52a
1
52b
2
51
53
52c
3
52d
4
58
56
CPU
57
TX/RX
57a
59
55

FIG. 2.

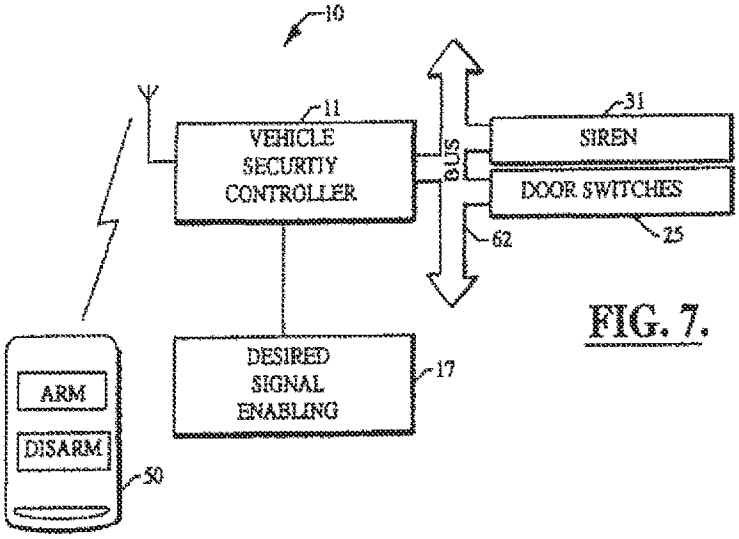

10
11
VEHICLE
SECURITY
CONTROLLER
BUS
31
SIREN
DOOR SWITCHES
25
62
DESIRED
SIGNAL
ENABLING
17
ARM
DISARM
50

FIG. 7.

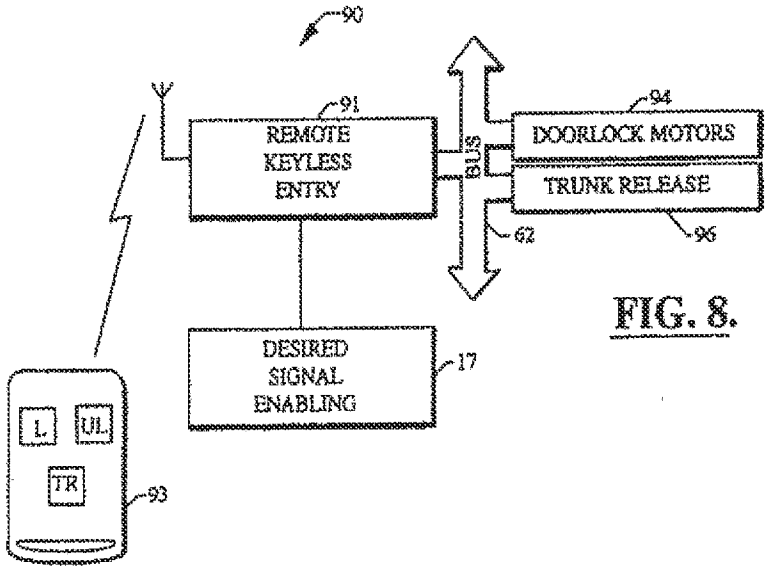

90
91
REMOTE KEYLESS ENTRY
BUS
94
DOORLOCK MOTORS
TRUNK RELEASE
62
96
DESIRED SIGNAL ENABLING
17
L
UL
TR
93

FIG. 8.

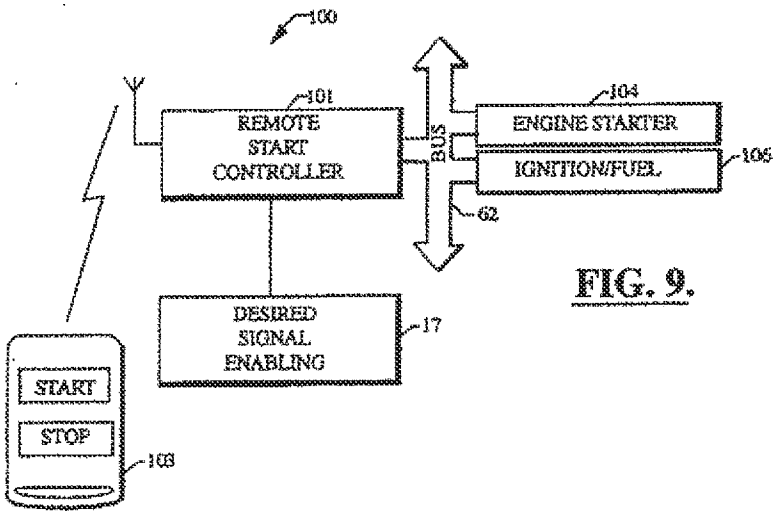

100
101
REMOTE START CONTROLLER
BUS
104
ENGINE STARTER
IGNITION/FUEL
106
62
DESIRED SIGNAL ENABLING
17
START
STOP
108

FIG. 9.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/773,272	07/03/2007	Kenneth E. Flick	58106CIP1	1046

7590 01/05/2011

CHRISTOPHER F. REGAN, ESQUIRE
ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST, P.A.
P.O. Box 3791
Orlando, FL 32802-3791

EXAMINER	
NGUYEN, CUONG H	
ART UNIT	PAPER NUMBER
3661	

MAIL DATE	DELIVERY MODE
01/05/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	11/773,272	FLICK, KENNETH E.	
	Examiner	Art Unit	
	CUONG H. NGUYEN	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 October 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. This Office Action is the answer to a communication received on 10/22/2010.

2. Claims 1-22 are pending.

Response

3. Previous objections and rejections are withdrawn. New grounds of obvious rejections are submitted herein.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-21, are rejected under 35 U.S.C. 103(a) as being unpatentable over Monroe (US Pat. 6,253,064 B1), in view of Brinkmeyer et al. (US Pat. 5,940,007).

A. As to independent claims 1, 4-10, 14-16, and 18-21: Monroe suggests a system to tracking and monitoring different kinds of vehicles (see Monroe, Fig. 1, refs. 10, 10a, and 10b).

Brinkmeyer et al., also teach a vehicle control system comprising:

- a tracking unit and a function unit cooperating therewith, said tracking unit comprising a vehicle position determining device (see Monroe, Fig. 4a-4b; see also Brinkmeyer et al, col. 5, lines 6-16) "... vehicle is equipped with an antitheft system having a car telephone *and a locating system, such as the Global Positioning System").*

- a wireless communications device, and a tracking controller configured cooperate with said vehicle position determining device and said wireless communications device (see

Monroe, Fig. 4a-4b; see Brinkmeyer et al., Fig. 1); said function unit comprising at least one uniquely coded transmitter to be carried by a user (see Monroe, Fig. 4a-4b "wireless transceiver"; this is also taught in this prior art since remote controlling a car requires a uniquely coded command in order for that command to be received and executed).

Monroe and Brinkmeyer et al., teach that a device can read/write/program/download from/to another device by remotely using proper codes/instructions/ID (see Monroe, Fig. 4a-4b with "transceivers"' capabilities; as in pending claims 6-9 and 19-22, see Brinkmeyer et al, Fig.1).

Brinkmeyer et al., (col. 4, lines 22-39, and lines 52-65) clearly disclose: "The transmitter/receiver 4a in the vehicle 4 is connected with the other components of the electric system of the vehicle, via a data bus system ", and "the vehicle-side transmitter/receiver 4a transmits the corresponding control commands via the data bus system to the respective vehicle target component "; i.e. a vehicle data bus has been taught by Brinkmeyer et al.

Brinkmeyer et al., do not disclose that a receiver at the vehicle for receiving signals from said a uniquely coded transmitter, and a function controller at the vehicle and connected to said receiver for learning (i.e., pending claim is about signal transmitting/receiving between vehicles).

However, similar functions as claimed are taught by Monroe, and Brinkmeyer et al., with a wireless receiver I/F - (not necessary disclosing that a receiver and a transmitter must be from different vehicles).

Since the pending claims are physical structures/units, Monroe and Brinkmeyer et al., system obviously performs claimed devices/components.

As for accepting a command – a particular definition for "learning" a uniquely coded transmitter to permit control of a vehicle function by the user (see Brinkmeyer et al., Figs. 4A, 4C, col. 2 lines 23-42, "... *activating a* learn mode, in which they can receive the new authorization code from the newly programmed remote control unit by way of a special antenna, if the remote control unit is brought into the direct vicinity and is caused to send the new authorization code.. ".

Brinkmeyer et al., also do not disclose that an alert function would acknowledge a user for accepting a new unique code in "said function controller configured to cooperate with said wireless communications device of said tracking unit to send an alert indication *of whether at least one new uniquely coded transmitter has been learned".*

However, this action is obvious for a remote device to acknowledge a user/operator wirelessly that it starts to accept a new unique code (e.g., from a control tower) – also this is a clear example of wirelessly programming a garage door to accept a specific code (as taught by Brinkmeyer et al).

It would have been obvious to one of ordinary in the art at the time this invention was made to combine both Monroe and Brinkmeyer et al.'s systems by clearly disclosing that a communication between related vehicles, an extra feature to alert/drawing attentions of a user (by available voice/sound/image/text generator) that a new unique code would be effective from now on as a reminder to that user.

B. As per claims 2-3, and 13: The rationales and reference for a rejection of claim 1 are incorporated.

It is submitted that downloading/(sending signals) by using a (temporary) directed wire (connecting directly to an I/F) has been quite well-known.

C. As per claim 10: The rationales and reference for a rejection of claim 1 are incorporated.

It is submitted that Brinkmeyer et al., taught about a garage door opener (e.g., a claimed "remote keyless entry function").

D. As per claim 11: The rationales and reference for a rejection of claim 1 are incorporated.

It is submitted that Monroe Figs. 4a-4b, and Brinkmeyer et al., taught about using a GPS receiver (see Brinkmeyer et al., col. 5 line 9).

E. As per claim 12: The rationales and reference for a rejection of claim 1 are incorporated.

It is submitted that Monroe and Brinkmeyer et al., taught about a housing to contain a GPS, a wireless communication device, a controller, and communication I/F (see Brinkmeyer et al., Figs. 1-2).

F. As per claim 17: The rationales and reference for a rejection of claim 1 are incorporated.

It is submitted that Monroe and Brinkmeyer et al., taught about wireless communication devices: a remote transmitter, and communication I/F to remotely control a device/component (see Brinkmeyer et al., Fig. 3 "the garage door opener").

Conclusion

5. Pending claims are rejected.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CUONG H. NGUYEN whose telephone number is 571-272-6759. (email address is cuong.nguyen@uspto.gov). The examiner can normally be

reached on 9:30 am – 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THOMAS G. BLACK can be reached on 571-272-6956. The Rightfax number for the organization where this application is assigned is 571-273-6956.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Please provide support, with page and line numbers, for any amended or new claim in an effort to help advance prosecution; otherwise any new claim language that is introduced in an amended or new claim may be considered as new matter, especially if the Application is a Jumbo Application.

/CUONG H. NGUYEN/
Primary Examiner
Art Unit 3661

Notice of References Cited	Application/Control No. 11/773,272	Applicant(s)/Patent Under Reexamination FLICK, KENNETH E.	
	Examiner CUONG H. NGUYEN	Art Unit 3661	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2006/0187026	08-2006	Kochis, Gary	340/539.13
*	B	US-7,196,621	03-2007	Kochis, Gary	340/539.13
*	C	US-7,366,892	04-2008	Spaur et al.	713/151
*	D	US-7,085,775	08-2006	Short et al.	1/1
*	E	US-2002/0188702	12-2002	Short et al.	709/220
*	F	US-6,611,755	08-2003	Coffee et al.	701/213
*	G	US-6,657,587	12-2003	Mohan, Paul L.	342/357.75
*	H	US-6,859,831	02-2005	Gelvin et al.	709/224
*	I	US-2004/0073440	04-2004	Garbers et al.	705/001
*	J	US-2004/0066330	04-2004	Knockeart et al.	342/357.07
*	K	US-6,628,233	09-2003	Knockeart et al.	342/357.31
*	L	US-6,253,064	06-2001	Monroe, David A.	455/66.1
*	M	US-2002/0152053	10-2002	Roy et al.	702/185

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent under Reexamination	
11773272	11/773,272	FLICK, KENNETH E.	
	Examiner	Art Unit	
	CUONG H. NGUYEN	3661	

SEARCHED			
Class	Subclass	Date	Examiner

INTERFERENCE SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES (INCLUDING SEARCH STRATEGY)		
	DATE	EXMR
Updated west/derwent	1/2/2010	CHN

Index of Claims

11773272

Application/Control No.	Applicant(s)/Patent under Reexamination
11/773,272	FLICK, KENNETH E.
Examiner	**Art Unit**
CUONG H. NGUYEN	3661

√	Rejected	–	(Through numeral) Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

Claim		Date							
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Refine Search

Search Results

Terms	Documents
L4 and (databus or "can bus" or "data bus")	3

Database: US Pre-Grant Publication Full-Text Database; US Patents Full-Text Database; US Patents OCR Backfile; EPO Abstracts Database; JPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletin Database

Search Type: (•) Prior Art ( ) Interference

Search: L7

Refine Search | Recall Text | Clear | Interrupt

Search History

DATE: Sunday, January 02, 2011 Purge Queries | Printable Copy | Create Case

Set Name Side by Side	Query	Hit Count	Set Name Result Set	Set Name Grid
Prior Art Searches				
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR			
L7	L4 and (databus or "can bus" or "data bus")	3	L7	L7
L6	L5 and l4	5	L6	L6
L5	L3 and (vehicles with controller with (multi$ or many))	24	L5	L5
L4	L3 and (download$ with (code$ or id$))	12	L4	L4
L3	L2 or l1	113	L3	L3
L2	@pd<=20050309 and (track$ with (multi$ or many$) with "vehicles") and ("can" with "bus") and (id$ or code)	66	L2	L2
L1	@ad<=20050309 and (track$ with (multi$ or many$) with "vehicles") and ("can" with "bus") and (id$ or code)	110	L1	L1

END OF SEARCH HISTORY

Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS
First Named Inventor/Applicant Name:	Kenneth E. Flick
Filer:	Mark B. Garred/Andrea Levine
Attorney Docket Number:	CAAMP-001X

Filed as Small Entity

Filing Fees for ex parte reexam

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
EX PARTE REEXAMINATION (1.510(A)) NON-STREAMLINED	2812	1	6300	6300
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**6300**

Electronic Acknowledgement Receipt

EFS ID:	41892447
Application Number:	90014675
International Application Number:	
Confirmation Number:	7247
Title of Invention:	VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS
First Named Inventor/Applicant Name:	Kenneth E. Flick
Customer Number:	7663
Filer:	Mark B. Garred/Andrea Levine
Filer Authorized By:	Mark B. Garred
Attorney Docket Number:	CAAMP-001X
Receipt Date:	10-FEB-2021
Filing Date:	
Time Stamp:	16:20:32
Application Type:	Reexam (Third Party)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$6300
RAM confirmation Number	E202120G20562283
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Appeal Brief - Third Party Requester	Request_for_Ex_Parte_Reexamination.pdf	370757 b617eb2b6ce192a67ce1617636a87eed7b113ea1	no	46
Warnings:					
Information:					
2	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	GarredDeclaration.pdf	42150 4fb0b8102b2456e848265d4ef5070b912b6b540b	no	3
Warnings:					
Information:					
3	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	Exhibit_A_US8032278.pdf	2882575 e02a3ed72227103c09439d9e3efb02684e56f06e	no	29
Warnings:					
Information:					
4	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	Exhibit_B1_US6611740B2_Lowrey.pdf	325596 185c2922a1c609753d79605287267c0f82759846	no	19
Warnings:					
Information:					
5	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	Exhibit_B2_US6636790B1_Lightner.pdf	189948 42a3dbc127a5776768f53c80c26f5f14f5e9f5e1	no	12
Warnings:					
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6	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	Exhibit_C_2016-05-06_Non-FinalRejection.pdf	2125928 461171cd7869671272212376fffb97ec3c2c82c1	no	23
Warnings:					
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7	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	Exhibit_D_2016-12-15_DeterminationReexamination.pdf	6015110 b584ac51c40e0868146aa4df2809cc36edc8cf67	no	55
Warnings:					
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8	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	Exhibit_E_2019-07-10_DeterminationReexamination.pdf	10097399 52d115aba1d943ba2e05999892db6ce6d1bc54b2	no	85
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9	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	Exhibit_F_DecisionAppeal.pdf	1849531 3a35b15a852937b0668a7b17755a18ee4bdfce54	no	17
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10	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	Exhibit_G_Order.pdf	2839670 e083f9274e916c1f8c6b9c52a8d77f78b7dffd0d	no	28
Warnings:					
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11	Reexam - Affidavit/Decl/Exhibit Filed by 3rd Party	Exhibit_H_2011-01-05Non-FinalRejection.pdf	402068 2ea7ea9d707866912f77a1950354fcbd67fa9bc7	no	11
Warnings:					
Information:					
12	Fee Worksheet (SB06)	fee-info.pdf	30180 5c312f9ba7d6c062900571b0889e8fc4fee784e2	no	2
Warnings:					
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		Total Files Size (in bytes):	27170912		

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	Kenneth E. Flick	Confirmation No.	TBD
Serial No.:	11/773,272	Art Unit:	TBD
Filed:	July 3, 2007	Examiner:	TBD
For:	VEHICLE TRACKING UNIT WITH DOWNLOADABLE CODES AND ASSOCIATED METHODS		

REQUEST FOR *EX PARTE* REEXAMINATION OF U.S. PATENT NO. 8,032,278

Mail Stop *Ex Parte* Reexam
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

Pursuant to 35 U.S.C. § 302 and 37 C.F.R. § 1.501 et seq., *ex parte* reexamination is requested for claims 1-22 of U.S. Patent No. 8,032,278 ("the '278 patent"). The '278 patent is attached as Exhibit A.

The '278 patent issued on October 4, 2011 from U.S. Patent Application Serial No. 11/773,272 ("the '272 application"), which was filed on July 3, 2007. The '278 patent is a continuation-in-part of U.S. Patent Application Serial No. 11/076,259, filed on March 9, 2005, now U.S. Patent No. 7,720,597, which itself claims priority back to May 17, 2000 by way of a series of non-provisional and provisional applications. The '278 patent has been the subject of four prior reexaminations: Reexamination Control Nos. 90/013,587, 90/013,851, 90/014,309, and 90/014,419.

Recently, additional prior art that was not previously considered by the United States Patent and Trademark Office ("USPTO") has been identified that is believed to raise a substantial new question of patentability. Namely, U.S. Patent No. 6,611,740 ("the Lowrey

reference") is not of record and appears to be pertinent to the patented claims as set forth in detail below. The Lowrey reference is attached as Exhibit B1.

I. Identification of Claims for which Reexamination is Requested

In accordance with 37 C.F.R. § 1.501 et seq., reexamination of claims 1-22 of the '278 patent is requested in view of the following reference:

- U.S. Patent No. 6,611,740, corresponding to U.S. Application Serial No. 09/808,690, filed March 14, 2001 ("the Lowrey reference").

II. Statement Pointing Out Each Substantial New Question of Patentability

Reexamination of claims 1-22 is requested on the following grounds:

(1) there is a substantial new question of patentability as to whether claims 1, 2, and 4-22 are anticipated by the Lowrey reference under pre-AIA 35 U.S.C. § 102(b); and

(2) there is a substantial new question of patentability as to whether claims 1-22 are obvious over the Lowrey reference under 35 U.S.C. § 103.

Substantial new questions of patentability exist as to whether the Lowrey reference, which was not considered during the examination of the '272 application, anticipates or renders obvious any of the claims of the '278 patent that issued therefrom. In particular, substantial new questions of patentability exist as to whether the Lowrey reference anticipates claims 1, 2, and 4-22 under pre-AIA 35 U.S.C. § 102(b) and whether the Lowrey reference renders claims 1-22 obvious under 35 U.S.C. § 103. The Lowrey reference has a publication date of August 26, 2003, predating the July 3, 2007 effective filing date of the '272 application by more than a year.[1] The Lowrey reference is thus prior art under at least pre-AIA 35 U.S.C. § 102(b).

The Lowrey reference relates to "a system for monitoring a vehicle that includes a wireless appliance in electrical contact with an in-vehicle computer," the wireless appliance

[1] The USPTO has previously determined that the priority date of the '278 patent is July 3, 2007. *See* Reexamination Control No. 90/013,587, May 6, 2016 Non-Final Rejection (attached as Exhibit C), p. 2: "The Flick '278 Patent is a continuation in part of application 11/076,259. This parent application did not disclose nor claim the multi-vehicle capability and the bus extending throughout the vehicle as described and claimed in Flick '278. Accordingly, the earliest effective filing date for Flick '278 is July, 3, 2007." Subsequently, the USPTO reaffirmed this priority date. *See* Reexamination Control No. 90/013,851, December 15, 2016 Determination (attached as Exhibit D), p. 5: "The earliest effective filing date the '278 patent is entitled to is July 3, 2007 (see paragraph 2 of the 5/6/2016 non-final rejection of the 90/013,587 discussed *infra*)." *See also* Reexamination Control No. 90/014,309, July 10, 2019 Determination (attached as Exhibit E), p. 4.

featuring "1) a data-collection component that supports communication software that collects diagnostic data from the computer; and 2) a data-transmission component, in electrical communication with the data-collection electronics, configured to transmit an outgoing data packet comprising the diagnostic data over a network and receive over the same network an incoming data packet that modifies the communication software." Lowrey, Abstract. According to Lowrey, "embodiments of the invention can access data from a vehicle, analyze it, and make it available to organizations (e.g. an automotive dealership or service center) over the internet so that the vehicle's performance can be analyzed accurately and in real-time." Lowrey, col. 1, line 65 – col. 2, line 2. Lowrey describes that "[t]he data include, for example, DTCs and mechanical and electrical data stored in the vehicle's engine computer." Lowrey, col. 1, lines 12-14.

As discussed below in relation to the claims of the '278 patent, the Lowrey reference describes a "schema component" or "schema" that may be regarded as corresponding to the claimed "enabling data" that enables or regulates the acquisition of, or otherwise relates to, at least one "vehicle device code" (e.g. diagnostic trouble codes (DTCs)) to be collected from the vehicle's computer systems (e.g. the ECU). In particular, the claimed "enabling data" may be thought of as reading on or encompassing Lowrey's schema, one or more elements of Lowrey's schema, or the data packet containing Lowrey's schema. The Lowrey reference introduces this "schema component" at col. 2, line 63 – col. 3, line 7:

> In embodiments, the communication software supported by the data-collection component features a schema component that identifies the diagnostic data to be collected from the vehicle's computer. The schema component features an address that describes a location of a diagnostic datum in the vehicle's computer memory. It can also describe a time or frequency that the data-collection component collects data from the vehicle's computer, or a time or frequency that the data-transmission component transmits an outgoing data packet. The schema component is typically an ASCII or binary data file that is configured to be processed by the communication software.

The Lowrey reference further provides that "software schemas that update the type or frequency of the vehicle's data can be directly downloaded to specific wireless appliances or groups of wireless appliances (corresponding, e.g., to a fleet of vehicles or a group of vehicles having the same year, make, or model)," that "[t]he schema is essentially a 'map' that describes

the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory," that "[a] schema specific to a given type of vehicle is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle," and that "[t]he appliance collects diagnostic data defined by the schema, formats these data in a data packet, and then sends an outgoing packet over the airlink to a wireless network." Lowrey, col. 5, lines 10-14 and col. 6, line 59 – col. 7, line 3.

Lowrey further describes the use of a web site to select a new schema based on the data obtained using the previous schema, as described, for example, in relation to Figure 2 at col. 7, lines 14-43:

> In one mode of operation, a technician working at a vehicle-service center logs into the web site and analyzes the data set corresponding to a particular vehicle to diagnose a potential mechanical or electrical problem (step 30). … Based on the analysis, the technician may decide that additional data are required, or that data need to be collected and transmitted at a higher or lower frequency. In this case the technician uses the web site to select a new schema (step 32) and then sends an incoming data packet that includes a new schema over the wireless network to the wireless appliance included in the vehicle being diagnosed (step 34). … The wireless appliance uses the updated schema to extract a revised set of data from the vehicle's engine computer, or send out data at a revised frequency (step 38). In other applications, the new schema can be used to query a set of data that is relevant to a DTC registered by the vehicle, or to 'clear' a DTC when it is deemed to no longer be problematic. Once these data are collected, the method 21 can then be repeated as described above to further diagnose the vehicle.

As can be seen, a new or updated schema may be used to extract a revised set of data from the vehicle's engine computer that is relevant to a DTC registered by the vehicle, as well as to "clear" a DTC when it is deemed to no longer be problematic. At least with respect to its teachings concerning the "schema," the Lowrey reference is non-cumulative with the prior art of record.

Additional information and details forming additional disclosure of Lowrey's disclosed system can be found in U.S. Patent No. 6,636,790 to Lightner et al. ("the Lightner reference"), the contents of which are expressly incorporated by reference in Lowrey and which shares common inventors with Lowrey including Bruce Lightner and Larkin Hill Lowrey. The Lightner reference is incorporated by reference at col. 2, lines 59-62 of Lowrey ("Such a wireless

appliance is described in the application WIRELESS DIAGNOSTIC SYSTEM FOR VEHICLES, filed Feb. 1, 2001, the contents of which are incorporated herein by reference") and again referred to at col. 6, lines 43-47 ("The wireless appliance that provides diagnostic data to the web site is described in more detail in WIRELESS DIAGNOSTIC SYSTEM FOR VEHICLES, filed Feb. 1, 2001, the contents of which have been previously incorporated by reference"). While no serial number or publication number is provided by Lowrey, it can be seen from the title and filing date that the Lightner reference is the referenced document. In this regard, it must be noted that Lowrey's incorporation by reference reflects the original title of the Lightner reference ("WIRELESS DIAGNOSTIC SYSTEM FOR VEHICLES"). The title was amended to its current form ("WIRELESS DIAGNOSTIC SYSTEM AND METHOD FOR MONITORING VEHICLES") during the prosecution of the Lightner reference on July 9, 2002, after Lowrey's reference to the application had already been made. The Lightner reference was filed on the specified date of February 1, 2001 and identifies common inventors as noted above.[2] The Lightner reference is attached as Exhibit B2.

III. Detailed Explanation of Pertinency and Manner of Applying the Cited Prior Art

(1) There is a substantial new question of patentability as to whether claims 1, 2, and 4-22 are anticipated by the Lowrey reference under pre-AIA 35 U.S.C. § 102(b).

The pertinency and manner of applying the Lowrey reference to claims 1, 2, and 4-22 is detailed in the following claim chart:

Claims of '278 Patent	**Lowrey Reference (US 6,611,740)**
1. A **multi-vehicle compatible tracking unit** for a **vehicle** comprising a **vehicle data bus** extending throughout the vehicle, the multi-vehicle compatible tracking unit comprising:	*"**multi-vehicle compatible tracking unit**" = Lowrey's wireless appliance 13* - *Lowrey's wireless appliance 13 (see Fig. 1) corresponds to the claimed "multi-vehicle compatible tracking unit." As noted by Lowrey at col. 10, lines 56-61, the wireless appliance 13 may include hardware for global-positioning systems (GPS) so that the location of the vehicle can be monitored along with its data. Therefore, the wireless appliance 13 constitutes a tracking unit. Further, the wireless appliance 13 is "multi-vehicle compatible" because it can be easily installed in nearly every vehicle with an OBD-II connector as described at col. 4, lines 59-63. The multi-vehicle compatibility of an OBD-II connector is described in*

[2] USPTO records show one other application sharing common inventors that was filed on the same day, which issued as U.S. Patent No. 6,604,033 to Banet et al. ("the Banet reference"). However, unlike the Lightner reference, the title of the Banet reference does not match the wording of Lowrey's incorporation by reference.

	greater detail at col. 6, line 53 – col. 7, line 7 of U.S. Patent No. 6,636,790 to Lightner et al. ("the Lightner reference"), which is incorporated by reference in Lowrey and shares common inventors with Lowrey including Bruce Lightner and Larkin Hill Lowrey. *"**vehicle**" = Lowrey's vehicle 12* *"**vehicle data bus**" = Lowrey's electronic buss mentioned at col. 1, lines 14-25* - *In a District Court claim construction order, the "vehicle data bus" was construed as "wired connection for communication of digital messages among vehicle devices, with each message including one or more device addresses."* See *Order, pp. 9-12,* Omega Patents, LLC, v. Calamp Corp.*, No. 6:13-cv-1950-Orl-40DAB (Dist. Ct. M.D. Fla. Orlando Div., Fla.), attached as Exhibit G. Lowrey's electronic buss described at col. 1, lines 14-25, which "effectively functions as an on-board computer network with many processors, each of which transmits and receives data," is consistent with this construction.* Lowrey, col. 1, lines 14-25: "OBD-II systems (e.g., microcontrollers and sensors) monitor the vehicle's electrical and mechanical systems and generate data that are processed by a vehicle's engine control unit (ECU) to detect any malfunction or deterioration in the vehicle's performance. Most ECUs transmit status and diagnostic information over a ***shared, standardized electronic buss*** in the vehicle. The buss effectively functions as an on-board computer network with many processors, each of which transmits and receives data. The primary computers in this network are the vehicle's electronic-control module (ECM) and power-control module (PCM)." Lowrey, col. 4, lines 59-63: "The wireless appliance used to access and transmit the vehicle's data is small, low-cost, and ***can be easily installed in nearly every vehicle with an OBD-II connector*** in a matter of minutes. It can also be easily transferred from one vehicle to another, or easily replaced if it malfunctions." Lowrey, col. 10, lines 56-61: "In other embodiments, additional hardware can be added to the in-vehicle wireless appliance to increase the number of parameters in the transmitted data. For example, ***hardware for global-positioning systems (GPS)*** may be added so that the location of the vehicle can be monitored along with its data." Lightner, col. 6, line 53 – col. 7, line 7: "FIG. 2 shows a data collector/router 35 in electrical contact with a vehicle's OBD/ECU system 100. The two systems connect through a conventional OBD-II connector 120 typically located under the vehicle's dashboard. The data collector/router 35 is contained in a small, portable housing that plugs directly into the connector 120 and can be easily installed and replaced. The connector 120 has a serial, 16-cavity layout, with specific electrical connections in separate cavities supplying data and electrical power from the OBD/ECU system 100. The connector electrically and mechanically matches an OBD-II interface 102 in the data collector/router 35. Although the OBD-II connector 120 has a standard mechanical interface, data transmitted through it

	may have a format and pass through cavities that depend on the vehicle's make and model. For example, Ford and General Motors vehicles use an OBD data format called J1850; data in this format pass through cavities 2 and 10. Chrysler and most European and Asian manufacturers use a data format called ISO 9141-2 and pass data through cavities 7 and 15. In a third format, called J2284, data is passed through cavities 6 and 14."
a **vehicle position determining device**;	*"**vehicle position determining device**" = Lowrey's hardware for global-positioning systems (GPS)* - *Lowrey's hardware for global-positioning systems (GPS), which can be added so that the location of the vehicle can be monitored along with its data as described at col. 10, lines 56-61, corresponds to the claimed "vehicle position determining device."* Lowrey, col. 10, lines 56-61: "In other embodiments, additional hardware can be added to the in-vehicle wireless appliance to increase the number of parameters in the transmitted data. For example, hardware for global-positioning systems (GPS) may be added so that the location of the vehicle can be monitored along with its data."
a **wireless communications device**;	*"**wireless communications device**" = data-transmission/data-transmitting component of Lowrey's appliance 13* - *Lowrey's data-transmission component (*see *col. 6, lines 8-22) or data-transmitting component (*see *col. 2, lines 55-59) of the appliance 13 corresponds to the claimed "wireless communications device." As described at col. 2, lines 55-59, for example, the data-transmitting component may be a radio or cellular modem and sends out the data packet over an existing wireless network.* Lowrey, col. 2, lines 55-59: "The 'wireless appliance' used in the above-described invention features a ***data-transmitting component*** (e.g. a radio or cellular modem) that sends out the data packet over an existing wireless network (e.g., Cingular's Mobitex network)." Lowrey, col. 6, lines 8-22: "The wireless appliance 13 disposed within the vehicle 12 collects diagnostic data from the vehicle's engine computer 15. The engine computer 15 retrieves data stored in its memory and sends it along a cable 16 to the wireless appliance 13. The appliance 13 typically connects to the OBD-II connector located under the dash in all vehicles manufactured after 1996. It includes a data-collection component (not shown in the figure) that formats the data in a packet and then passes the packet to a ***data-transmission component***, which sends it through a cable 17 to an antenna 14. To generate the data, the wireless appliance 13 queries the vehicle's computer 15 at a first time interval (e.g. every 20 seconds), and transmits a data set at a longer time interval (e.g. every 10 minutes). These time intervals are specified in a data-collection 'schema', described in more detail below."
a **multi-vehicle compatible controller** for cooperating with said vehicle position determining device	*"**multi-vehicle compatible controller**" = data-collection component of Lowrey's appliance 13* - *During one of the prior reexaminations of the '278 patent, the Patent Trial and Appeal Board (PTAB) approved a construction of the term "multi-vehicle compatible controller" as "electronic*

and said wireless communications device to send vehicle position information;	*circuitry that performs one or more control functions, and can operate with more than one vehicle."* See *Reexamination Control No. 90/013,851, November 13, 2018 Decision on Appeal (attached as Exhibit F), pp. 7-8. Consistent with this construction, Lowrey's data-collection component of the wireless appliance 13 (*see *col. 6, lines 8-22), which includes a microcontroller as described at col. 6, lines 55-59, corresponds to the claimed "multi-vehicle compatible controller." The data-collection component is "multi-vehicle compatible" because the wireless component 13 can be easily installed in nearly every vehicle with an OBD-II connector as described at col. 4, lines 59-63. Thus, it "can operate with more than one vehicle" in accordance with the construction approved by the PTAB. The data collection component of the wireless component 13 may be regarded as cooperating with the "vehicle position determining device" in the sense that the additional GPS hardware described at col. 10, lines 56-61 is added to increase the number of parameters in the transmitted data so that the location of the vehicle can be monitored.* Lowrey, col. 4, lines 59-63: "The wireless appliance used to access and transmit the vehicle's data is small, low-cost, and ***can be easily installed in nearly every vehicle with an OBD-II connector*** in a matter of minutes. It can also be easily transferred from one vehicle to another, or easily replaced if it malfunctions." Lowrey, col. 6, lines 8-22: "The wireless appliance 13 disposed within the vehicle 12 collects diagnostic data from the vehicle's engine computer 15. The engine computer 15 retrieves data stored in its memory and sends it along a cable 16 to the wireless appliance 13. The appliance 13 typically connects to the OBD-II connector located under the dash in all vehicles manufactured after 1996. It includes a ***data-collection component*** (not shown in the figure) that formats the data in a packet and then passes the packet to a data-transmission component, which sends it through a cable 17 to an antenna 14. To generate the data, the wireless appliance 13 queries the vehicle's computer 15 at a first time interval (e.g. every 20 seconds), and transmits a data set at a longer time interval (e.g. every 10 minutes). These time intervals are specified in a data-collection 'schema', described in more detail below." Lowrey, col. 6, lines 55-59: "As described above, the wireless appliance includes a data-collection component that, in turn, includes a ***microcontroller*** that has software and a data-collection 'schema' loaded in the microcontroller's memory." Lowrey, col. 10, lines 56-61: "In other embodiments, additional hardware can be added to the in-vehicle wireless appliance ***to increase the number of parameters in the transmitted data***. For example, hardware for global-positioning systems (GPS) may be added so that the ***location of the vehicle*** can be monitored along with its data."
said multi-vehicle compatible controller	*"**at least one vehicle device**" = engine computer 15 of Lowrey's vehicle* - *Lowrey's vehicle's engine computer 15 that sends diagnostic data*

to be coupled to the vehicle data bus for communication thereover with **at least one vehicle device** using **at least one corresponding vehicle device code** from among a plurality thereof for different vehicles; and	*along a cable 16 to the wireless appliance 13 as described at col. 6, lines 8-22 corresponds to the claimed "at least one vehicle device." A person having ordinary skill in the art would understand the cable 16 to be part of the physical transmission medium of the shared, standardized electronic buss referred to at col. 1, lines 14-25.* *"**at least one corresponding vehicle device code**" = diagnostic data collected from engine computer 15 by Lowrey's wireless appliance 13* - *During the same prior reexamination of the '278 patent referred to above, the PTAB approved a construction of the term "device codes" as "signal from a vehicle device."* See *Reexamination Control No. 90/013,851, November 13, 2018 Decision on Appeal (attached as Exhibit F), p. 8: "The district court construed the term 'device codes' as 'signal from a vehicle device,' Dist. Ct. Claim Construction Order at 17, 255—a construction that is likewise consistent with its broadest reasonable interpretation."[3] For consistency with this construction, the present request correlates the claimed "vehicle device codes" or "vehicle codes" with the diagnostic data collected from the vehicle computer 15 by Lowrey's wireless appliance 13. Namely, the diagnostic data collected from the vehicle's engine computer 15 corresponds to the claimed "at least one corresponding vehicle device code," which can include DTCs (i.e. "codes") as described at col. 1, line 63 – col. 2, line 14. This diagnostic data is "corresponding" in the sense that it is defined by a schema specific to a given type of vehicle as described at col. 6, line 59 – col. 7, line 3. That is, the schema "describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory." The Lightner reference, which is incorporated by reference, elaborates on exactly how such diagnostic data is vehicle-specific at col. 6, lines 26-34.* - *The PTAB also construed the term "different vehicles" so as not to include those with the same vehicle codes.* See *Reexamination Control No. 90/013,851, November 13, 2018 Decision on Appeal (attached as Exhibit F), pp. 8-10. The different types of vehicles contemplated by Lowrey and Lightner are "different vehicles" in a sense that is consistent with this construction, as can be understood from col. 6, line 59 - col. 7, line 3 of Lowrey and col. 6, lines 26-34 of Lightner.* Lowrey, col. 1, lines 14-25: "OBD-II systems (e.g., microcontrollers and sensors) monitor the vehicle's electrical and mechanical systems and generate data that are processed by a vehicle's engine control unit (ECU) to detect any malfunction or deterioration in the vehicle's performance. Most ECUs transmit

[3] The passage of the claim construction order cited by the PTAB construed the term "device codes" as used in U.S. Patent Nos. 6,346,876 and 6,756,885. The claim construction order did not construe the term "vehicle device codes" as used in the '278 patent. *See* Order, pp. 15-17, *Omega Patents, LLC, v. Calamp Corp.*, No. 6:13-cv-1950-Orl-40DAB (Dist. Ct. M.D. Fla. Orlando Div., Fla.), attached as Exhibit G.

	status and diagnostic information over a ***shared, standardized electronic buss*** in the vehicle. The buss effectively functions as an on-board computer network with many processors, each of which transmits and receives data. The primary computers in this network are the vehicle's electronic-control module (ECM) and power-control module (PCM)." Lowrey, col. 1, line 63 – col. 2, line 14: "Embodiments of the invention can provide a wireless, internet-based system for monitoring a vehicle. For example, embodiments of the invention can access data from a vehicle, analyze it, and make it available to organizations (e.g. an automotive dealership or service center) over the internet so that the vehicle's performance can be analyzed accurately and in real-time. Data are accessed through the same OBD-II connector used by conventional scan tools. In this way, the invention collects data similar to those collected by scan tools, only they are collected in real-time while the vehicle is actually being driven. The invention also provides an Internet-based web site to view these data. The web site also includes functionality to modify the type of data being collected, e.g. the type of diagnostic data or the frequency at which it is collected. The data can be collected and viewed over the Internet without having to bring the vehicle in for service. ***The data include, for example, DTCs*** and mechanical and electrical data stored in the vehicle's engine computer." Lowrey, col. 6, lines 8-22: "The wireless appliance 13 disposed within the vehicle 12 collects ***diagnostic data*** from ***the vehicle's engine computer 15***. The engine computer 15 retrieves data stored in its memory and sends it along a cable 16 to the wireless appliance 13. The appliance 13 typically connects to the OBD-II connector located under the dash in all vehicles manufactured after 1996. It includes a data-collection component (not shown in the figure) that formats the data in a packet and then passes the packet to a data-transmission component, which sends it through a cable 17 to an antenna 14. To generate the data, the wireless appliance 13 queries the vehicle's computer 15 at a first time interval (e.g. every 20 seconds), and transmits a data set at a longer time interval (e.g. every 10 minutes). These time intervals are specified in a data-collection 'schema', described in more detail below." Lowrey, col. 6, line 59 - col. 7, line 3: "The ***schema*** is essentially a 'map' that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory. A ***schema specific to a given type of vehicle*** is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle (step 22 in FIG. 2). During operation, the appliance communicates with the vehicle's engine computer as described above (step 23). ***The appliance collects diagnostic data defined by the schema***, formats these data in a data packet, and then sends an outgoing packet over the airlink to a wireless network (step 24)." Lightner, col. 6, lines 26-34: "***Depending on the make and model of the vehicle***, the data packet can contain hundreds of datum that describe, e.g.: i) basic properties of the power train (e.g., emission levels, fuel-system status, engine temperature, speed and odometer readings, anti-lock brake status, RPMs,

	fuel and intake manifold pressure); and ii) ***manufacturer-specific information*** (e.g., status of the door locks, airbags, and entertainment center). In total, for most vehicles there are typically more than 300 datum that can be included in the data packet."
a **downloading interface** for permitting downloading of **enabling data** related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller.	*"**downloading interface**" = data-transmission component of Lowrey's wireless appliance* - *Lowrey's data-transmission component of the wireless appliance 13, which receives an incoming data packet as described in Lowrey's Abstract, corresponds to the claimed "downloading interface."*[4] *"**enabling data**" = Lowrey's schema or data packet containing the schema* - *During the same prior reexamination of the '278 patent referred to above, the PTAB broadly construed the term "enabling data," noting three examples of enabling data at col. 24, lines 9-13 of the '278 patent and pointing out that the specification introduces these examples with permissive and exemplary language.* See *Reexamination Control No. 90/013,851, November 13, 2018 Decision on Appeal (attached as Exhibit F), p. 12: "Our emphasis on the permissive and exemplary language in this passage underscores that enabling data is not limited to these three alternatives." The PTAB goes on to explain, on pp. 12-13, "But despite this non-limiting description, what is clear from Appellant's disclosure is that downloading enabling data via the recited interface enables the recited controller to use a* particular *vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code." In accordance with this construction, Lowrey's schema, or the data packet containing the schema (*see *col. 7, lines 19-26), may be regarded as the claimed "enabling data" because it describes the diagnostic data to collect and its corresponding location in the computer's memory. By describing the data to collect and its location, the schema enables the wireless appliance 13 to collect that particular data, i.e., to use that particular vehicle device code from among plural such codes for different vehicles corresponding to different schemas.* Lowrey, col. 5, lines 10-14: "Moreover, software schemas that update the type or frequency of the vehicle's data can be directly ***downloaded*** to specific wireless appliances or groups of wireless appliances (corresponding, e.g., to a fleet of vehicles or a group of vehicles having the same year, make, or model)." Lowrey, col. 6, line 59 - col. 7, line 3: "***The schema is essentially a 'map' that***

[4] In the context of downloading enabling data or programming instructions as recited in claims 1, 8, 13, 16, 18, and 21, the '278 patent uses the word "download" to refer to the receipt of data from outside the vehicle (e.g. from a downloading device 115, 115', 115" as shown in Figs. 11-13 of the '278 patent). Elsewhere, in the context of monitoring vehicle position information, the '278 patent also uses the word "download" to refer to the receipt of data from a memory 52 located in the vehicle (*see*, e.g., col. 11, lines 24-35 and Figs. 1 and 2 of the '278 patent).

	describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory. A schema specific to a given type of vehicle is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle (step 22 in FIG. 2). During operation, the appliance communicates with the vehicle's engine computer as described above (step 23). ***The appliance collects diagnostic data defined by the schema***, formats these data in a data packet, and then sends an outgoing packet over the airlink to a wireless network (step 24)." Lowrey, col. 7, lines 19-26: "Based on the analysis, the technician may decide that additional data are required, or that data need to be collected and transmitted at a higher or lower frequency. In this case the technician uses the web site to select a new schema (step 32) and then ***sends an incoming data packet that includes a new schema over the wireless network to the wireless appliance*** included in the vehicle being diagnosed (step 34)." Lowrey, Abstract: "The wireless appliance features: ... a data-transmission component, in electrical communication with the data-collection electronics, configured to transmit an outgoing data packet comprising the diagnostic data over a network ***and receive over the same network an incoming data packet that modifies the communication software***."
2. The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface comprises a **wired signal downloading interface**.	*"**wired signal downloading interface**" = the connection of Lowrey's data-transmission component to the cable 17 for communication via the antenna 14 (*see *Abstract and col. 6, lines 14-18)* - *The data-transmission component may be regarded as "compris[ing] a wired signal downloading interface" because it comprises a connection to the cable 17 for communication using the antenna 14. That is, at least one leg of the downloading interface is wired. Claim 2 does not require the "data-transmission component" to "be" or to "consist of" the "wired signal downloading interface." Rather, the open term "comprises" is used, admitting the possibility of wireless legs in addition to wired legs of the claimed "downloading interface."* Lowrey, Abstract: "The wireless appliance features: ... a data-transmission component, in electrical communication with the data-collection electronics, configured to transmit an outgoing data packet comprising the diagnostic data over a network and receive over the same network an incoming data packet that modifies the communication software." Lowrey, col. 6, lines 14-18: "It includes a data-collection component (not shown in the figure) that formats the data in a packet and then passes the packet to a data-transmission component, which sends it through a ***cable 17*** to an antenna 14."
4. The multi-vehicle compatible tracking unit according to claim	*"**wireless signal downloading interface**" = data-transmission component of Lowrey's wireless appliance 13* - *The data-transmission component of Lowrey's wireless appliance*

1 wherein said downloading interface comprises a **wireless signal downloading interface**.	*13, which transmits and receives data packets over a wireless network (*see *col. 7, lines 19-26 and Abstract) corresponds to the claimed "wireless signal downloading interface."* Lowrey, col. 7, lines 19-26: "Based on the analysis, the technician may decide that additional data are required, or that data need to be collected and transmitted at a higher or lower frequency. In this case the technician uses the web site to select a new schema (step 32) and then sends an incoming data packet that includes a new schema ***over the wireless network to the wireless appliance*** included in the vehicle being diagnosed (step 34)." Lowrey, Abstract: "The wireless appliance features: ... a ***data-transmission component***, in electrical communication with the data-collection electronics, configured to transmit an outgoing data packet comprising the diagnostic data over a network and receive over the same network an incoming data packet that modifies the communication software."
5. The multi-vehicle compatible tracking unit according to claim 4 wherein said wireless signal downloading interface comprises a **wireless receiver** for temporary connection to a **downloading device**.	*"**wireless receiver**" = the receive functionality of Lowrey's data-transmission component (*see *col. 2, lines 18-22)* *"**downloading device**" = Lowrey's host computer system 5 (*see *col. 2, lines 18-22 and col. 6, lines 28-38)* Lowrey, col. 2, lines 18-22: "The wireless appliance includes a ***data-transmission component*** configured to transmit data associated with the operational characteristics over a network to a host computer system, and to ***receive over the network data from the host computer system***." Lowrey, col. 6, lines 28-38: "The ***host computer system 5***, for example, may include multiple computers, software pieces, and other signal-processing and switching equipment, such as routers and digital signal processors. Data are typically transferred from the wireless network 4 to host computer system 5 through a TCP/IP-based connection, or with a dedicated digital leased line (e.g., a frame-relay circuit or a digital line running an x0.25 protocol). The host computer system 5 also hosts a web site 6 using conventional computer hardware (e.g. computer servers for a database and the web site) and software (e.g., web server and database software)."
6. The multi-vehicle compatible tracking unit according to claim 1 wherein the corresponding at least one vehicle code is for reading from the at	*The collected diagnostic data, which corresponds to the "at least one vehicle code,"[5] is "for reading from the at least one vehicle device" in the sense that it provides the desired information from the engine computer 15 about the state of the vehicle. For example, a 5-digit DTC may "indicate a specific problem with the vehicle" as described at col. 1, lines 11-36.* Lowrey, col. 1, lines 11-36: "The Environmental Protection Agency (EPA)

[5] The claims of the '278 patent appear to use "at least one vehicle code" and "at least one vehicle device code" interchangeably, with claim 6 being the first occurrence of "at least one vehicle code." The term is introduced as part of the phrase "the corresponding at least one vehicle code," which has no antecedent basis other than "at least one corresponding vehicle device code" in claim 1.

least one vehicle device.	requires vehicle manufacturers to install on-board diagnostics (OBD-II) for monitoring light-duty automobiles and trucks beginning with model year 1996. OBD-II systems (e.g., microcontrollers and sensors) monitor the vehicle's electrical and mechanical systems and generate data that are processed by a vehicle's engine control unit (ECU) to detect any malfunction or deterioration in the vehicle's performance. Most ECUs transmit ***status and diagnostic information*** over a shared, standardized electronic buss in the vehicle. The buss effectively functions as an on-board computer network with many processors, each of which transmits and receives data. The primary computers in this network are the vehicle's electronic-control module (ECM) and power-control module (PCM). The ECM typically monitors engine functions (e.g., the cruise-control module, spark controller, exhaust/gas recirculator), while the PCM monitors the vehicle's power train (e.g., its engine, transmission, and braking systems). Data available from the ECM and PCM include vehicle speed, fuel level, engine temperature, and intake manifold pressure. In addition, in response to input data, the ECU also generates ***5-digit 'diagnostic trouble codes' (DTCs) that indicate a specific problem with the vehicle***. The presence of a DTC in the memory of a vehicle's ECU typically results in illumination of the 'Service Engine Soon' light present on the dashboard of most vehicles." *The collected diagnostic data may additionally be regarded as "for reading from the at least one vehicle device" in the sense that it may inform a technician about what additional data to collect as described at col. 7, lines 14-43, which may result in collection of a "revised set of data," that is relevant to a DTC registered by the vehicle. This use of the collected diagnostic data for comparison with later-collected data or for collecting additional relevant data (e.g. "drilling down"), and thus "for reading," is elaborated on at col. 3, line 22 – col. 4, line 8 and col. 8, lines 35-50 of the Lightner reference, which is incorporated by reference.* Lowrey, col. 7, lines 14-43: "In one mode of operation, a technician working at a vehicle-service center logs into the web site and analyzes the data set corresponding to a particular vehicle to diagnose a potential mechanical or electrical problem (step 30). Specific web pages that display the data set are shown in FIGS. 5-7, below. ***Based on the analysis, the technician may decide that additional data are required, or that data need to be collected and transmitted at a higher or lower frequency.*** In this case the technician uses the web site to select a new schema (step 32) and then sends an incoming data packet that includes a new schema over the wireless network to the wireless appliance included in the vehicle being diagnosed (step 34). In typical applications, the vehicle is specifically addressed using a serial number that corresponds to the data-transmitting component. This serial number is typically an 8 or 10-digit number that functions effectively as a 'phone number' corresponding to the data-transmitting component. This number is included in the data packet, and is used by the wireless network to transfer the packet to the host vehicle (step 35). The host vehicle receives the packet and processes it to extract the new data-collection schema (step 36). ***The wireless appliance uses the updated schema to extract a revised set of data from the vehicle's engine computer, or send out data at a revised frequency (step 38).*** In other

	applications, ***the new schema can be used to query a set of data that is relevant to a DTC registered by the vehicle***, or to 'clear' a DTC when it is deemed to no longer be problematic. Once these data are collected, the method 21 can then be repeated as described above to further diagnose the vehicle." Lightner, col. 3, line 22 – col. 4, line 8: "The generating step typically includes generating data encoded in a digital format using the vehicle's electronic control unit (ECM) and/or power control unit (PCM). The data, for example, describes the vehicle's mileage, exhaust emissions, engine performance, engine temperature, coolant temperature, intake-manifold pressure, engine-performance tuning parameters, alarm status, accelerometer status, cruise-control status, fuel-injector performance, spark-plug timing, and/or a status of an anti-lock braking system. The data can also be a DTC or related code. The analyzing step features extracting data from the transmitted data packet, and then storing the data in a computer memory or database. Once stored, the data is processed in a variety of ways. For example, the processing can simply involve determining the vehicle's odometer reading, and then comparing this reading to a schedule that lists recommended, mileage-dependent service events (e.g., a 5000-mile tune-up). Other algorithms include those that ***compare current data with data collected at an earlier time to dynamically characterize the performance of the vehicle***... … In another embodiment, the method additionally includes the step of sending ***a second data packet*** from the host computer system over an airlink to the wireless communications system and then to the vehicle's data collector/router. In this case, the second data packet is processed by the microprocessor in the data collector/router to generate a signal that is sent to at least one of the vehicle's microcontrollers. There, the signal is processed and used, for example to adjust a setting in the particular microcontroller. The signal can also be used to update or distribute new software or firmware configurations to one or more of the vehicle's microcontrollers. In still other embodiments, ***the signal can be used to make 'tailored' readings of the vehicle's diagnostic information, e.g. to perform complex diagnoses (sometimes called 'drilling down')*** and isolate malfunctioning components in the vehicle's mechanical or electrical systems." Lightner, col. 8, lines 35-50: "All the data (e.g. the vehicle's mileage collected at different time or mileage intervals) can be posted directly on a Web page on the Web server (step 162) where it is accessible by the end-user through the Internet. ***The data can also be analyzed further. For example, a current odometer reading can be compared to one recorded at an earlier date (step 160) to determine how many miles the vehicle has traveled since its last oil change.*** If this value exceeds that recommended for the particular vehicle, the host computer system can notify the user through electronic mail that the vehicle requires service (step 164). The method 150 can also be used to remotely adjust settings in the vehicle's OBD-II systems. For example, at this point the host computer system could send a data packet to the vehicle to reset the trip odometer to a new value (step 166)."

7. The multi-vehicle compatible tracking unit according to claim 1 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.	*As noted above, for consistency with PTAB's construction of the term "device codes" as "signal from a vehicle device," the present request correlates the claimed "vehicle device codes" or "vehicle codes" with the diagnostic data collected from the vehicle computer 15 by Lowrey's wireless appliance 13 (*see *above discussion of claim 1, etc.). Accordingly, the present request construes claim 7 ("wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device") in the sense that the diagnostic data collected from Lowrey's vehicle computer 15 is "for writing," i.e. to be used subsequently for writing data or commands to the vehicle computer 15. In particular, the collected diagnostic data, which corresponds to the "at least one vehicle code," is "for writing to the at least one vehicle device" in the sense that the new schema selected by the technician based on the collected data can be used to 'clear' a DTC when it is deemed to no longer be problematic as described at col. 7, lines 14-43. Clearing a DTC entails communicating data to the ECU that commands the ECU to change the data stored in the vehicle's engine computer (corresponding to the "at least one vehicle device") and thus "writing." Additional examples of using the collected data for adjusting a setting in the microcontroller or updating or distributing new software or firmware configurations, and thus "for writing," are found at col. 3, line 22 – col. 4, line 8 and col. 8, lines 35-50 of the Lightner reference, which is incorporated by reference.* Lowrey, col. 7, lines 14-43: "In one mode of operation, a technician working at a vehicle-service center logs into the web site and analyzes the data set corresponding to a particular vehicle to diagnose a potential mechanical or electrical problem (step 30). Specific web pages that display the data set are shown in FIGS. 5-7, below. ***Based on the analysis, the technician may decide that additional data are required, or that data need to be collected and transmitted at a higher or lower frequency.*** In this case the technician uses the web site to select a new schema (step 32) and then sends an incoming data packet that includes a new schema over the wireless network to the wireless appliance included in the vehicle being diagnosed (step 34). In typical applications, the vehicle is specifically addressed using a serial number that corresponds to the data-transmitting component. This serial number is typically an 8 or 10-digit number that functions effectively as a 'phone number' corresponding to the data-transmitting component. This number is included in the data packet, and is used by the wireless network to transfer the packet to the host vehicle (step 35). The host vehicle receives the packet and processes it to extract the new data-collection schema (step 36). The wireless appliance uses the updated schema to extract a revised set of data from the vehicle's engine computer, or send out data at a revised frequency (step 38). In other applications, ***the new schema can be used to query a set of data that is relevant to a DTC registered by the vehicle, or to 'clear' a DTC when it is deemed to no longer be problematic.*** Once these data are collected, the method 21 can then be repeated as described above to further diagnose the vehicle." Lightner, col. 3, line 22 – col. 4, line 8: "The generating step typically includes generating data encoded in a digital format using the vehicle's electronic control unit (ECM) and/or power control unit (PCM). The data, for example, describes

	the vehicle's mileage, exhaust emissions, engine performance, engine temperature, coolant temperature, intake-manifold pressure, engine-performance tuning parameters, alarm status, accelerometer status, cruise-control status, fuel-injector performance, spark-plug timing, and/or a status of an anti-lock braking system. The data can also be a DTC or related code. The analyzing step features extracting data from the transmitted data packet, and then storing the data in a computer memory or database. Once stored, the data is processed in a variety of ways… In another embodiment, the method additionally includes the step of sending ***a second data packet*** from the host computer system over an airlink to the wireless communications system and then to the vehicle's data collector/router. In this case, the second data packet is processed by the microprocessor in the data collector/router to generate a signal that is sent to at least one of the vehicle's microcontrollers. There, the signal is processed and used, for example ***to adjust a setting in the particular microcontroller***. The signal can also be used ***to update or distribute new software or firmware configurations to one or more of the vehicle's microcontrollers***…" Lightner, col. 8, lines 35-50: "All the data (e.g. the vehicle's mileage collected at different time or mileage intervals) can be posted directly on a Web page on the Web server (step 162) where it is accessible by the end-user through the Internet. The data can also be analyzed further. For example, a current odometer reading can be compared to one recorded at an earlier date (step 160) to determine how many miles the vehicle has traveled since its last oil change. If this value exceeds that recommended for the particular vehicle, the host computer system can notify the user through electronic mail that the vehicle requires service (step 164). ***The method 150 can also be used to remotely adjust settings in the vehicle's OBD-II systems. For example, at this point the host computer system could send a data packet to the vehicle to reset the trip odometer to a new value (step 166).***"
8. The multi-vehicle compatible tracking unit according to claim 1 wherein said downloading interface is also for permitting downloading of **at least one programming instruction** for said multi-vehicle compatible controller.	*"**at least one programming instruction**" = Lowrey's incoming data packet that modifies the communication software (*see *Abstract)* - *In a District Court claim construction order, the "programming instruction" was construed as "Code which instructs the controller to perform an operation."* See *Order, pp. 23-24,* Omega Patents, LLC, v. Calamp Corp.*, No. 6:13-cv-1950-Orl-40DAB (Dist. Ct. M.D. Fla. Orlando Div., Fla.), attached as Exhibit G. Lowrey's incoming data packet that modifies the communication software, as describe in the Abstract, is consistent with this construction.* Lowrey, Abstract: "The wireless appliance features: ... a data-transmission component, in electrical communication with the data-collection electronics, configured to transmit an outgoing data packet comprising the diagnostic data over a network and receive over the same network an incoming data packet that ***modifies the communication software***."
9. The multi-vehicle compatible tracking	*"**remote transmitter**" = Lowrey's "hand-held device, e.g. a cellular telephone or personal digital assistant" (*see *col. 3, lines 56-63)*

unit according to claim 1 further comprising a **remote transmitter**; and	Lowrey, col. 3, lines 56-63: "The system can also include a secondary computer system that connects to the host computer system through the Internet to display the web site. Alternatively, the system includes a ***hand-held device***, e.g. a cellular telephone or personal digital assistant, which connects to the host computer system through the Internet. The host computer system can also be configured to send an electronic mail message that includes all or part of the vehicle diagnostic data."
wherein said multi-vehicle compatible controller also performs **at least one vehicle remote control function** responsive to said remote transmitter.	*"**at least one vehicle remote control function**" = remote control of Lowrey's vehicle* (see *col. 11, lines 8-13)* Lowrey, col. 11, lines 8-13: "In still other embodiments, data processed using the above-described systems can be used for: remote billing/payment of tolls; remote smog and emissions checks; remote payment of parking/valet services; ***remote control of the vehicle (e.g., in response to theft or traffic/registration violations)***; and general survey information."
10. The multi-vehicle compatible tracking unit according to claim 9 wherein the at least one vehicle remote control function comprises at least one of **a vehicle security function**, a remote keyless entry function, and a remote engine starting function.	*"**a vehicle security function**" = remote control of Lowrey's vehicle in response to theft* (see *col. 11, lines 8-13)* Lowrey, col. 11, lines 8-13: "In still other embodiments, data processed using the above-described systems can be used for: remote billing/payment of tolls; remote smog and emissions checks; remote payment of parking/valet services; ***remote control of the vehicle (e.g., in response to theft or traffic/registration violations)***; and general survey information."
11. The multi-vehicle compatible tracking unit according to claim 1 wherein said wireless position determining device comprises a **Global Positioning System (GPS) receiver**.	*"**Global Positioning System (GPS) receiver**" = Lowrey's hardware for global-positioning systems (GPS)* - *Lowrey's hardware for global-positioning systems (GPS), which can be added so that the location of the vehicle can be monitored along with its data as described at col. 10, lines 56-61, corresponds to the claimed "Global Positioning System (GPS) receiver."* Lowrey, col. 10, lines 56-61: "In other embodiments, additional hardware can be added to the in-vehicle wireless appliance to increase the number of parameters in the transmitted data. For example, hardware for global-positioning systems (GPS) may be added so that the location of the vehicle can be monitored along with its data."
12. The multi-vehicle compatible tracking unit according to claim 1 further comprising a **housing** containing	*"**housing**" = extent of what is considered "embedded" in Lowrey's wireless appliance* - *Considering that Lowrey distinguishes between "embedded in the wireless appliance" and not at col. 11, lines 5-7, it is implicitly disclosed that the wireless appliance 13 includes a housing that*

said vehicle position determining device, said wireless communications device, said multi-vehicle compatible controller, and said downloading interface.	*contains its components.* Lowrey, col. 11, lines 5-7: "In other embodiments, the antenna used to transmit the data packet is embedded in the wireless appliance, rather than being disposed in the vehicle's shade band."
13. A **multi-vehicle compatible tracking unit** for a **vehicle** comprising a **vehicle data bus** extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising:	*"**multi-vehicle compatible tracking unit**" = Lowrey's wireless appliance 13* - *Lowrey's wireless appliance 13 (see Fig. 1) corresponds to the claimed "multi-vehicle compatible tracking unit." As noted by Lowrey at col. 10, lines 56-61, the wireless appliance 13 may include hardware for global-positioning systems (GPS) so that the location of the vehicle can be monitored along with its data. Therefore, the wireless appliance 13 constitutes a tracking unit. Further, the wireless appliance 13 is "multi-vehicle compatible" because it can be easily installed in nearly every vehicle with an OBD-II connector as described at col. 4, lines 59-63. The multi-vehicle compatibility of an OBD-II connector is described in greater detail at col. 6, line 53 – col. 7, line 7 of U.S. Patent No. 6,636,790 to Lightner et al. ("the Lightner reference"), which is incorporated by reference in Lowrey and shares common inventors with Lowrey including Bruce Lightner and Larkin Hill Lowrey.* *"**vehicle**" = Lowrey's vehicle 12* *"**vehicle data bus**" = Lowrey's electronic buss mentioned at col. 1, lines 14-25* - *In a District Court claim construction order, the "vehicle data bus" was construed as "wired connection for communication of digital messages among vehicle devices, with each message including one or more device addresses."* See *Order, pp. 9-12,* Omega Patents, LLC, v. Calamp Corp.*, No. 6:13-cv-1950-Orl-40DAB (Dist. Ct. M.D. Fla. Orlando Div., Fla.), attached as Exhibit G. Lowrey's electronic buss described at col. 1, lines 14-25, which "effectively functions as an on-board computer network with many processors, each of which transmits and receives data," is consistent with this construction.* Lowrey, col. 1, lines 14-25: "OBD-II systems (e.g., microcontrollers and sensors) monitor the vehicle's electrical and mechanical systems and generate data that are processed by a vehicle's engine control unit (ECU) to detect any malfunction or deterioration in the vehicle's performance. Most ECUs transmit status and diagnostic information over a ***shared, standardized electronic buss*** in the vehicle. The buss effectively functions as an on-board computer network with many processors, each of which transmits and receives data. The primary computers in this network are the vehicle's electronic-control module (ECM) and power-control module (PCM)." Lowrey, col. 4, lines 59-63: "The wireless appliance used to access and transmit the vehicle's data is small, low-cost, and ***can be easily installed in nearly every***

	vehicle with an OBD-II connector in a matter of minutes. It can also be easily transferred from one vehicle to another, or easily replaced if it malfunctions." Lowrey, col. 10, lines 56-61: "In other embodiments, additional hardware can be added to the in-vehicle wireless appliance to increase the number of parameters in the transmitted data. For example, ***hardware for global-positioning systems (GPS)*** may be added so that the location of the vehicle can be monitored along with its data." Lightner, col. 6, line 53 – col. 7, line 7: "FIG. 2 shows a data collector/router 35 in electrical contact with a vehicle's OBD/ECU system 100. The two systems connect through a conventional OBD-II connector 120 typically located under the vehicle's dashboard. The data collector/router 35 is contained in a small, portable housing that plugs directly into the connector 120 and can be easily installed and replaced. The connector 120 has a serial, 16-cavity layout, with specific electrical connections in separate cavities supplying data and electrical power from the OBD/ECU system 100. The connector electrically and mechanically matches an OBD-II interface 102 in the data collector/router 35. Although the OBD-II connector 120 has a standard mechanical interface, data transmitted through it may have a format and pass through cavities that depend on the vehicle's make and model. For example, Ford and General Motors vehicles use an OBD data format called J1850; data in this format pass through cavities 2 and 10. Chrysler and most European and Asian manufacturers use a data format called ISO 9141-2 and pass data through cavities 7 and 15. In a third format, called J2284, data is passed through cavities 6 and 14."
a **vehicle position determining device**;	*"**vehicle position determining device**" = Lowrey's hardware for global-positioning systems (GPS)* - *Lowrey's hardware for global-positioning systems (GPS), which can be added so that the location of the vehicle can be monitored along with its data as described at col. 10, lines 56-61, corresponds to the claimed "vehicle position determining device."* Lowrey, col. 10, lines 56-61: "In other embodiments, additional hardware can be added to the in-vehicle wireless appliance to increase the number of parameters in the transmitted data. For example, hardware for global-positioning systems (GPS) may be added so that the location of the vehicle can be monitored along with its data."
a **wireless communications device**;	*"**wireless communications device**" = data-transmission/data-transmitting component of Lowrey's appliance 13* - *Lowrey's data-transmission component (*see *col. 6, lines 8-22) or data-transmitting component (*see *col. 2, lines 55-59) of the appliance 13 corresponds to the claimed "wireless communications device." As described at col. 2, lines 55-59, for example, the data-transmitting component may be a radio or cellular modem and sends out the data packet over an existing wireless network.* Lowrey, col. 2, lines 55-59: "The 'wireless appliance' used in the above-described invention features a ***data-transmitting component*** (e.g. a radio or

	cellular modem) that sends out the data packet over an existing wireless network (e.g., Cingular's Mobitex network)." Lowrey, col. 6, lines 8-22: "The wireless appliance 13 disposed within the vehicle 12 collects diagnostic data from the vehicle's engine computer 15. The engine computer 15 retrieves data stored in its memory and sends it along a cable 16 to the wireless appliance 13. The appliance 13 typically connects to the OBD-II connector located under the dash in all vehicles manufactured after 1996. It includes a data-collection component (not shown in the figure) that formats the data in a packet and then passes the packet to a ***data-transmission component***, which sends it through a cable 17 to an antenna 14. To generate the data, the wireless appliance 13 queries the vehicle's computer 15 at a first time interval (e.g. every 20 seconds), and transmits a data set at a longer time interval (e.g. every 10 minutes). These time intervals are specified in a data-collection 'schema', described in more detail below."
a **multi-vehicle compatible controller** for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;	*"**multi-vehicle compatible controller**" = data-collection component of Lowrey's appliance 13* - *During one of the prior reexaminations of the '278 patent, the Patent Trial and Appeal Board (PTAB) approved a construction of the term "multi-vehicle compatible controller" as "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle."* See *Reexamination Control No. 90/013,851, November 13, 2018 Decision on Appeal (attached as Exhibit F), pp. 7-8. Consistent with this construction, Lowrey's data-collection component of the wireless appliance 13 (*see *col. 6, lines 8-22), which includes a microcontroller as described at col. 6, lines 55-59, corresponds to the claimed "multi-vehicle compatible controller." The data-collection component is "multi-vehicle compatible" because the wireless component 13 can be easily installed in nearly every vehicle with an OBD-II connector as described at col. 4, lines 59-63. Thus, it "can operate with more than one vehicle" in accordance with the construction approved by the PTAB. The data collection component of the wireless component 13 may be regarded as cooperating with the "vehicle position determining device" in the sense that the additional GPS hardware described at col. 10, lines 56-61 is added to increase the number of parameters in the transmitted data so that the location of the vehicle can be monitored.* Lowrey, col. 4, lines 59-63: "The wireless appliance used to access and transmit the vehicle's data is small, low-cost, and ***can be easily installed in nearly every vehicle with an OBD-II connector*** in a matter of minutes. It can also be easily transferred from one vehicle to another, or easily replaced if it malfunctions." Lowrey, col. 6, lines 8-22: "The wireless appliance 13 disposed within the vehicle 12 collects diagnostic data from the vehicle's engine computer 15. The engine computer 15 retrieves data stored in its memory and sends it along a cable 16 to the wireless appliance 13. The appliance 13 typically connects to the OBD-II connector located under the dash in all vehicles manufactured after

	1996. It includes a ***data-collection component*** (not shown in the figure) that formats the data in a packet and then passes the packet to a data-transmission component, which sends it through a cable 17 to an antenna 14. To generate the data, the wireless appliance 13 queries the vehicle's computer 15 at a first time interval (e.g. every 20 seconds), and transmits a data set at a longer time interval (e.g. every 10 minutes). These time intervals are specified in a data-collection 'schema', described in more detail below." Lowrey, col. 6, lines 55-59: "As described above, the wireless appliance includes a data-collection component that, in turn, includes a ***microcontroller*** that has software and a data-collection 'schema' loaded in the microcontroller's memory." Lowrey, col. 10, lines 56-61: "In other embodiments, additional hardware can be added to the in-vehicle wireless appliance ***to increase the number of parameters in the transmitted data***. For example, hardware for global-positioning systems (GPS) may be added so that the ***location of the vehicle*** can be monitored along with its data."
said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with **at least one vehicle device** using **at least one corresponding vehicle device code** from among a plurality thereof for different vehicles; and	*"**at least one vehicle device**" = engine computer 15 of Lowrey's vehicle* - *Lowrey's vehicle's engine computer 15 that sends diagnostic data along a cable 16 to the wireless appliance 13 as described at col. 6, lines 8-22 corresponds to the claimed "at least one vehicle device." A person having ordinary skill in the art would understand the cable 16 to be part of the physical transmission medium of the shared, standardized electronic buss referred to at col. 1, lines 14-25.* *"**at least one corresponding vehicle device code**" = diagnostic data collected from engine computer 15 by Lowrey's wireless appliance 13* - *During the same prior reexamination of the '278 patent referred to above, the PTAB approved a construction of the term "device codes" as "signal from a vehicle device."* See *Reexamination Control No. 90/013,851, November 13, 2018 Decision on Appeal (attached as Exhibit F), p. 8: "The district court construed the term 'device codes' as 'signal from a vehicle device,' Dist. Ct. Claim Construction Order at 17, 255—a construction that is likewise consistent with its broadest reasonable interpretation."[6] For consistency with this construction, the present request correlates the claimed "vehicle device codes" or "vehicle codes" with the diagnostic data collected from the vehicle computer 15 by Lowrey's wireless appliance 13. Namely, the diagnostic data collected from the vehicle's engine computer 15 corresponds to the claimed "at least one corresponding vehicle device code," which can include DTCs (i.e. "codes") as described at col. 1, line 63 – col. 2, line 14. This diagnostic data is "corresponding" in the sense that it is*

[6] As noted above, the passage of the claim construction order cited by the PTAB construed the term "device codes" as used in U.S. Patent Nos. 6,346,876 and 6,756,885. The claim construction order did not construe the term "vehicle device codes" as used in the '278 patent. *See* Order, pp. 15-17, *Omega Patents, LLC, v. Calamp Corp.*, No. 6:13-cv-1950-Orl-40DAB (Dist. Ct. M.D. Fla. Orlando Div., Fla.), attached as Exhibit G.

	defined by a schema specific to a given type of vehicle as described at col. 6, line 59 – col. 7, line 3. That is, the schema "describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory." The Lightner reference, which is incorporated by reference, elaborates on exactly how such diagnostic data is vehicle-specific at col. 6, lines 26-34. - *The PTAB also construed the term "different vehicles" so as not to include those with the same vehicle codes.* See *Reexamination Control No. 90/013,851, November 13, 2018 Decision on Appeal (attached as Exhibit F), pp. 8-10. The different types of vehicles contemplated by Lowrey and Lightner are "different vehicles" in a sense that is consistent with this construction, as can be understood from col. 6, line 59 - col. 7, line 3 of Lowrey and col. 6, lines 26-34 of Lightner.* Lowrey, col. 1, lines 14-25: "OBD-II systems (e.g., microcontrollers and sensors) monitor the vehicle's electrical and mechanical systems and generate data that are processed by a vehicle's engine control unit (ECU) to detect any malfunction or deterioration in the vehicle's performance. Most ECUs transmit status and diagnostic information over a ***shared, standardized electronic buss*** in the vehicle. The buss effectively functions as an on-board computer network with many processors, each of which transmits and receives data. The primary computers in this network are the vehicle's electronic-control module (ECM) and power-control module (PCM)." Lowrey, col. 1, line 63 – col. 2, line 14: "Embodiments of the invention can provide a wireless, internet-based system for monitoring a vehicle. For example, embodiments of the invention can access data from a vehicle, analyze it, and make it available to organizations (e.g. an automotive dealership or service center) over the internet so that the vehicle's performance can be analyzed accurately and in real-time. Data are accessed through the same OBD-II connector used by conventional scan tools. In this way, the invention collects data similar to those collected by scan tools, only they are collected in real-time while the vehicle is actually being driven. The invention also provides an Internet-based web site to view these data. The web site also includes functionality to modify the type of data being collected, e.g. the type of diagnostic data or the frequency at which it is collected. The data can be collected and viewed over the Internet without having to bring the vehicle in for service. ***The data include, for example, DTCs*** and mechanical and electrical data stored in the vehicle's engine computer." Lowrey, col. 6, lines 8-22: "The wireless appliance 13 disposed within the vehicle 12 collects ***diagnostic data*** from ***the vehicle's engine computer 15***. The engine computer 15 retrieves data stored in its memory and sends it along a cable 16 to the wireless appliance 13. The appliance 13 typically connects to the OBD-II connector located under the dash in all vehicles manufactured after 1996. It includes a data-collection component (not shown in the figure) that formats the data in a packet and then passes the packet to a data-transmission

	component, which sends it through a cable 17 to an antenna 14. To generate the data, the wireless appliance 13 queries the vehicle's computer 15 at a first time interval (e.g. every 20 seconds), and transmits a data set at a longer time interval (e.g. every 10 minutes). These time intervals are specified in a data-collection 'schema', described in more detail below." Lowrey, col. 6, line 59 - col. 7, line 3: "The ***schema*** is essentially a 'map' that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory. A ***schema specific to a given type of vehicle*** is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle (step 22 in FIG. 2). During operation, the appliance communicates with the vehicle's engine computer as described above (step 23). ***The appliance collects diagnostic data defined by the schema***, formats these data in a data packet, and then sends an outgoing packet over the airlink to a wireless network (step 24)." Lightner, col. 6, lines 26-34: "***Depending on the make and model of the vehicle***, the data packet can contain hundreds of datum that describe, e.g.: i) basic properties of the power train (e.g., emission levels, fuel-system status, engine temperature, speed and odometer readings, anti-lock brake status, RPMs, fuel and intake manifold pressure); and ii) ***manufacturer-specific information*** (e.g., status of the door locks, airbags, and entertainment center). In total, for most vehicles there are typically more than 300 datum that can be included in the data packet."
a **downloading interface** for permitting downloading of **enabling data** related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller;	*"**downloading interface**" = data-transmission component of Lowrey's wireless appliance* - *Lowrey's data-transmission component of the wireless appliance 13, which receives an incoming data packet as described in Lowrey's Abstract, corresponds to the claimed "downloading interface."* *"**enabling data**" = Lowrey's schema or data packet containing the schema* - *During the same prior reexamination of the '278 patent referred to above, the PTAB broadly construed the term "enabling data," noting three examples of enabling data at col. 24, lines 9-13 of the '278 patent and pointing out that the specification introduces these examples with permissive and exemplary language.* See *Reexamination Control No. 90/013,851, November 13, 2018 Decision on Appeal (attached as Exhibit F), p. 12: "Our emphasis on the permissive and exemplary language in this passage underscores that enabling data is not limited to these three alternatives." The PTAB goes on to explain, on pp. 12-13, "But despite this non-limiting description, what is clear from Appellant's disclosure is that downloading enabling data via the recited interface enables the recited controller to use a* particular *vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code." In accordance with this construction, Lowrey's schema, or the data packet containing the schema (*see *col. 7, lines 19-26), may be*

	regarded as the claimed "enabling data" because it describes the diagnostic data to collect and its corresponding location in the computer's memory. By describing the data to collect and its location, the schema enables the wireless appliance 13 to collect that particular data, i.e., to use that particular vehicle device code from among plural such codes for different vehicles corresponding to different schemas. Lowrey, col. 5, lines 10-14: "Moreover, software schemas that update the type or frequency of the vehicle's data can be directly ***downloaded*** to specific wireless appliances or groups of wireless appliances (corresponding, e.g., to a fleet of vehicles or a group of vehicles having the same year, make, or model)." Lowrey, col. 6, line 59 - col. 7, line 3: "***The schema is essentially a 'map' that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory***. A schema specific to a given type of vehicle is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle (step 22 in FIG. 2). During operation, the appliance communicates with the vehicle's engine computer as described above (step 23). ***The appliance collects diagnostic data defined by the schema***, formats these data in a data packet, and then sends an outgoing packet over the airlink to a wireless network (step 24)." Lowrey, col. 7, lines 19-26: "Based on the analysis, the technician may decide that additional data are required, or that data need to be collected and transmitted at a higher or lower frequency. In this case the technician uses the web site to select a new schema (step 32) and then ***sends an incoming data packet that includes a new schema over the wireless network to the wireless appliance*** included in the vehicle being diagnosed (step 34)." Lowrey, Abstract: "The wireless appliance features: ... a data-transmission component, in electrical communication with the data-collection electronics, configured to transmit an outgoing data packet comprising the diagnostic data over a network ***and receive over the same network an incoming data packet that modifies the communication software***."
said downloading interface comprising a **connector** for temporary connection to a **downloading device**.	*"**connector**" = the transmit/receive functionality of Lowrey's data-transmission component (*see *col. 2, lines 18-22)* *"**downloading device**" = Lowrey's host computer system 5 (*see *col. 2, lines 18-22 and col. 6, lines 28-38)* Lowrey, col. 2, lines 18-22: "The wireless appliance includes a ***data-transmission component*** configured to ***transmit data associated with the operational characteristics over a network to a host computer system***, and to ***receive over the network data from the host computer system***." Lowrey, col. 6, lines 28-38: "The ***host computer system 5***, for example, may include multiple computers, software pieces, and other signal-processing and switching equipment, such as routers and digital signal processors. Data are typically transferred from the wireless network 4 to host computer system 5

	through a TCP/IP-based connection, or with a dedicated digital leased line (e.g., a frame-relay circuit or a digital line running an x0.25 protocol). The host computer system 5 also hosts a web site 6 using conventional computer hardware (e.g. computer servers for a database and the web site) and software (e.g., web server and database software)."
14. The multi-vehicle compatible tracking unit according to claim 13 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.	*The collected diagnostic data, which corresponds to the "at least one vehicle code,"[7] is "for reading from the at least one vehicle device" in the sense that it provides the desired information from the engine computer 15 about the state of the vehicle. For example, a 5-digit DTC may "indicate a specific problem with the vehicle" as described at col. 1, lines 11-36.* Lowrey, col. 1, lines 11-36: "The Environmental Protection Agency (EPA) requires vehicle manufacturers to install on-board diagnostics (OBD-II) for monitoring light-duty automobiles and trucks beginning with model year 1996. OBD-II systems (e.g., microcontrollers and sensors) monitor the vehicle's electrical and mechanical systems and generate data that are processed by a vehicle's engine control unit (ECU) to detect any malfunction or deterioration in the vehicle's performance. Most ECUs transmit ***status and diagnostic information*** over a shared, standardized electronic buss in the vehicle. The buss effectively functions as an on-board computer network with many processors, each of which transmits and receives data. The primary computers in this network are the vehicle's electronic-control module (ECM) and power-control module (PCM). The ECM typically monitors engine functions (e.g., the cruise-control module, spark controller, exhaust/gas recirculator), while the PCM monitors the vehicle's power train (e.g., its engine, transmission, and braking systems). Data available from the ECM and PCM include vehicle speed, fuel level, engine temperature, and intake manifold pressure. In addition, in response to input data, the ECU also generates ***5-digit 'diagnostic trouble codes' (DTCs) that indicate a specific problem with the vehicle***. The presence of a DTC in the memory of a vehicle's ECU typically results in illumination of the 'Service Engine Soon' light present on the dashboard of most vehicles." *The collected diagnostic data may additionally be regarded as "for reading from the at least one vehicle device" in the sense that it may inform a technician about what additional data to collect as described at col. 7, lines 14-43, which may result in collection of a "revised set of data," that is relevant to a DTC registered by the vehicle. This use of the collected diagnostic data for comparison with later-collected data or for collecting additional relevant data (e.g. "drilling down"), and thus "for reading," is elaborated on at col. 3, line 22 – col. 4, line 8 and col. 8, lines 35-50 of the Lightner reference, which is incorporated by reference.*

[7] The claims of the '278 patent appear to use "at least one vehicle code" and "at least one vehicle device code" interchangeably, with claim 14 being the first occurrence of "at least one vehicle code" in the chain of dependency beginning with independent claim 13. The term is introduced as part of the phrase "the corresponding at least one vehicle code," which has no antecedent basis other than "at least one corresponding vehicle device code" in claim 13.

	Lowrey, col. 7, lines 14-43: "In one mode of operation, a technician working at a vehicle-service center logs into the web site and analyzes the data set corresponding to a particular vehicle to diagnose a potential mechanical or electrical problem (step 30). Specific web pages that display the data set are shown in FIGS. 5-7, below. ***Based on the analysis, the technician may decide that additional data are required, or that data need to be collected and transmitted at a higher or lower frequency.*** In this case the technician uses the web site to select a new schema (step 32) and then sends an incoming data packet that includes a new schema over the wireless network to the wireless appliance included in the vehicle being diagnosed (step 34). In typical applications, the vehicle is specifically addressed using a serial number that corresponds to the data-transmitting component. This serial number is typically an 8 or 10-digit number that functions effectively as a 'phone number' corresponding to the data-transmitting component. This number is included in the data packet, and is used by the wireless network to transfer the packet to the host vehicle (step 35). The host vehicle receives the packet and processes it to extract the new data-collection schema (step 36). ***The wireless appliance uses the updated schema to extract a revised set of data from the vehicle's engine computer, or send out data at a revised frequency (step 38).*** In other applications, ***the new schema can be used to query a set of data that is relevant to a DTC registered by the vehicle***, or to 'clear' a DTC when it is deemed to no longer be problematic. Once these data are collected, the method 21 can then be repeated as described above to further diagnose the vehicle." Lightner, col. 3, line 22 – col. 4, line 8: "The generating step typically includes generating data encoded in a digital format using the vehicle's electronic control unit (ECM) and/or power control unit (PCM). The data, for example, describes the vehicle's mileage, exhaust emissions, engine performance, engine temperature, coolant temperature, intake-manifold pressure, engine-performance tuning parameters, alarm status, accelerometer status, cruise-control status, fuel-injector performance, spark-plug timing, and/or a status of an anti-lock braking system. The data can also be a DTC or related code. The analyzing step features extracting data from the transmitted data packet, and then storing the data in a computer memory or database. Once stored, the data is processed in a variety of ways. For example, the processing can simply involve determining the vehicle's odometer reading, and then comparing this reading to a schedule that lists recommended, mileage-dependent service events (e.g., a 5000-mile tune-up). Other algorithms include those that ***compare current data with data collected at an earlier time to dynamically characterize the performance of the vehicle***... … In another embodiment, the method additionally includes the step of sending ***a second data packet*** from the host computer system over an airlink to the wireless communications system and then to the vehicle's data collector/router. In this case, the second data packet is processed by the microprocessor in the data collector/router to generate a signal that is sent to at least one of the vehicle's microcontrollers. There, the signal is processed and used, for example to adjust a setting in the particular microcontroller. The signal can also be used to update or distribute new software or firmware configurations

	to one or more of the vehicle's microcontrollers. In still other embodiments, ***the signal can be used to make 'tailored' readings of the vehicle's diagnostic information, e.g. to perform complex diagnoses (sometimes called 'drilling down')*** and isolate malfunctioning components in the vehicle's mechanical or electrical systems." Lightner, col. 8, lines 35-50: "All the data (e.g. the vehicle's mileage collected at different time or mileage intervals) can be posted directly on a Web page on the Web server (step 162) where it is accessible by the end-user through the Internet. ***The data can also be analyzed further. For example, a current odometer reading can be compared to one recorded at an earlier date (step 160) to determine how many miles the vehicle has traveled since its last oil change.*** If this value exceeds that recommended for the particular vehicle, the host computer system can notify the user through electronic mail that the vehicle requires service (step 164). The method 150 can also be used to remotely adjust settings in the vehicle's OBD-II systems. For example, at this point the host computer system could send a data packet to the vehicle to reset the trip odometer to a new value (step 166)."
15. The multi-vehicle compatible tracking unit according to claim 13 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.	*As noted above, for consistency with PTAB's construction of the term "device codes" as "signal from a vehicle device," the present request correlates the claimed "vehicle device codes" or "vehicle codes" with the diagnostic data collected from the vehicle computer 15 by Lowrey's wireless appliance 13 (*see *above discussion of claim 1, etc.). Accordingly, the present request construes claim 7 ("wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device") in the sense that the diagnostic data collected from Lowrey's vehicle computer 15 is "for writing," i.e. to be used subsequently for writing data or commands to the vehicle computer 15. In particular, the collected diagnostic data, which corresponds to the "at least one vehicle code," is "for writing to the at least one vehicle device" in the sense that the new schema selected by the technician based on the collected data can be used to 'clear' a DTC when it is deemed to no longer be problematic as described at col. 7, lines 14-43. Clearing a DTC entails communicating data to the ECU that commands the ECU to change the data stored in the vehicle's engine computer (corresponding to the "at least one vehicle device") and thus "writing." Additional examples of using the collected data for adjusting a setting in the microcontroller or updating or distributing new software or firmware configurations, and thus "for writing," are found at col. 3, line 22 – col. 4, line 8 and col. 8, lines 35-50 of the Lightner reference, which is incorporated by reference.* Lowrey, col. 7, lines 14-43: "In one mode of operation, a technician working at a vehicle-service center logs into the web site and analyzes the data set corresponding to a particular vehicle to diagnose a potential mechanical or electrical problem (step 30). Specific web pages that display the data set are shown in FIGS. 5-7, below. ***Based on the analysis, the technician may decide that additional data are required, or that data need to be collected and transmitted at a higher or lower frequency.*** In this case the technician uses the web site to select a new schema (step 32) and then sends an incoming data

	packet that includes a new schema over the wireless network to the wireless appliance included in the vehicle being diagnosed (step 34). In typical applications, the vehicle is specifically addressed using a serial number that corresponds to the data-transmitting component. This serial number is typically an 8 or 10-digit number that functions effectively as a 'phone number' corresponding to the data-transmitting component. This number is included in the data packet, and is used by the wireless network to transfer the packet to the host vehicle (step 35). The host vehicle receives the packet and processes it to extract the new data-collection schema (step 36). The wireless appliance uses the updated schema to extract a revised set of data from the vehicle's engine computer, or send out data at a revised frequency (step 38). In other applications, ***the new schema can be used to query a set of data that is relevant to a DTC registered by the vehicle, or to 'clear' a DTC when it is deemed to no longer be problematic.*** Once these data are collected, the method 21 can then be repeated as described above to further diagnose the vehicle." Lightner, col. 3, line 22 – col. 4, line 8: "The generating step typically includes generating data encoded in a digital format using the vehicle's electronic control unit (ECM) and/or power control unit (PCM). The data, for example, describes the vehicle's mileage, exhaust emissions, engine performance, engine temperature, coolant temperature, intake-manifold pressure, engine-performance tuning parameters, alarm status, accelerometer status, cruise-control status, fuel-injector performance, spark-plug timing, and/or a status of an anti-lock braking system. The data can also be a DTC or related code. The analyzing step features extracting data from the transmitted data packet, and then storing the data in a computer memory or database. Once stored, the data is processed in a variety of ways… In another embodiment, the method additionally includes the step of sending ***a second data packet*** from the host computer system over an airlink to the wireless communications system and then to the vehicle's data collector/router. In this case, the second data packet is processed by the microprocessor in the data collector/router to generate a signal that is sent to at least one of the vehicle's microcontrollers. There, the signal is processed and used, for example ***to adjust a setting in the particular microcontroller***. The signal can also be used ***to update or distribute new software or firmware configurations to one or more of the vehicle's microcontrollers***…" Lightner, col. 8, lines 35-50: "All the data (e.g. the vehicle's mileage collected at different time or mileage intervals) can be posted directly on a Web page on the Web server (step 162) where it is accessible by the end-user through the Internet. The data can also be analyzed further. For example, a current odometer reading can be compared to one recorded at an earlier date (step 160) to determine how many miles the vehicle has traveled since its last oil change. If this value exceeds that recommended for the particular vehicle, the host computer system can notify the user through electronic mail that the vehicle requires service (step 164). ***The method 150 can also be used to remotely adjust settings in the vehicle's OBD-II systems. For example, at this point the host computer system could send a data packet to the vehicle to reset the trip odometer to a new value (step 166).***"

16. The multi-vehicle compatible tracking unit according to claim 13 wherein said downloading interface is also for permitting downloading of **at least one programming instruction** for said multi-vehicle compatible controller.	*"**at least one programming instruction**" = Lowrey's incoming data packet that modifies the communication software (*see *Abstract)* - *In a District Court claim construction order, the "programming instruction" was construed as "Code which instructs the controller to perform an operation."* See *Order, pp. 23-24,* Omega Patents, LLC, v. Calamp Corp.*, No. 6:13-cv-1950-Orl-40DAB (Dist. Ct. M.D. Fla. Orlando Div., Fla.), attached as Exhibit G. Lowrey's incoming data packet that modifies the communication software, as describe in the Abstract, is consistent with this construction.* Lowrey, Abstract: "The wireless appliance features: ... a data-transmission component, in electrical communication with the data-collection electronics, configured to transmit an outgoing data packet comprising the diagnostic data over a network and receive over the same network an incoming data packet that ***modifies the communication software***."
17. The multi-vehicle compatible tracking unit according to claim 13 further comprising a **remote transmitter**; and	*"**remote transmitter**" = Lowrey's "hand-held device, e.g. a cellular telephone or personal digital assistant" (*see *col. 3, lines 56-63)* Lowrey, col. 3, lines 56-63: "The system can also include a secondary computer system that connects to the host computer system through the Internet to display the web site. Alternatively, the system includes a ***hand-held device***, e.g. a cellular telephone or personal digital assistant, which connects to the host computer system through the Internet. The host computer system can also be configured to send an electronic mail message that includes all or part of the vehicle diagnostic data."
wherein said multi-vehicle compatible controller also performs **at least one vehicle remote control function** responsive to said remote transmitter.	*"**at least one vehicle remote control function**" = remote control of Lowrey's vehicle (*see *col. 11, lines 8-13)* Lowrey, col. 11, lines 8-13: "In still other embodiments, data processed using the above-described systems can be used for: remote billing/payment of tolls; remote smog and emissions checks; remote payment of parking/valet services; ***remote control of the vehicle (e.g., in response to theft or traffic/registration violations)***; and general survey information."
18. A **multi-vehicle compatible tracking unit** for a **vehicle** comprising a **vehicle data bus** extending throughout the vehicle, the multi-vehicle compatible vehicle tracking unit comprising:	*"**multi-vehicle compatible tracking unit**" = Lowrey's wireless appliance 13* - *Lowrey's wireless appliance 13 (see Fig. 1) corresponds to the claimed "multi-vehicle compatible tracking unit." As noted by Lowrey at col. 10, lines 56-61, the wireless appliance 13 may include hardware for global-positioning systems (GPS) so that the location of the vehicle can be monitored along with its data. Therefore, the wireless appliance 13 constitutes a tracking unit. Further, the wireless appliance 13 is "multi-vehicle compatible" because it can be easily installed in nearly every vehicle with an OBD-II connector as described at col. 4, lines 59-63. The multi-vehicle compatibility of an OBD-II connector is described in greater detail at col. 6, line 53 – col. 7, line 7 of U.S. Patent No. 6,636,790 to Lightner et al. ("the Lightner reference"), which is*

	incorporated by reference in Lowrey and shares common inventors with Lowrey including Bruce Lightner and Larkin Hill Lowrey. *"**vehicle**" = Lowrey's vehicle 12* *"**vehicle data bus**" = Lowrey's electronic buss mentioned at col. 1, lines 14-25* - *In a District Court claim construction order, the "vehicle data bus" was construed as "wired connection for communication of digital messages among vehicle devices, with each message including one or more device addresses."* See *Order, pp. 9-12,* Omega Patents, LLC, v. Calamp Corp.*, No. 6:13-cv-1950-Orl-40DAB (Dist. Ct. M.D. Fla. Orlando Div., Fla.), attached as Exhibit G. Lowrey's electronic buss described at col. 1, lines 14-25, which "effectively functions as an on-board computer network with many processors, each of which transmits and receives data," is consistent with this construction.* Lowrey, col. 1, lines 14-25: "OBD-II systems (e.g., microcontrollers and sensors) monitor the vehicle's electrical and mechanical systems and generate data that are processed by a vehicle's engine control unit (ECU) to detect any malfunction or deterioration in the vehicle's performance. Most ECUs transmit status and diagnostic information over a ***shared, standardized electronic buss*** in the vehicle. The buss effectively functions as an on-board computer network with many processors, each of which transmits and receives data. The primary computers in this network are the vehicle's electronic-control module (ECM) and power-control module (PCM)." Lowrey, col. 4, lines 59-63: "The wireless appliance used to access and transmit the vehicle's data is small, low-cost, and ***can be easily installed in nearly every vehicle with an OBD-II connector*** in a matter of minutes. It can also be easily transferred from one vehicle to another, or easily replaced if it malfunctions." Lowrey, col. 10, lines 56-61: "In other embodiments, additional hardware can be added to the in-vehicle wireless appliance to increase the number of parameters in the transmitted data. For example, ***hardware for global-positioning systems (GPS)*** may be added so that the location of the vehicle can be monitored along with its data." Lightner, col. 6, line 53 – col. 7, line 7: "FIG. 2 shows a data collector/router 35 in electrical contact with a vehicle's OBD/ECU system 100. The two systems connect through a conventional OBD-II connector 120 typically located under the vehicle's dashboard. The data collector/router 35 is contained in a small, portable housing that plugs directly into the connector 120 and can be easily installed and replaced. The connector 120 has a serial, 16-cavity layout, with specific electrical connections in separate cavities supplying data and electrical power from the OBD/ECU system 100. The connector electrically and mechanically matches an OBD-II interface 102 in the data collector/router 35. Although the OBD-II connector 120 has a standard mechanical interface, data transmitted through it may have a format and pass through cavities that depend on the vehicle's make and model. For example, Ford and General Motors vehicles use an OBD data

	format called J1850; data in this format pass through cavities 2 and 10. Chrysler and most European and Asian manufacturers use a data format called ISO 9141-2 and pass data through cavities 7 and 15. In a third format, called J2284, data is passed through cavities 6 and 14."
a **vehicle position determining device**;	*"**vehicle position determining device**" = Lowrey's hardware for global-positioning systems (GPS)* - *Lowrey's hardware for global-positioning systems (GPS), which can be added so that the location of the vehicle can be monitored along with its data as described at col. 10, lines 56-61, corresponds to the claimed "vehicle position determining device."* Lowrey, col. 10, lines 56-61: "In other embodiments, additional hardware can be added to the in-vehicle wireless appliance to increase the number of parameters in the transmitted data. For example, hardware for global-positioning systems (GPS) may be added so that the location of the vehicle can be monitored along with its data."
a **wireless communications device**;	*"**wireless communications device**" = data-transmission/data-transmitting component of Lowrey's appliance 13* - *Lowrey's data-transmission component (*see *col. 6, lines 8-22) or data-transmitting component (*see *col. 2, lines 55-59) of the appliance 13 corresponds to the claimed "wireless communications device." As described at col. 2, lines 55-59, for example, the data-transmitting component may be a radio or cellular modem and sends out the data packet over an existing wireless network.* Lowrey, col. 2, lines 55-59: "The 'wireless appliance' used in the above-described invention features a ***data-transmitting component*** (e.g. a radio or cellular modem) that sends out the data packet over an existing wireless network (e.g., Cingular's Mobitex network)." Lowrey, col. 6, lines 8-22: "The wireless appliance 13 disposed within the vehicle 12 collects diagnostic data from the vehicle's engine computer 15. The engine computer 15 retrieves data stored in its memory and sends it along a cable 16 to the wireless appliance 13. The appliance 13 typically connects to the OBD-II connector located under the dash in all vehicles manufactured after 1996. It includes a data-collection component (not shown in the figure) that formats the data in a packet and then passes the packet to a ***data-transmission component***, which sends it through a cable 17 to an antenna 14. To generate the data, the wireless appliance 13 queries the vehicle's computer 15 at a first time interval (e.g. every 20 seconds), and transmits a data set at a longer time interval (e.g. every 10 minutes). These time intervals are specified in a data-collection 'schema', described in more detail below."
a **multi-vehicle compatible controller** for cooperating with said vehicle position determining device and said wireless communications	*"**multi-vehicle compatible controller**" = data-collection component of Lowrey's appliance 13* - *During one of the prior reexaminations of the '278 patent, the Patent Trial and Appeal Board (PTAB) approved a construction of the term "multi-vehicle compatible controller" as "electronic circuitry that performs one or more control functions, and can operate with more than one vehicle."* See *Reexamination Control*

device to send vehicle position information;	*No. 90/013,851, November 13, 2018 Decision on Appeal (attached as Exhibit F), pp. 7-8. Consistent with this construction, Lowrey's data-collection component of the wireless appliance 13 (*see *col. 6, lines 8-22), which includes a microcontroller as described at col. 6, lines 55-59, corresponds to the claimed "multi-vehicle compatible controller." The data-collection component is "multi-vehicle compatible" because the wireless component 13 can be easily installed in nearly every vehicle with an OBD-II connector as described at col. 4, lines 59-63. Thus, it "can operate with more than one vehicle" in accordance with the construction approved by the PTAB. The data collection component of the wireless component 13 may be regarded as cooperating with the "vehicle position determining device" in the sense that the additional GPS hardware described at col. 10, lines 56-61 is added to increase the number of parameters in the transmitted data so that the location of the vehicle can be monitored.* Lowrey, col. 4, lines 59-63: "The wireless appliance used to access and transmit the vehicle's data is small, low-cost, and ***can be easily installed in nearly every vehicle with an OBD-II connector*** in a matter of minutes. It can also be easily transferred from one vehicle to another, or easily replaced if it malfunctions." Lowrey, col. 6, lines 8-22: "The wireless appliance 13 disposed within the vehicle 12 collects diagnostic data from the vehicle's engine computer 15. The engine computer 15 retrieves data stored in its memory and sends it along a cable 16 to the wireless appliance 13. The appliance 13 typically connects to the OBD-II connector located under the dash in all vehicles manufactured after 1996. It includes a ***data-collection component*** (not shown in the figure) that formats the data in a packet and then passes the packet to a data-transmission component, which sends it through a cable 17 to an antenna 14. To generate the data, the wireless appliance 13 queries the vehicle's computer 15 at a first time interval (e.g. every 20 seconds), and transmits a data set at a longer time interval (e.g. every 10 minutes). These time intervals are specified in a data-collection 'schema', described in more detail below." Lowrey, col. 6, lines 55-59: "As described above, the wireless appliance includes a data-collection component that, in turn, includes a ***microcontroller*** that has software and a data-collection 'schema' loaded in the microcontroller's memory." Lowrey, col. 10, lines 56-61: "In other embodiments, additional hardware can be added to the in-vehicle wireless appliance ***to increase the number of parameters in the transmitted data***. For example, hardware for global-positioning systems (GPS) may be added so that the ***location of the vehicle*** can be monitored along with its data."
said multi-vehicle compatible controller to be coupled to the vehicle data bus for	*"**at least one vehicle device**" = engine computer 15 of Lowrey's vehicle* - *Lowrey's vehicle's engine computer 15 that sends diagnostic data along a cable 16 to the wireless appliance 13 as described at col. 6, lines 8-22 corresponds to the claimed "at least one vehicle device."*

communication thereover with **at least one vehicle device** using **at least one corresponding vehicle device code** from among a plurality thereof for different vehicles; and	*A person having ordinary skill in the art would understand the cable 16 to be part of the physical transmission medium of the shared, standardized electronic buss referred to at col. 1, lines 14-25.* *"**at least one corresponding vehicle device code**" = diagnostic data collected from engine computer 15 by Lowrey's wireless appliance 13* - *During the same prior reexamination of the '278 patent referred to above, the PTAB approved a construction of the term "device codes" as "signal from a vehicle device."* See *Reexamination Control No. 90/013,851, November 13, 2018 Decision on Appeal (attached as Exhibit F), p. 8: "The district court construed the term 'device codes' as 'signal from a vehicle device,' Dist. Ct. Claim Construction Order at 17, 255—a construction that is likewise consistent with its broadest reasonable interpretation."[8] For consistency with this construction, the present request correlates the claimed "vehicle device codes" or "vehicle codes" with the diagnostic data collected from the vehicle computer 15 by Lowrey's wireless appliance 13. Namely, the diagnostic data collected from the vehicle's engine computer 15 corresponds to the claimed "at least one corresponding vehicle device code," which can include DTCs (i.e. "codes") as described at col. 1, line 63 – col. 2, line 14. This diagnostic data is "corresponding" in the sense that it is defined by a schema specific to a given type of vehicle as described at col. 6, line 59 – col. 7, line 3. That is, the schema "describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory." The Lightner reference, which is incorporated by reference, elaborates on exactly how such diagnostic data is vehicle-specific at col. 6, lines 26-34.* - *The PTAB also construed the term "different vehicles" so as not to include those with the same vehicle codes.* See *Reexamination Control No. 90/013,851, November 13, 2018 Decision on Appeal (attached as Exhibit F), pp. 8-10. The different types of vehicles contemplated by Lowrey and Lightner are "different vehicles" in a sense that is consistent with this construction, as can be understood from col. 6, line 59 - col. 7, line 3 of Lowrey and col. 6, lines 26-34 of Lightner.* Lowrey, col. 1, lines 14-25: "OBD-II systems (e.g., microcontrollers and sensors) monitor the vehicle's electrical and mechanical systems and generate data that are processed by a vehicle's engine control unit (ECU) to detect any malfunction or deterioration in the vehicle's performance. Most ECUs transmit status and diagnostic information over a ***shared, standardized electronic buss*** in the vehicle. The buss effectively functions as an on-board computer network

[8] As noted above, the passage of the claim construction order cited by the PTAB construed the term "device codes" as used in U.S. Patent Nos. 6,346,876 and 6,756,885. The claim construction order did not construe the term "vehicle device codes" as used in the '278 patent. *See* Order, pp. 15-17, *Omega Patents, LLC, v. Calamp Corp.*, No. 6:13-cv-1950-Orl-40DAB (Dist. Ct. M.D. Fla. Orlando Div., Fla.), attached as Exhibit G.

	with many processors, each of which transmits and receives data. The primary computers in this network are the vehicle's electronic-control module (ECM) and power-control module (PCM)." Lowrey, col. 1, line 63 – col. 2, line 14: "Embodiments of the invention can provide a wireless, internet-based system for monitoring a vehicle. For example, embodiments of the invention can access data from a vehicle, analyze it, and make it available to organizations (e.g. an automotive dealership or service center) over the internet so that the vehicle's performance can be analyzed accurately and in real-time. Data are accessed through the same OBD-II connector used by conventional scan tools. In this way, the invention collects data similar to those collected by scan tools, only they are collected in real-time while the vehicle is actually being driven. The invention also provides an Internet-based web site to view these data. The web site also includes functionality to modify the type of data being collected, e.g. the type of diagnostic data or the frequency at which it is collected. The data can be collected and viewed over the Internet without having to bring the vehicle in for service. ***The data include, for example, DTCs*** and mechanical and electrical data stored in the vehicle's engine computer." Lowrey, col. 6, lines 8-22: "The wireless appliance 13 disposed within the vehicle 12 collects ***diagnostic data*** from ***the vehicle's engine computer 15***. The engine computer 15 retrieves data stored in its memory and sends it along a cable 16 to the wireless appliance 13. The appliance 13 typically connects to the OBD-II connector located under the dash in all vehicles manufactured after 1996. It includes a data-collection component (not shown in the figure) that formats the data in a packet and then passes the packet to a data-transmission component, which sends it through a cable 17 to an antenna 14. To generate the data, the wireless appliance 13 queries the vehicle's computer 15 at a first time interval (e.g. every 20 seconds), and transmits a data set at a longer time interval (e.g. every 10 minutes). These time intervals are specified in a data-collection 'schema', described in more detail below." Lowrey, col. 6, line 59 - col. 7, line 3: "The ***schema*** is essentially a 'map' that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory. A ***schema specific to a given type of vehicle*** is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle (step 22 in FIG. 2). During operation, the appliance communicates with the vehicle's engine computer as described above (step 23). ***The appliance collects diagnostic data defined by the schema***, formats these data in a data packet, and then sends an outgoing packet over the airlink to a wireless network (step 24)." Lightner, col. 6, lines 26-34: "***Depending on the make and model of the vehicle***, the data packet can contain hundreds of datum that describe, e.g.: i) basic properties of the power train (e.g., emission levels, fuel-system status, engine temperature, speed and odometer readings, anti-lock brake status, RPMs, fuel and intake manifold pressure); and ii) ***manufacturer-specific information*** (e.g., status of the door locks, airbags, and entertainment center). In total, for

	most vehicles there are typically more than 300 datum that can be included in the data packet."
a **downloading interface** for permitting downloading of **enabling data** related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller;	*"**downloading interface**" = data-transmission component of Lowrey's wireless appliance* - *Lowrey's data-transmission component of the wireless appliance 13, which receives an incoming data packet as described in Lowrey's Abstract, corresponds to the claimed "downloading interface."* *"**enabling data**" = Lowrey's schema or data packet containing the schema* - *During the same prior reexamination of the '278 patent referred to above, the PTAB broadly construed the term "enabling data," noting three examples of enabling data at col. 24, lines 9-13 of the '278 patent and pointing out that the specification introduces these examples with permissive and exemplary language.* See *Reexamination Control No. 90/013,851, November 13, 2018 Decision on Appeal (attached as Exhibit F), p. 12: "Our emphasis on the permissive and exemplary language in this passage underscores that enabling data is not limited to these three alternatives." The PTAB goes on to explain, on pp. 12-13, "But despite this non-limiting description, what is clear from Appellant's disclosure is that downloading enabling data via the recited interface enables the recited controller to use a* particular *vehicle device code from among plural such codes for different vehicles by providing either (1) the code itself to the controller, or (2) data that otherwise enables the controller to select or generate the code." In accordance with this construction, Lowrey's schema, or the data packet containing the schema (*see *col. 7, lines 19-26), may be regarded as the claimed "enabling data" because it describes the diagnostic data to collect and its corresponding location in the computer's memory. By describing the data to collect and its location, the schema enables the wireless appliance 13 to collect that particular data, i.e., to use that particular vehicle device code from among plural such codes for different vehicles corresponding to different schemas.* Lowrey, col. 5, lines 10-14: "Moreover, software schemas that update the type or frequency of the vehicle's data can be directly ***downloaded*** to specific wireless appliances or groups of wireless appliances (corresponding, e.g., to a fleet of vehicles or a group of vehicles having the same year, make, or model)." Lowrey, col. 6, line 59 - col. 7, line 3: "***The schema is essentially a 'map' that describes the data that the wireless appliance collects from the vehicle's engine computer, and its corresponding location in the computer's memory***. A schema specific to a given type of vehicle is typically loaded onto the microcontroller before the wireless appliance is installed in the vehicle (step 22 in FIG. 2). During operation, the appliance communicates with the vehicle's engine computer as described above (step 23). ***The appliance collects diagnostic data defined by the schema***, formats these data in a data packet, and then sends an outgoing packet over the airlink to a wireless network (step 24)."

	Lowrey, col. 7, lines 19-26: "Based on the analysis, the technician may decide that additional data are required, or that data need to be collected and transmitted at a higher or lower frequency. In this case the technician uses the web site to select a new schema (step 32) and then ***sends an incoming data packet that includes a new schema over the wireless network to the wireless appliance*** included in the vehicle being diagnosed (step 34)." Lowrey, Abstract: "The wireless appliance features: ... a data-transmission component, in electrical communication with the data-collection electronics, configured to transmit an outgoing data packet comprising the diagnostic data over a network ***and receive over the same network an incoming data packet that modifies the communication software***."
said downloading interface comprising a **wireless receiver** for temporary connection to a **downloading device**.	*"**wireless receiver**" = the receive functionality of Lowrey's data-transmission component (*see *col. 2, lines 18-22)* *"**downloading device**" = Lowrey's host computer system 5 (*see *col. 2, lines 18-22 and col. 6, lines 28-38)* Lowrey, col. 2, lines 18-22: "The wireless appliance includes a ***data-transmission component*** configured to transmit data associated with the operational characteristics over a network to a host computer system, and to ***receive over the network data from the host computer system***." Lowrey, col. 6, lines 28-38: "The ***host computer system 5***, for example, may include multiple computers, software pieces, and other signal-processing and switching equipment, such as routers and digital signal processors. Data are typically transferred from the wireless network 4 to host computer system 5 through a TCP/IP-based connection, or with a dedicated digital leased line (e.g., a frame-relay circuit or a digital line running an x0.25 protocol). The host computer system 5 also hosts a web site 6 using conventional computer hardware (e.g. computer servers for a database and the web site) and software (e.g., web server and database software)."
19. The multi-vehicle compatible tracking unit according to claim 18 wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.	*The collected diagnostic data, which corresponds to the "at least one vehicle code,"[9] is "for reading from the at least one vehicle device" in the sense that it provides the desired information from the engine computer 15 about the state of the vehicle. For example, a 5-digit DTC may "indicate a specific problem with the vehicle" as described at col. 1, lines 11-36.* Lowrey, col. 1, lines 11-36: "The Environmental Protection Agency (EPA) requires vehicle manufacturers to install on-board diagnostics (OBD-II) for monitoring light-duty automobiles and trucks beginning with model year 1996. OBD-II systems (e.g., microcontrollers and sensors) monitor the vehicle's

[9] The claims of the '278 patent appear to use "at least one vehicle code" and "at least one vehicle device code" interchangeably, with claim 19 being the first occurrence of "at least one vehicle code" in the chain of dependency beginning with independent claim 18. The term is introduced as part of the phrase "the corresponding at least one vehicle code," which has no antecedent basis other than "at least one corresponding vehicle device code" in claim 18.

	electrical and mechanical systems and generate data that are processed by a vehicle's engine control unit (ECU) to detect any malfunction or deterioration in the vehicle's performance. Most ECUs transmit ***status and diagnostic information*** over a shared, standardized electronic buss in the vehicle. The buss effectively functions as an on-board computer network with many processors, each of which transmits and receives data. The primary computers in this network are the vehicle's electronic-control module (ECM) and power-control module (PCM). The ECM typically monitors engine functions (e.g., the cruise-control module, spark controller, exhaust/gas recirculator), while the PCM monitors the vehicle's power train (e.g., its engine, transmission, and braking systems). Data available from the ECM and PCM include vehicle speed, fuel level, engine temperature, and intake manifold pressure. In addition, in response to input data, the ECU also generates ***5-digit 'diagnostic trouble codes' (DTCs) that indicate a specific problem with the vehicle***. The presence of a DTC in the memory of a vehicle's ECU typically results in illumination of the 'Service Engine Soon' light present on the dashboard of most vehicles." *The collected diagnostic data may additionally be regarded as "for reading from the at least one vehicle device" in the sense that it may inform a technician about what additional data to collect as described at col. 7, lines 14-43, which may result in collection of a "revised set of data," that is relevant to a DTC registered by the vehicle. This use of the collected diagnostic data for comparison with later-collected data or for collecting additional relevant data (e.g. "drilling down"), and thus "for reading," is elaborated on at col. 3, line 22 – col. 4, line 8 and col. 8, lines 35-50 of the Lightner reference, which is incorporated by reference.* Lowrey, col. 7, lines 14-43: "In one mode of operation, a technician working at a vehicle-service center logs into the web site and analyzes the data set corresponding to a particular vehicle to diagnose a potential mechanical or electrical problem (step 30). Specific web pages that display the data set are shown in FIGS. 5-7, below. ***Based on the analysis, the technician may decide that additional data are required, or that data need to be collected and transmitted at a higher or lower frequency.*** In this case the technician uses the web site to select a new schema (step 32) and then sends an incoming data packet that includes a new schema over the wireless network to the wireless appliance included in the vehicle being diagnosed (step 34). In typical applications, the vehicle is specifically addressed using a serial number that corresponds to the data-transmitting component. This serial number is typically an 8 or 10-digit number that functions effectively as a 'phone number' corresponding to the data-transmitting component. This number is included in the data packet, and is used by the wireless network to transfer the packet to the host vehicle (step 35). The host vehicle receives the packet and processes it to extract the new data-collection schema (step 36). ***The wireless appliance uses the updated schema to extract a revised set of data from the vehicle's engine computer, or send out data at a revised frequency (step 38).*** In other applications, ***the new schema can be used to query a set of data that is relevant to a DTC registered by the vehicle***, or to 'clear' a DTC when it is deemed to no longer be problematic. Once these data are collected, the method 21 can then be

	repeated as described above to further diagnose the vehicle." Lightner, col. 3, line 22 – col. 4, line 8: "The generating step typically includes generating data encoded in a digital format using the vehicle's electronic control unit (ECM) and/or power control unit (PCM). The data, for example, describes the vehicle's mileage, exhaust emissions, engine performance, engine temperature, coolant temperature, intake-manifold pressure, engine-performance tuning parameters, alarm status, accelerometer status, cruise-control status, fuel-injector performance, spark-plug timing, and/or a status of an anti-lock braking system. The data can also be a DTC or related code. The analyzing step features extracting data from the transmitted data packet, and then storing the data in a computer memory or database. Once stored, the data is processed in a variety of ways. For example, the processing can simply involve determining the vehicle's odometer reading, and then comparing this reading to a schedule that lists recommended, mileage-dependent service events (e.g., a 5000-mile tune-up). Other algorithms include those that ***compare current data with data collected at an earlier time to dynamically characterize the performance of the vehicle***... … In another embodiment, the method additionally includes the step of sending ***a second data packet*** from the host computer system over an airlink to the wireless communications system and then to the vehicle's data collector/router. In this case, the second data packet is processed by the microprocessor in the data collector/router to generate a signal that is sent to at least one of the vehicle's microcontrollers. There, the signal is processed and used, for example to adjust a setting in the particular microcontroller. The signal can also be used to update or distribute new software or firmware configurations to one or more of the vehicle's microcontrollers. In still other embodiments, ***the signal can be used to make 'tailored' readings of the vehicle's diagnostic information, e.g. to perform complex diagnoses (sometimes called 'drilling down')*** and isolate malfunctioning components in the vehicle's mechanical or electrical systems." Lightner, col. 8, lines 35-50: "All the data (e.g. the vehicle's mileage collected at different time or mileage intervals) can be posted directly on a Web page on the Web server (step 162) where it is accessible by the end-user through the Internet. ***The data can also be analyzed further. For example, a current odometer reading can be compared to one recorded at an earlier date (step 160) to determine how many miles the vehicle has traveled since its last oil change.*** If this value exceeds that recommended for the particular vehicle, the host computer system can notify the user through electronic mail that the vehicle requires service (step 164). The method 150 can also be used to remotely adjust settings in the vehicle's OBD-II systems. For example, at this point the host computer system could send a data packet to the vehicle to reset the trip odometer to a new value (step 166)."
20. The multi-vehicle compatible tracking unit according to claim	*As noted above, for consistency with PTAB's construction of the term "device codes" as "signal from a vehicle device," the present request correlates the claimed "vehicle device codes" or "vehicle codes" with the diagnostic data*

18 wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device.	*collected from the vehicle computer 15 by Lowrey's wireless appliance 13 (see above discussion of claim 1, etc.). Accordingly, the present request construes claim 7 ("wherein the corresponding at least one vehicle code is for writing to the at least one vehicle device") in the sense that the diagnostic data collected from Lowrey's vehicle computer 15 is "for writing," i.e. to be used subsequently for writing data or commands to the vehicle computer 15. In particular, the collected diagnostic data, which corresponds to the "at least one vehicle code," is "for writing to the at least one vehicle device" in the sense that the new schema selected by the technician based on the collected data can be used to 'clear' a DTC when it is deemed to no longer be problematic as described at col. 7, lines 14-43. Clearing a DTC entails communicating data to the ECU that commands the ECU to change the data stored in the vehicle's engine computer (corresponding to the "at least one vehicle device") and thus "writing." Additional examples of using the collected data for adjusting a setting in the microcontroller or updating or distributing new software or firmware configurations, and thus "for writing," are found at col. 3, line 22 – col. 4, line 8 and col. 8, lines 35-50 of the Lightner reference, which is incorporated by reference.* Lowrey, col. 7, lines 14-43: "In one mode of operation, a technician working at a vehicle-service center logs into the web site and analyzes the data set corresponding to a particular vehicle to diagnose a potential mechanical or electrical problem (step 30). Specific web pages that display the data set are shown in FIGS. 5-7, below. ***Based on the analysis, the technician may decide that additional data are required, or that data need to be collected and transmitted at a higher or lower frequency.*** In this case the technician uses the web site to select a new schema (step 32) and then sends an incoming data packet that includes a new schema over the wireless network to the wireless appliance included in the vehicle being diagnosed (step 34). In typical applications, the vehicle is specifically addressed using a serial number that corresponds to the data-transmitting component. This serial number is typically an 8 or 10-digit number that functions effectively as a 'phone number' corresponding to the data-transmitting component. This number is included in the data packet, and is used by the wireless network to transfer the packet to the host vehicle (step 35). The host vehicle receives the packet and processes it to extract the new data-collection schema (step 36). The wireless appliance uses the updated schema to extract a revised set of data from the vehicle's engine computer, or send out data at a revised frequency (step 38). In other applications, ***the new schema can be used to query a set of data that is relevant to a DTC registered by the vehicle, or to 'clear' a DTC when it is deemed to no longer be problematic.*** Once these data are collected, the method 21 can then be repeated as described above to further diagnose the vehicle." Lightner, col. 3, line 22 – col. 4, line 8: "The generating step typically includes generating data encoded in a digital format using the vehicle's electronic control unit (ECM) and/or power control unit (PCM). The data, for example, describes the vehicle's mileage, exhaust emissions, engine performance, engine temperature, coolant temperature, intake-manifold pressure, engine-performance tuning parameters, alarm status, accelerometer status, cruise-

	control status, fuel-injector performance, spark-plug timing, and/or a status of an anti-lock braking system. The data can also be a DTC or related code. The analyzing step features extracting data from the transmitted data packet, and then storing the data in a computer memory or database. Once stored, the data is processed in a variety of ways… In another embodiment, the method additionally includes the step of sending ***a second data packet*** from the host computer system over an airlink to the wireless communications system and then to the vehicle's data collector/router. In this case, the second data packet is processed by the microprocessor in the data collector/router to generate a signal that is sent to at least one of the vehicle's microcontrollers. There, the signal is processed and used, for example ***to adjust a setting in the particular microcontroller***. The signal can also be used ***to update or distribute new software or firmware configurations to one or more of the vehicle's microcontrollers***…" Lightner, col. 8, lines 35-50: "All the data (e.g. the vehicle's mileage collected at different time or mileage intervals) can be posted directly on a Web page on the Web server (step 162) where it is accessible by the end-user through the Internet. The data can also be analyzed further. For example, a current odometer reading can be compared to one recorded at an earlier date (step 160) to determine how many miles the vehicle has traveled since its last oil change. If this value exceeds that recommended for the particular vehicle, the host computer system can notify the user through electronic mail that the vehicle requires service (step 164). ***The method 150 can also be used to remotely adjust settings in the vehicle's OBD-II systems. For example, at this point the host computer system could send a data packet to the vehicle to reset the trip odometer to a new value (step 166).***"
21. The multi-vehicle compatible tracking unit according to claim 18 wherein said downloading interface is also for permitting downloading of **at least one programming instruction** for said multi-vehicle compatible controller.	*"**at least one programming instruction**" = Lowrey's incoming data packet that modifies the communication software (*see *Abstract)* - *In a District Court claim construction order, the "programming instruction" was construed as "Code which instructs the controller to perform an operation."* See *Order, pp. 23-24,* Omega Patents, LLC, v. Calamp Corp.*, No. 6:13-cv-1950-Orl-40DAB (Dist. Ct. M.D. Fla. Orlando Div., Fla.), attached as Exhibit G. Lowrey's incoming data packet that modifies the communication software, as describe in the Abstract, is consistent with this construction.* Lowrey, Abstract: "The wireless appliance features: ... a data-transmission component, in electrical communication with the data-collection electronics, configured to transmit an outgoing data packet comprising the diagnostic data over a network and receive over the same network an incoming data packet that ***modifies the communication software***."
22. The multi-vehicle compatible tracking unit according to claim 18 further comprising a **remote transmitter**;	*"**remote transmitter**" = Lowrey's "hand-held device, e.g. a cellular telephone or personal digital assistant" (*see *col. 3, lines 56-63)* Lowrey, col. 3, lines 56-63: "The system can also include a secondary computer system that connects to the host computer system through the Internet to display

	the web site. Alternatively, the system includes a ***hand-held device***, e.g. a cellular telephone or personal digital assistant, which connects to the host computer system through the Internet. The host computer system can also be configured to send an electronic mail message that includes all or part of the vehicle diagnostic data."
and wherein said multi-vehicle compatible controller also performs **at least one vehicle remote control function** responsive to said remote transmitter.	*"**at least one vehicle remote control function**" = remote control of Lowrey's vehicle (see col. 11, lines 8-13)* Lowrey, col. 11, lines 8-13: "In still other embodiments, data processed using the above-described systems can be used for: remote billing/payment of tolls; remote smog and emissions checks; remote payment of parking/valet services; ***remote control of the vehicle (e.g., in response to theft or traffic/registration violations)***; and general survey information."

(2) There is a substantial new question of patentability as to whether claims 1-22 are obvious over the Lowrey reference under 35 U.S.C. § 103.

The pertinency and manner of applying the Lowrey reference to claims 1, 2, and 4-22 is detailed in the above claim chart. In addition to there being a substantial new question as to whether these claims lack novelty over the Lowrey reference, there is a further substantial new question as to whether any of these claims, if found to be novel, are nevertheless obvious over the Lowrey reference. In this regard, alternative grounds for rejecting claims 2 as being obvious under 35 U.S.C. § 103 are provided below.

In addition, there is a substantial new question of patentability as to whether dependent claim 3 is obvious over the Lowrey reference under 35 U.S.C. § 103, as also set forth below.

2.1 Obviousness of claim 2 in view of the Lowrey reference (alternative grounds)

Claim 2 depends from claim 1 and further recites the limitation that "said downloading interface comprises a wired signal downloading interface." As shown in the above claim chart regarding claims 1 and 2, the claimed "downloading interface" reads on the data-transmission component of Lowrey's wireless appliance 13. As noted, the data-transmission component may be regarded as "compris[ing] a wired signal downloading interface" as recited in claim 2 because it comprises a connection to the cable 17 for communication using the antenna 14. That is, at least one leg of the downloading interface is wired. Claim 2 does not require the "data-transmission component" to "be" or to "consist of" the "wired signal downloading interface."

Rather, the open term "comprises" is used, admitting the possibility of wireless legs in addition to wired legs of the claimed "downloading interface."

Alternatively, even if the connection of the data-transmission component to the cable 17 is not regarded as a disclosure of a "wired signal downloading interface," there remains a substantial new question of patentability as to whether it is merely an obvious modification of Lowrey's teachings to replace or supplement the wireless data-transmission component with a wired interface. In this regard, the '278 patent itself appears to regard the "wired" (claim 2) embodiment and the "wireless" (claim 4) embodiment as interchangeable. *See*, e.g., col. 3, lines 4-9 of the '278 patent:

> The downloading interface may comprise either a wired or wireless signal downloading interface. The wired signal downloading interface may comprise a connector for temporary connection to a downloading device, for example. The wireless signal downloading interface may include a wireless receiver for temporary connection to a downloading device.

The '278 patent does not highlight any meaningful differences between the "wired" and "wireless" versions, and it is indicated that either one may be used for the same purpose, namely "for temporary connection to a downloading device." As such, it would have been obvious to replace or supplement Lowrey's wireless data-transmission component with a wired interface as recited in claim 2 for reasons that would have been readily apparent to a person having ordinary skill in the art, such as to establish a faster, more reliable, or more convenient connection. Indeed, the USPTO has previously recognized in the context of claim 2 that "downloading/(sending signals) by using a (temporary) directed wire (connecting directly to an I/F) has been quite well-known." *See* Examination of '272 Application, January 5, 2011 Non-Final Rejection (attached as Exhibit H), p. 4.

2.2 Obviousness of claim 3 in view of the Lowrey reference

Claim 3 depends from claim 2 and further recites the feature that "said wired signal downloading interface comprises a connector for temporary connection to a downloading device." As explained above in relation to claim 2, it would have been obvious to replace or supplement Lowrey's wireless data-transmission component with a wired interface as recited in

claim 2, for example, in order to establish a faster, more reliable, or more secure connection to the host computer system 5 (regarded as corresponding to the claimed "downloading device," *see* claim 5 in above claim chart). In doing so, the use of a "connector" as recited in claim 3 would have been the most obvious implementation because a connector, by definition, allows for a temporary connection as opposed to permanent hardwiring. Such a temporary connection would be needed for downloading updates as contemplated by Lowrey, including, for example, "an incoming data packet that includes a new schema" (*see* col. 7, lines 19-26) and "an incoming data packet that modifies the communication software" (*see* Abstract). Without a "connector" as claimed, the wired connection to the downloading device would entail permanent hardwiring to the host computer system 5, which would be impractical in the context of providing such updates to a vehicle. Indeed, the USPTO has previously recognized in the context of claim 3 that "downloading/(sending signals) by using a (temporary) directed wire (connecting directly to an I/F) has been quite well-known." *See* Examination of '272 Application, January 5, 2011 Non-Final Rejection (attached as Exhibit H), p. 4.

IV. Conclusion

For the above reasons, substantial new questions of patentability with respect to claims 1-22 of the '278 patent have been raised based upon the Lowrey reference. An order of reexamination is believed proper and is hereby respectfully requested.

The fee for requesting reexamination as provided by 37 C.F.R. § 1.20(c) is provided herewith. If any additional fees are required, please charge Deposit Account Number 19-4330.

Respectfully submitted,



Date: February 10, 2021

By: _____

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CERTIFICATE OF SERVICE

Certificate of Service in compliance with 37 C.F.R. § 1.510(b)(5)

Pursuant to 37 C.F.R. § 1.510(b)(5) and 37 C.F.R. § 1.33(c), I hereby certify that on February 10, 2021, a complete copy of this *ex parte* reexamination request, including the accompanying transmittal, FORM PTO/SB/42, and all attachments and exhibits, are being served via First Class U.S. Mail upon Patent Owner at the correspondence address as shown in PAIR:

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In accordance with 37 C.F.R. § 1.510(b)(5), on February 10, 2021.

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