

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GEOTAB USA, INC. AND GEOTAB, INC.,
Petitioners,

v.

OMEGA PATENTS, LLC
Patent Owner.

Case IPR2023-00504
Patent 8,032,278

PATENT OWNER'S NOTICE OF APPEAL

Office of the General Counsel
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

Pursuant to 35 U.S.C. §§ 141-144 and 319, and 37 C.F.R. §§ 90.2 and 90.3, notice is hereby given that Patent Owner Omega Patents, LLC (“Omega”) appeals to the United States Court of Appeals for the Federal Circuit from the Final Written Decision entered July 18, 2024 (Paper No. 45) by the U.S. Patent and Trademark Office, Patent Trial and Appeal Board (“Board”), from the Order Denying Director Review (Paper 47), and from all underlying findings, determinations, rulings, orders, and decisions regarding IPR 2023-00504 and its Final Written Decisions. A copy of the Final Written Decision and the Order Denying Director Review is attached hereto as Exhibit A.

In accordance with 37 C.F.R. § 90.2(a)(3)(ii), Omega further indicates that the issues on appeal may include, but are not limited to:

(1) the Board’s improper determination that Petitioner Geotab USA and Geotab, Inc. met their burden of proving by a preponderance of the evidence that claims 1-22 of U.S. Patent No. 8,032,278 B2 (“‘278 Patent”) are unpatentable under 35 U.S.C. §103;

(2) the Board’s application of the motivation to combine was legally incorrect

and unsupported by sufficient record evidence;

(3) the Board's findings that conflict with the evidence of record and/or are not supported by substantial evidence;

(4) the Board's impermissible shifting of the burden to Omega to show patentability in violation of 35 U.S.C. § 316(e), 5 U.S.C. §556(d), and 37 C.F.R. § 42.20(c);

(5) the Director's failure to reverse the Board's decision or provide any factual or legal basis in support of the denial; and

(6) all other issues decided adversely to Omega.

Pursuant to 37 C.F.R. § 90.3, this Notice of Appeal is timely, having been filed within 63 days after the date of the Order Denying Director Review.

Pursuant to 35 U.S.C. § 142 and 37 C.F.R. § 90.2(a), true and correct copies of this Notice of Appeal are being filed simultaneously with the Patent Trial and Appeal Board and the Clerk's Office for the United States Court of Appeals for the Federal Circuit, along with the required docketing fee, and served on the Director of the Patent and Trademark Office, as described in the accompanying Certificate of Filing and Service. Furthermore, a copy of this Notice of Appeal is being served on Petitioner Geotab USA, Inc. and Geotab, Inc.

Dated: October 21, 2024

Respectfully submitted,
Omega Patents, LLC

/s/ Ryan T. Santurri

Lead Counsel

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that, in addition to being filed electronically through the Patent Trial and Appeal Board's End to End System (PTAB E2E), the foregoing PATENT OWNER'S NOTICE OF APPEAL was served on the Director of the United States Patent and Trademark Office at efileSO@uspto.gov.

In addition, the undersigned certifies that a copy of the foregoing Notice of Appeal, along with the required docket fee, was filed on October 21, 2024, with the Clerk's Office for the United States Court of Appeals for the Federal Circuit through the Court's CM/ECF filing system.

The undersigned certifies pursuant to 37 C.F.R. § 42.6(e) that a true copy of the foregoing PATENT OWNER'S NOTICE OF APPEAL has been served in its entirety on October 21, 2024, by electronic mail on the Petitioners via its attorneys of record:

Adam Wichman Richard Giunta WOLF, GREENFIELD & SACKS, P.C. Awichman-ptab@wolfgreenfield.com Rgiunta-ptab@wolfgreenfield.com	
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Dated: October 21, 2024

Respectfully submitted,

/s/ Ryan T. Santurri

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Exhibit A

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GEOTAB USA, INC. AND GEOTAB, INC.,
Petitioner,

v.

OMEGA PATENTS, LLC,
Patent Owner.

IPR2023-00504
Patent 8,032,278 B2

Before BARRY L. GROSSMAN, AMBER L. HAGY, and
BRENT M. DOUGAL, *Administrative Patent Judges*.

HAGY, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Claims Unpatentable
35 U.S.C. § 318(a)
Denying Petitioner's Motion to Exclude Evidence
37 C.F.R. § 42.64

I. INTRODUCTION

Geotab USA, Inc. and Geotab Inc. (collectively, “Petitioner”) filed a petition to institute *inter partes* review of claims 1–22 of U.S. Patent No. 8,032,278 B2 (Ex. 1001, “the ’278 patent”). Paper 3 (“Pet.”). Omega Patents, LLC (“Patent Owner”) filed a Preliminary Response. Paper 7 (“Prelim. Resp.”). On our authorization (Ex. 1114), Petitioner filed a Reply and Patent Owner filed a Sur-Reply. Paper 8 (“Reply”); Paper 9 (“Sur-Reply”).

We instituted trial on July 25, 2023. Paper 11 (“Dec.” or “Institution Decision”). After institution of trial, Patent Owner filed a Patent Owner Response. Paper 15 (“PO Resp.”). Thereafter, Petitioner filed a Reply to Patent Owner’s Response (Paper 27, “Pet. Reply”) and Patent Owner filed a Sur-Reply (Paper 32, “PO Sur-Reply”).

Petitioner objected to certain exhibits submitted by Patent Owner, and filed a motion to exclude. Paper 37 (“Pet. Mot. Exclude”). Patent Owner opposed the motion (Paper 38, “PO Opp. Mot. Exclude”), and Petitioner filed a reply in support of its motion (Paper 39, “Pet. Reply Mot. Exclude”).

Oral argument was conducted on April 24, 2024, for this proceeding and the transcript of the hearing has been entered as Paper 44 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6 and issue this decision under 35 U.S.C. § 318(a). After considering the evidence and arguments of both parties, and for the reasons set forth below, we determine that Petitioner has met its burden of showing, by a preponderance of the evidence, that claims 1–22 are unpatentable.

II. BACKGROUND

A. *Real Parties-in-Interest and Related Matters*

Petitioner identifies Geotab USA Inc. and Geotab Inc. as its real parties in interest. Pet. xvii. Patent Owner identifies Omega Patents, LLC, as its real party in interest. Paper 5, 2.

The parties identify the following district-court proceedings as related matters involving the '278 patent: *Omega Patents, LLC v. Geotab USA, Inc.*, Case No. 1:22-cv-01044-CFC (D. Del.); *Omega Patents, LLC v. Verizon Connect, Inc.*, Case No. 6:22-cv-02371-WWB-EJK (M.D. Fla.); *Omega Patents, LLC v. Geotab, Inc.*, Case No. 1:23-cv-00382-WCB (D. Del.). Pet. xviii; Paper 5, 2 (Patent Owner's Mandatory Notices); Petitioners' Second Updated Mandatory Notices (Paper 25), 3.¹ Petitioner also identifies several other district-court proceedings as related matters. *See id.* at 3; Pet. xviii–xix (noticing *Omega Patents, LLC v. Enfora, Inc.*, Case No. 1:13-cv-00646 (N.D. Ga.); *Omega Patents, LLC v. Enfora, Inc.*, Case No. 1:17-cv-02769 (N.D. Ga.); *Omega Patents, LLC v. CalAmp Corp.*, Case No. 6:13-cv-01950 (M.D. Fla.); *Omega Patents, LLC v. DEI Holdings, Inc.*, Case No. 6:20-cv-00693 (M.D. Fla.); *Omega Patents LLC v. Firstech LLC*, Case No. 2:20-cv-01344 (W.D. Wash.)).

Petitioner identifies three cases before the United States Court of Appeals for the Federal Circuit as related matters: *Omega Patents, LLC v.*

¹ Petitioner states that Patent Owner originally filed No. 1:22-cv-01044-WCB against Geotab USA, Inc., and Geotab, Inc., and that on March 10, 2023, the district court dismissed Geotab, Inc. for improper service. Paper 25, 3. On April 4, 2023, Patent Owner filed No. 1:23-cv-00382-WCB against Geotab, Inc. *Id.* On August 1, 2023, the district court stayed both actions pending a final written decision in the present proceeding, without having consolidated the cases. *Id.*

CalAmp Corp., Case No. 18-1309; *Omega Patents, LLC v. CalAmp Corp.*, Case No. 20-1793; *Omega Patents, LLC v. CalAmp Corp.*, Case No. 20-1794. Pet. xix. Petitioner also states that the '278 patent was the subject of several *ex parte* reexamination proceedings: Serial No. 90/013,587, Serial No. 90/013,851, Serial No. 90/014,309, Serial No. 90/014,419, and Serial No. 90/014,675. *Id.* at xviii; *see also* Patent Owner's Fourth Supplemental Mandatory Notice (Paper 31) at 2; Petitioners' Second Updated Mandatory Notices (Paper 25), 1–3.

The parties additionally identify as related IPR2023-01162, in which trial was instituted on February 21, 2024. Paper 25, 3; Paper 31, 2.

B. Overview of the '278 patent

The '278 patent, titled “Vehicle Tracking Unit with Downloadable Codes and Associated Methods,” relates to multi-vehicle compatible tracking systems that can also remotely control various vehicle functions and/or read the status of various vehicle devices. Ex. 1001, code (57), 2:38–49. Figure 1, reproduced below, is a block diagram of a multi-vehicle compatible tracking system according to the '278 patent. *Id.* at 3:49–50.

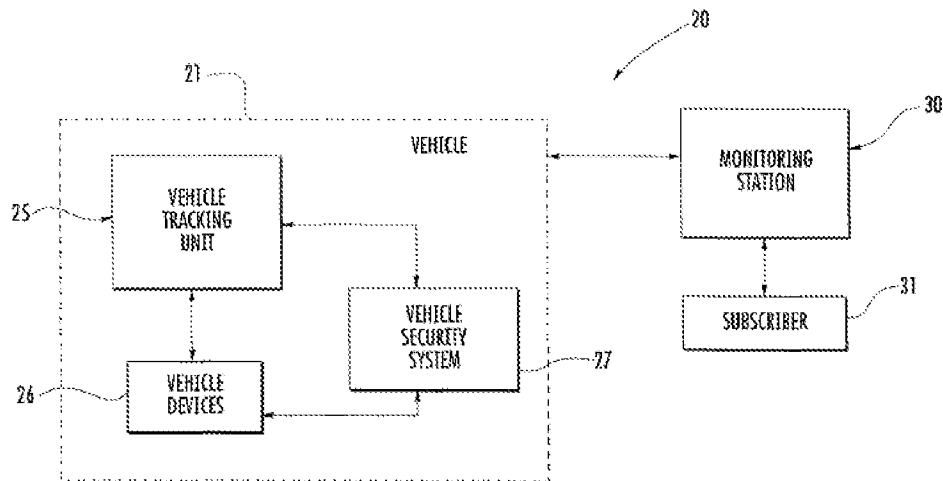


Fig. 1 is a block diagram of a multi-vehicle tracking system according to the '278 patent. Ex. 1001, 3:49–50.

As shown in Figure 1, multi-vehicle tracking system 20 includes vehicle tracking unit 25 mounted onto vehicle 21 and remote monitoring station 30. *Id.* at 4:32–37. The vehicle tracking unit may interact with various vehicle devices 26 to provide information about the vehicle to the monitoring station. *Id.* at 4:37–40.

Figure 10, reproduced below, provides a block diagram of a multi-vehicle compatible tracking unit according to one embodiment of the '278 patent. *Id.* at 4:4–5.

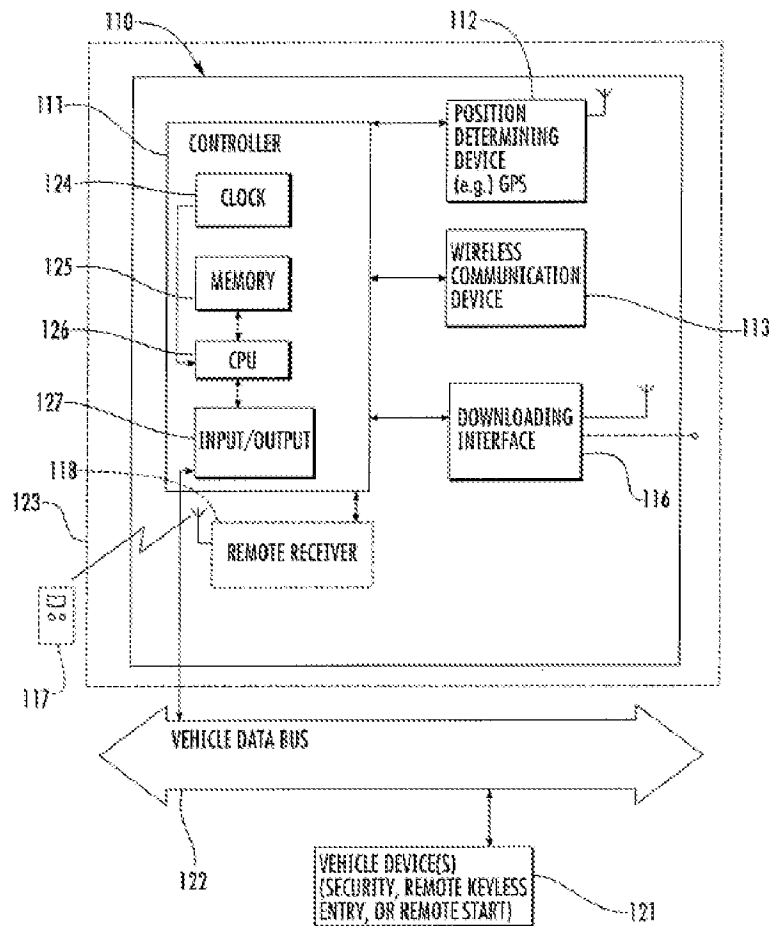


Fig. 10 is a simplified block diagram of a multi-vehicle compatible tracking unit according to the '278 patent. Ex. 1001, 4:5–6.

As shown in Figure 10, multi-vehicle compatible tracking unit 110 includes multi-vehicle compatible controller (“MVCC”) 111, vehicle position determining device 112 (e.g., GPS), wireless communications device 113, and downloading interface 116. *Id.* at 23:46–51, 24:4–8. The multi-vehicle compatible controller cooperates with vehicle position determining device 112 and wireless communication device 113 to send vehicle location information. *Id.* at 23:48–51.

Multi-vehicle compatible controller 111 is also coupled to vehicle data bus 122 (i.e., an internal communications network) extending throughout the vehicle. *Id.* at 23:43–46, 23:59–61. Multi-vehicle compatible controller 111 uses the vehicle data bus to communicate with vehicle device(s) 121. *Id.* at 23:59–61. Specifically, the multi-vehicle compatible controller sends “at least one corresponding vehicle device code from among a plurality thereof for different vehicles” to vehicle devices 121 over vehicle data bus 122. *Id.* at 23:61–67. The vehicle codes may be for reading from, and/or writing instructions to, the vehicle devices. *Id.* at 23:67–24:3.

To be compatible with multiple vehicles, the multi-vehicle compatible controller receives, selects, and/or generates vehicle codes by receiving “enabling data” downloads though downloading interface 116. *Id.* at 24:4–12. 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.” *Id.* at 24:8–13. The downloading interface may be in the form of a wireless signal downloading interface or a wired signal downloading interface. *Id.* at 24:14–18, 24:33–34.

C. *Prior Proceedings Involving the '278 Patent*

As noted *supra* Section II.A., the '278 patent has been asserted in several litigations and has been involved in several *ex parte* reexamination proceedings. Of note to the present proceeding are jury verdicts in trials between Patent Owner and CalAmp Corp. ("CalAmp") as well as some of the reexamination proceedings. We summarize briefly some of these proceedings for background, and then discuss relevant aspects in more detail in connection with Patent Owner's assertions of secondary considerations *infra* Section III.C.4.

Patent Owner asserted the '278 patent (and three other patents) against CalAmp in litigation starting in 2013. *See* PO Resp. 8; *Omega Patents, LLC v. CalAmp Corp.*, Case No. 6:13-cv-01950 (M.D. Fla.). In a first trial, a jury concluded that claims of all four asserted patents were infringed and were not invalid. Ex. 1027 (verdict form). On appeal, the Federal Circuit affirmed the jury's finding rejecting the invalidity challenge as to the '278 patent and the other asserted patents. *Omega Patents, LLC v. CalAmp Corp.*, 920 F.3d 1337, 1343 (Fed. Cir. 2019). The Federal Circuit also reversed and remanded the case for a new trial on select issues of infringement, willfulness, damages, and fees. *Id.* at 1354. On remand, the parties conducted a second trial, which resulted in a finding of direct infringement of the '278 patent and an award of damages for over 917,000 units of the accused CalAmp product that the jury found were infringing. Ex. 1028 (verdict form). On appeal, the Federal Circuit affirmed the finding of infringement of the '278 patent, but vacated the damages award and remanded for a third trial. *Omega Patents, LLC v. CalAmp Corp.*, 13 F.4th

1361, 1382 (Fed. Cir. 2021). According to Patent Owner, the case was resolved prior to a third trial. PO Resp. 8.

Meanwhile, in 2015, CalAmp filed a petition for *ex parte* reexamination, application 90/013,587, and the claims were confirmed. Ex. 1005, 13–14. CalAmp filed another petition for *ex parte* reexamination in 2016, application 90/013,851, in which the claims were rejected, the decision was appealed, the Board reversed, and the claims of the '278 patent were confirmed. Ex. 1006; *Ex parte Omega Patents, LLC*, Appeal No. 2018-008119 (Nov. 3, 2018) (“*Omega Patents I*,” Ex. 1012). CalAmp filed a third reexamination in 2019, application 90/014,309, in which the claims were confirmed. Ex. 1007, 23–24. A fourth petition for reexamination was filed in 2019, application 90/014,419. The examiner denied institution of reexamination (Ex. 1008, 51), but petitioner filed a petition to review the refusal, and on February 7, 2024, all claims were confirmed to be patentable. Paper 31, 2. A fifth petition for reexamination was submitted in 2021, application 90/014,675, in which the claims were rejected, the decision was appealed, the Board reversed, and the claims were confirmed. Ex. 1009, 17; *Ex parte Omega Patents, LLC*, Appeal No. 2022-003758 (Dec. 1, 2022) (“*Omega Patents II*,” Ex. 1017).

The prior proceedings have been argued by Patent Owner as material to institution considerations under 35 U.S.C. § 325(d), as well as with regard to secondary considerations. In particular, in opposing institution, Patent Owner argued that we should exercise our discretion to deny institution under 35 U.S.C. § 325(d) in view of the prior proceedings before the Office and the Board. Prelim. Resp. 51–57. Briefly, Patent Owner argued that the Office already considered Flick '885 (as cited on the face of the '278 patent

itself) and asserted that the only other reference asserted in the Petition—Hunt—is cumulative to art presented previously to the Office. Prelim. Resp. 53–55. Patent Owner also argued that the Board twice confirmed Patent Owner’s evidence of secondary considerations, including nexus, commercial success, copying, licensing, customer need, and limited value of the product without the claimed invention. *Id.* at 56–57 (citing *Omega Patents I*, Ex. 1012, and *Omega Patents II*, Ex. 1017); *see also id.* at 47–51.

Petitioner argued that “Hunt materially differs from the prior art presented to the Office,” Pet. 85–88, and that the “Board never considered Flick-885 in combination with Hunt or any other reference.” *Id.* at 88. As to secondary considerations, Petitioner also argued that “[t]he Office has never considered the actual license agreements [Patent Owner] misrepresented to the Office as establishing secondary considerations or the impact of blocking patents on [Patent Owner’s] alleged secondary considerations arguments.” *Id.* at 89 (citing *id.* at 78–79, 81–83).

In our Institution Decision, we considered the parties’ arguments and evidence, but declined to exercise our discretion to deny institution under section 325(d). Dec. 12–19. We agreed that Flick ’885 was presented previously to the Office because it is a reference cited on the face of the ’278 patent. *See id.* at 15 (citing Ex. 1001, code (56)). We also determined, however, that Hunt was not presented previously to the Office, and therefore the Office had not considered the prior art or combination presented in any of the three grounds raised in the Petition, and therefore neither the same nor substantially the same art or arguments were previously presented to the

office. *Id.* at 15, 19.² This fact also informed our preliminary determination that the art presented in this matter may weigh differently against Patent Owner’s evidence of secondary considerations. *Id.* at 19. In Section III.C.4., *infra*, we undertake a full evaluation of the evidence of secondary considerations on the record before us.

D. The Challenged Claims

Petitioner challenges claims 1–22 of the ’278 patent. Pet. 4. Claim 1, reproduced below with bracketed annotations as added by Petitioner, is independent and illustrative of the subject matter recited in the challenged claims.

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] a vehicle position determining device;

[b] a wireless communications device;

² In its Sur-reply, Patent Owner asserts that, in the ’419 reexamination, “the Patent Office confirmed the patentability of the claims of the ’278 patent over all art cited [therein] (as reflected in the IDS forms referenced therein),” including Hunt and Flick ’885. PO Sur-reply 18, n.4; Paper 24. We have reviewed the Notice of Intent to Issue *Ex Parte* Reexamination Certificate, mailed January 12, 2024, and note that neither Hunt nor Flick ’885 are mentioned therein; rather, the basis for this reexamination was obviousness over U.S. Patent No. 5,719,551 to Flick. Flick ’885 and Hunt were, however, each individually cited in an IDS, along with dozens of other references, but we have no indication that such references were substantively considered by the Examiner, alone or in combination. Moreover, the Examiner’s statement of reasons for allowance is reliance on evidence of secondary considerations made of record in previous reexamination proceedings, which we address *infra* in Section III.C.4. Accordingly, this recent development does not change our analysis herein.

- [c] a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information;
- [d] 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
- [e] 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.

Ex. 1001, 25:64–26:15.

E. Evidence

Petitioner submits evidence including:

Evidence	Exhibit No.
Declaration of Jeffrey Miller, Ph.D.	1003
U.S. Patent No. 6,957,133 B1 (Oct. 18, 2005) (“Hunt”)	1023
U.S. Patent No. 6,756,885 B1 (Jun. 29, 2004) (“Flick ’885”)	1024

F. Asserted Grounds of Unpatentability

Petitioner asserts that claims 1–22 would have been unpatentable on the following grounds, for which we instituted trial (Pet. 5):

Claim(s) Challenged	35 U.S.C. §	Reference(s)
1–22	103(a) ³	Flick ’885, Hunt
1, 4–6, 8, 11–12, 18–19, 21	102(b)	Hunt
1, 4–6, 8, 11–12, 18–19, 21	103(a)	Hunt

Patent Owner disputes Petitioner’s asserted grounds of unpatentability (*see generally* PO Resp. and PO Sur-Reply), and presents the testimony of Joseph McAlexander III (Exs. 2003, 2010) and Christian Tregellis (Ex. 2014).

G. The Prior Art

We provide brief summaries of the asserted references.

1. Hunt (Ex. 1023)

Hunt, titled “Small-Scale, Integrated Vehicle Telematics Device,” relates to a wireless appliance for monitoring a vehicle. Ex. 1023, code (57). Petitioner asserts Hunt is prior art under 35 U.S.C. § 102(b). Pet. 5. Patent Owner does not dispute the prior-art status of Hunt.

Hunt describes a wireless appliance that “provide[s] a small-scale, wireless, internet-based system for monitoring and analyzing a vehicle’s GPS

³ The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. §§ 102 and 103 effective March 16, 2013. The ’278 patent issued on October 4, 2011. Thus, we refer to the pre-AIA versions of 35 U.S.C. §§ 102 and 103. Our decision would be the same were we to apply the AIA versions of the statute.

and diagnostic data.” Ex. 1023, 2:23–25. Figure 1A, reproduced below, is a block diagram of a wireless appliance according to Hunt. *Id.* at 1:49–50.

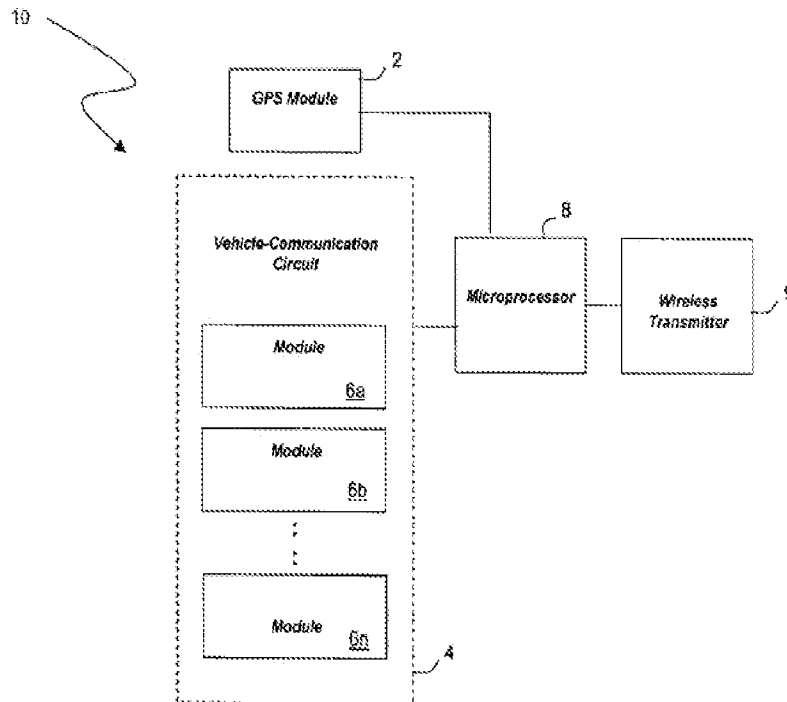


FIG. 1A is a block diagram of a wireless appliance according to one embodiment of Hunt. Ex. 1023, 1:49–50.

Wireless appliance 10 includes microprocessor 8, vehicle-communication circuit 4, GPS module 2, and wireless transmitter 9. *Id.* at 2:42–45. The GPS generates location-based data and the vehicle-communications circuit collects diagnostic data. *Id.* at 2:45–48. The wireless transmitter transmits both sets of data to, e.g., an Internet-hosted web site. *Id.* at 4:12–19.

The vehicle-communications circuit “is integrated into a single ASIC [application-specific integrated circuit] that includes modules for managing different vehicle-communication protocols,” e.g., protocols for vehicles manufactured by Ford, General Motors, Toyota, etc. *Id.* at 2:48–56. In one embodiment, the wireless appliance also includes “a multiplexing circuit that

provides electrical communication between the microprocessor and one of the modules” 6a–6n. *Id.* at 2:58–60; *see also id.* at 5:8–17.

Hunt states that the use of custom ASICs over conventional circuits “reduces manufacturing costs and increases reliability of the appliance.” *Id.* at 4:39–41. Figure 5, reproduced below, is a block diagram of an ASIC. *Id.* at 2:3–5.

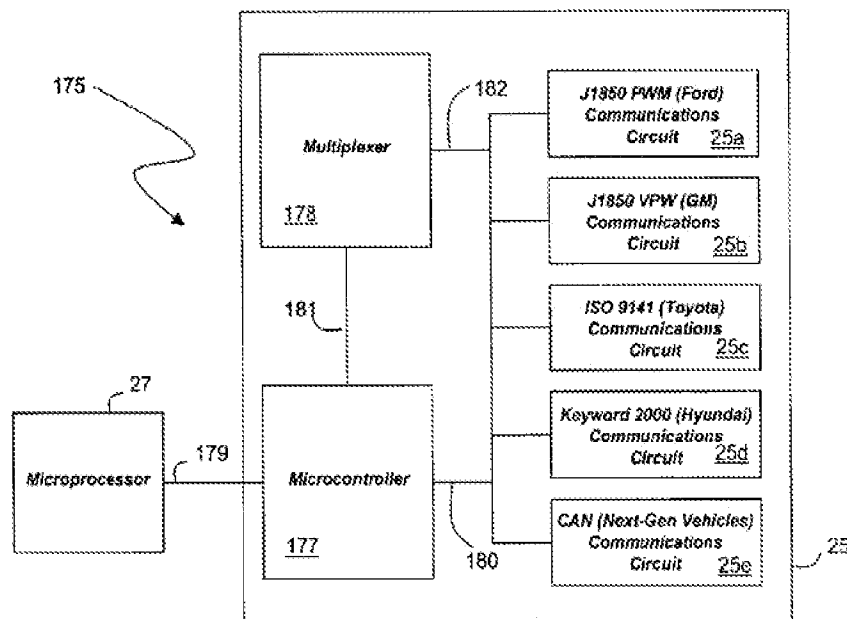


FIG. 5 is a block diagram of an ASIC used for the vehicle-communication circuit according to one embodiment of Hunt. Ex. 1023, 2:3–5.

In Figure 5, “ASIC 175 is used for the vehicle-communication circuit 25.” *Id.* at 8:48–51. The ASIC includes separate modules 25a–25e for supporting communication protocols and internal microcontroller 177. *Id.* at 8:51–58. Microprocessor 27 determines the communication protocol of the host vehicle by, e.g., “testing each protocol in an effort to establish communication” and “select[ing] the protocol that successfully communicated with the vehicle.” *Id.* at 8:66–9:8. After communication is established, microprocessor 27 communicates the specific protocol to microcontroller 177

over data link 179. *Id.* at 9:18–20. Multiplexer 178 then selects one of five modules 25a-e to communicate with the host vehicle by either enabling a module by providing power or disabling a module by removing power. *Id.* at 9:21–27. Hunt’s wireless appliance is compatible with multiple vehicles using different vehicle-communications protocols. *Id.* at 9:13–17.

2. *Flick ’885 (Ex. 1024)*

Flick ’885, titled “Multi-Vehicle Compatible Control System for Reading From a Data Bus and Associated Methods,” was granted to the same inventor as the ’278 patent, and relates to multi-vehicle compatible control (“MVCC”) systems for remotely controlling various vehicle functions, e.g., vehicle security, remote keyless entry, and remote starting. Ex. 1024, codes (57), (75). Flick ’885 issued on June 29, 2004 (*id.* at code (45)), and Petitioner contends it is prior art under 35 U.S.C. § 102(b). Pet. 5. Patent Owner does not challenge the prior-art status of Flick ’885.

Figure 1, reproduced below, is a block diagram of a MVCC system according to Flick ’885. Ex. 1024, 4:26–29.

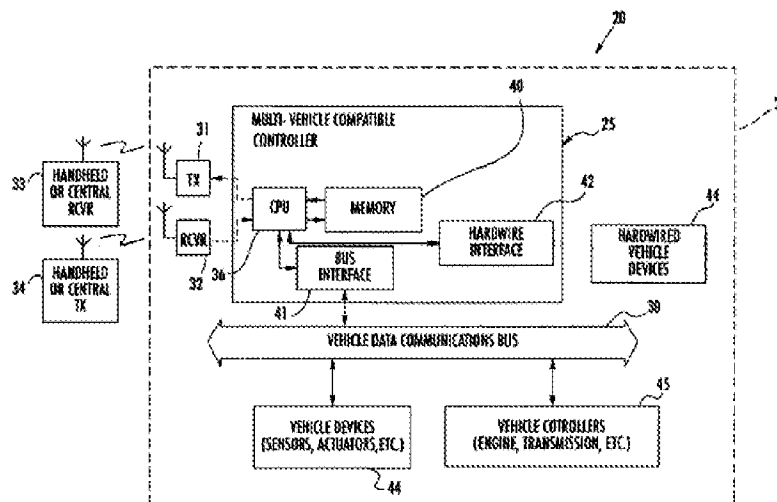


Fig. 1 is a schematic block diagram of a multi-vehicle control system including a multi-vehicle compatible controller connected to a data communications bus and other hard-wired devices. Ex. 1024, 4:27–30.

As shown in Figure 1, control system 20 for vehicle 21 includes MVCC 25 connected to vehicle devices 44 and vehicle controllers 45 through vehicle data communications bus 30. *Id.* at 5:5–8; *see also id.* at 6:41–52. The control system also includes transmitter 31 for communicating vehicle information (e.g., security alerts) to remote receiver 33, and receiver 32 for receiving instructions (e.g., remote starting) from remote transmitter 34. *Id.* at 5:16–29.

To be compatible with multiple vehicles, the multi-vehicle compatible controller generates multiple command signals or codes on the data communications bus for the vehicle device, “and only that code for the given vehicle and device will cause an operation or response from the vehicle device.” *Id.* at 7:23–38.

III. ANALYSIS

In an *inter partes* review, “the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)). Petitioner ultimately bears the burden of persuasion to prove unpatentability of each challenged claim by a preponderance of the evidence. 35 U.S.C. § 316(e). This burden never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

We organize our patentability analysis into three sections. First, we address the level of ordinary skill in the art. Second, we address claim construction. And third, taking account of the arguments and evidence

presented at trial, including evidence of secondary considerations, we consider whether Petitioner has met its burden of proving by a preponderance of the evidence that the challenged claims are unpatentable.

A. Level of Ordinary Skill in the Art

We consider the asserted grounds of unpatentability in view of the understanding of a person of ordinary skill in the art. In assessing the level of ordinary skill in the art, various factors may be considered, including (1) educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology, and (6) educational level of workers active in the field. *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 696–697 (Fed. Cir. 1983). Not all of these factors may be present in every case, and one or more of these or other factors may predominate in a particular case. *Id.* Moreover, these factors are not exhaustive but are merely a guide to determining the level of ordinary skill in the art. *Daiichi Sankyo Co. Ltd, Inc. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007).

Relying on the declaration testimony of Mr. Miller, Petitioner contends that an ordinarily skilled artisan for the '278 patent “would have had a Bachelor’s degree in electrical engineering, computer engineering, computer science, automotive engineering, or a related discipline, and at least two years of experience in networking or automotive engineering.” Pet. 9 (citing Ex. 1003 ¶¶ 54–60). Mr. Miller states his opinion is based on “the context of the '278 patent and the prior art.” Ex. 1003 ¶ 54. Petitioner also contends that an ordinarily skilled artisan “would have understood networking electronics, been familiar with vehicle data buses, regulations and industry

standards involving on-board diagnostics (‘OBD-II’), and at least one underlying network protocol used by OBD-II.” Pet. 9.

In our Institution Decision, we adopted Petitioner’s articulation of the level of ordinary skill in the art (i.e., “a Bachelor’s degree in electrical engineering, computer engineering, computer science, automotive engineering, or a related discipline, and at least two years of experience in networking or automotive engineering”), noting that it is consistent with the ’278 patent and the asserted prior art, and we applied it in our obviousness evaluations therein. Dec. 23 (citing *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (noting that the prior art, itself, can reflect appropriate level of ordinary skill in art)).

Patent Owner states, in its Response, that “Patent Owner has applied this level of skill, and notes that it is sufficient for the Board to evaluate the Petition Grounds.” PO Resp. 10 (footnote omitted).

We maintain our determination of the level of ordinary skill in the art as stated in our Institution Decision, and we apply it herein.

B. Claim Construction

In interpreting the claims of the ’278 patent, we “us[e] the same claim construction standard that would be used to construe the claim[s] in a civil action under 35 U.S.C. [§] 282(b).” 37 C.F.R. § 42.100(b). The claim construction standard includes construing claims in accordance with the ordinary and customary meaning of such claims as would have been understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. *See id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (*en banc*).

Petitioner does not provide a separate claim construction section in the Petition, but states that “[r]elevant claim constructions are discussed” in the Petition in relation to the claim elements where they appear, and that “[a]ll other terms should be given their ordinary meaning.” Pet. 9–10. Prior to institution, Patent Owner stated that “[a]ll terms not specifically construed should be given their ordinary meaning.” Prelim. Resp. 10–11.

We determined in our Institution Decision that we should construe the term “enabling data” because, in its first ground of unpatentability, Petitioner argues that this term constitutes “printed matter” under the printed matter doctrine. Dec. 24. We, therefore, addressed Petitioner’s arguments about printed matter. *See id.* (citing *Praxair Distribution, Inc. v. Mallinckrodt Hosp. Prod. IP Ltd.*, 890 F.3d 1024, 1033 (Fed. Cir. 2018) (holding that the Board “properly addressed the printed matter doctrine during claim construction”)). Ultimately, following our analysis of the ’278 patent’s written description, as well as relevant caselaw, we rejected Petitioner’s contention and concluded that “enabling data” is not “printed matter.” *Id.* at 24–27. We then concluded that we see no reason to depart from the Board’s previous construction of “enabling data” from *Omega Patents I*, wherein the Board construed “enabling data” as data that “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.” *Omega Patents I* (Ex. 1012), 12–13 (citing Ex. 1001, 24:5–25:28, Figs. 10–13).

Following our institution of trial, neither party has further argued claim construction. Patent Owner states in its Response that it concurs with

our determination that “enabling data” does not constitute “non-limited printed matter,” and further states that it concurs with our determination that “‘enabling data’ dictates how the particular information is used – to ‘enable[] the recited controller to use a particular vehicle device code from among plural such codes for different vehicles.’” PO Resp. 11.

Petitioner also supports the claim construction that we adopted in our Decision to Institute this proceeding. *See* Pet. Reply 18 (referring to “Petitioners’ ‘enabling data’ construction that the Board adopted [in its Decision to Institute]”). Moreover, Petitioner’s asserted example in its Reply to “[e]nabling data” being “met by firmware that enables the MVCC to identify the vehicle’s host communication protocol and its specified device codes” (*id.*) is consistent with our adopted construction in our Institution Decision.

Being presented with no reason to depart from our previous construction, we maintain our construction of “enabling data” from our Institution Decision as data that “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,” and we have applied that construction in our analysis herein.

We determine that no express claim construction is necessary for any other claim term. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (holding that only claim terms in controversy need to be construed, and only to the extent necessary to resolve the controversy (citing *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

C. Alleged Unpatentability: Obviousness over Flick '885 and Hunt

Petitioner contends that claims 1–22 of the '278 patent are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Hunt and Flick '885.⁴ Pet. 48–75. Patent Owner opposes Petitioner's contentions on two bases: (1) Petitioner fails to prove that the ordinarily skilled artisan would have combined Hunt and Flick '885 (PO Resp. 57–60); and (2) Petitioner's proposed combination fails to consider evidence of secondary considerations (*id.* at 60–62; *see also id.* at 44–55). Having considered the arguments and evidence on the full trial record, we find that Petitioner has demonstrated, by a preponderance of the evidence, that claims 1–22 are unpatentable on this ground.

A claim is unpatentable as obvious under 35 U.S.C. § 103(a) if the differences between the claimed subject matter 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. 35 U.S.C. § 103(a) (2006); *see also KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved based on underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) any objective indicia of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1,

⁴ This ground was the third ground presented in the Petition. *See* Pet. 2 (listing grounds). We have evaluated the arguments and evidence with regard to all three grounds presented. Because only this ground addresses all asserted claims, and because we find that Petitioner has met its burden of showing unpatentability of all asserted claims on this ground, we need not reach the other two grounds. *See also infra* Section III.D.

17–18 (1966). An obviousness determination requires finding a reason to combine accompanied by a reasonable expectation of achieving what is claimed in the challenged patent. *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367 (Fed. Cir. 2016). “[A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *KSR*, 550 U.S. at 419–20.

Below, we first evaluate the arguments and evidence as to motivation for the ordinarily skilled artisan to have combined the teachings of Hunt and Flick ’885, then we evaluate the arguments and evidence for each element of the challenged claims, and then we address the arguments and evidence regarding secondary considerations.

1. Motivation for the Asserted Combination

Petitioner presents arguments and evidence supporting its contention that the ordinarily skilled artisan⁵ would have been motivated to combine the teachings of Flick ’885 and Hunt by modifying Flick ’885’s vehicle control system to (1) obtain vehicle position information from a GPS and transmit it using a wireless communication system, and (2) house its components and GPS in a housing, both of which Petitioner contends are taught by Hunt. Pet. 49–53.

In terms of a reason to add Hunt’s location services to Flick ’885’s vehicle control system, Petitioner argues that both references disclose similar systems that use MVCCs to monitor vehicle devices using device

⁵ As we discuss *supra* Section III.A., such a person would have at least a Bachelor’s degree in electrical engineering, computer engineering, computer science, automotive engineering, or a related discipline, and at least two years of experience in networking or automotive engineering.

codes. Pet. 49–50 (citing Ex. 1024, 32:27–35, 3:58–62, 6:62–7:3, 7:43–49, 8:50–63, 9:43–55, 10:31–36), *id.* at 13–41 (summarizing Hunt’s description of a MVCC relative to claim 1). Petitioner further contends that Hunt “explains there are ‘many advantages’ to adding GPS and location services to such systems.” *Id.* at 50 (citing Ex. 1023, 2:35–41, 4:18–22). Petitioner then posits that Hunt’s disclosure would have motivated the ordinarily skilled artisan to add location services to Flick ’885 to achieve any or all of the advantages that Hunt describes, including “roadside assistance,” “alerting” the owner when the vehicle is moved, vehicle “recovery” and “remote diagnostics.” *Id.* at 50–51 (citing Ex. 1023, 2:35–41, 4:18–22; Ex. 1003 ¶ 366). Petitioner asserts that such combination would have been no more than the “predictable use of prior art elements according to their established functions.” *Id.* at 51 (citing *KSR*, 550 U.S. at 417; Ex. 1003 ¶ 367).

Petitioner also contends that the ordinarily skilled artisan would have had a reasonable expectation of success adding Hunt’s GPS system and position-reporting to Flick ’885 “because GPS systems were known and Hunt uses GPS in a vehicle control system like Flick-885’s system.” *Id.* at 52 (citing Ex. 1003 ¶ 371; Ex. 1001, 1:52–53). Petitioner asserts that by integrating Hunt’s GPS system and position-reporting in Flick ’885, the MVCC of the combined system would determine the vehicle’s position using GPS and transmit the position using Flick ’885’s wireless transmitter just like Hunt’s MVCC. *Id.* (citing Ex. 1003 ¶ 372).

Petitioner provides an annotated version of Figure 1 of Flick ’885, illustrating the addition of Hunt’s GPS to Flick ’885’s system. Pet. 51. This annotated figure is reproduced below.

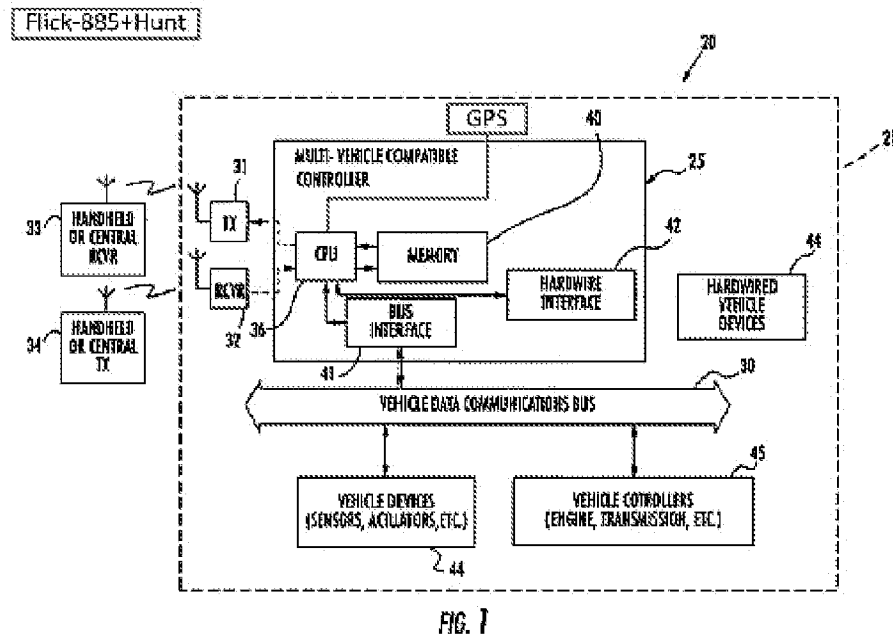


Figure 1 of Flick ’885, as annotated by Petitioner, is a “schematic block diagram of a vehicle control system including the multi-vehicle compatible controller connected to a data communications bus and other hard-wired devices,” see Ex. 1024, 4:26–29, with the addition of a GPS as in Hunt. Pet. 51.

In terms of a reason to add Hunt’s housing to Flick ’885’s vehicle control system, Petitioner argues that the ordinarily skilled artisan would have been motivated to make the combination because (1) the ordinarily skilled artisan “would have understood that housing these vehicle control system components in a single housing as a stand-alone unit ‘reduces installation costs,’ makes the system easier to hide in the vehicle and ‘makes it more difficult to disable when stealing a vehicle’” (Pet. 52 (citing Ex. 1023, 4:34–38; Ex. 1003 ¶ 369)); and (2) this combination is no more than the “predictable use of prior art elements according to their established functions” (*id.* (citing *KSR*, 550 U.S. at 417; Ex. 1003 ¶ 370)).

Petitioner posits that the ordinarily skilled artisan would have had a reasonable expectation of success in integrating into a single housing the

components of a vehicle monitor system according to the combined teachings of Flick '885 and Hunt “because Hunt discloses that a system with all the same components can be integrated in a single housing.” Pet. 52–53 (citing Ex. 1003 ¶ 373). Petitioner further asserts that a system according to the combined teachings of Flick '885 and Hunt “uses the GPS system and housing for their normal functionality, in the same manner used in Hunt, and thus the combination is nothing more than a ‘predictable use of prior art elements according to their established functions.’” *Id.* at 53 (citing *KSR*, 550 U.S. at 417; Ex. 1003 ¶ 374). According to Petitioner, “[a]scertaining vehicle position was a known problem for which GPS was a known solution. . . . Adding Hunt’s GPS module and housing to Flick-885 would improve Flick-885 in the same way they improved Hunt.” *Id.* (citing *KSR*, 550 U.S. at 418–420; Ex. 1003 ¶¶ 375–376).

Patent Owner counters that the ordinarily skilled artisan would not have combined Flick '885 with Hunt, and makes several assertions in support of that contention. PO Resp. 57–60 (citing Ex. 2010 ¶¶ 187–199). First, Patent Owner points out differences between Hunt and Flick '885, noting that Flick '885 “does not disclose anything about vehicle position determining,” and Hunt “does not address ongoing compatibility with different vehicles since Hunt discloses protocol modules being embodied in an ASIC.” *Id.* at 57 (emphasis omitted). Even if Patent Owner’s assertions are true,⁶ such differences only underscore the basis for Petitioner’s reliance on the combined teachings of the references. *See In re Merck & Co.*, 800

⁶ Petitioner disputes Patent Owner’s characterization of Hunt’s disclosures as to the MVCC. *E.g.*, Pet. Reply 16–28. We do not need to resolve those disputes to render our decision herein, as we rely primarily on Flick '885 for those teachings. *See infra* III.C.2.

F.2d 1091, 1097 (Fed. Cir. 1986) (noting a showing of obviousness based on the teachings of a combination of references cannot be undermined by attacking the references individually). Despite any differences, the fact remains that the subject matter of the references overlaps substantially in terms of technology and purpose, as Petitioner persuasively demonstrates. *See* Pet. 49–50.

Patent Owner then asserts that Petitioner’s alleged motivation for combining the teachings is premised merely on turning to Hunt to make Flick ’885 “better” without providing a technical rationale of how or why, and thus such combination is premised only on “improper hindsight.” PO Resp. 58. In that regard, Patent Owner challenges our reliance in our Institution Decision on *Dystar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 1365 (Fed. Cir. 2006), asserting that we “oversimplified” the holding of that case to support an “improvement” as a motivation for a combination. *Id.* Patent Owner asserts that “[a]ccording to *Dystar*, in this case where the ‘improvement’ is technology dependent, a technical rationale is required, but simply uttering the terms ‘desirable’ or ‘better’ is not sufficient.” *Id.* Here, according to Patent Owner, “there is no evidence to support that combination of Hunt with Flick885 will make a stronger, cheaper, faster, more durable, or more efficient device.” *Id.* Indeed, according to Patent Owner, the ordinarily skilled artisan would have understood that adding GPS to Flick ’885’s device would have made it “slower” due to extra processing power required for GPS. *Id.* (citing Ex. 2010 ¶ 192).

We disagree with Patent Owner’s characterization of the record. Petitioner does not merely allege that the combination is “better” than Flick

'885, but provides evidence of particular advantages that Hunt purportedly provides by combining GPS with a system that is similar to that described by Flick '885. In particular, Petitioner points out that both references disclose MVCC systems (Pet. 49–50 (citing Ex. 1024, 32:27–35, 3:58–62, 6:62–7:3, 7:43–49, 8:50–63, 9:43–55, 10:31–36), *id.* at 13–41 (summarizing Hunt's description of a MVCC relative to claim 1)) and both references disclose the importance of vehicle security (Pet. 49–51; Ex. 1023, 2:35–41, 4:18–22; Ex. 1024, 1:21–23). Petitioner further provides evidence that Hunt “explains there are ‘many advantages’ to adding GPS and location services to such systems,” including “alerting” the owner when the vehicle is moved and aiding in vehicle “recovery.” Pet. 50–51 (citing Ex. 1023, 2:35–41, 4:18–22). Hunt also expressly teaches that vehicle-location data and vehicle diagnostic data “are complementary and, when analyzed together, can improve conventional services such as roadside assistance, vehicle theft notification and recovery, and remote diagnostics.” Ex. 1023, 4:18–23. Petitioner similarly provides a persuasive rationale for combining Hunt's teachings of a housing with Flick '885, again presenting evidence that both references teach similar systems, and hence adding Hunt's housing to Flick '885's system would improve that system the same way that it improved Hunt. Pet. 52–53.

“[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” *KSR*, 550 U.S. at 417. Here, as discussed above, Petitioner has presented persuasive evidence (including the testimony of Mr. Miller, which we credit) that adding GPS and housing, as

taught by Hunt, would improve Flick '885 the same way that these features improved Hunt, particularly in light of overlapping disclosures of these references, both in terms of the technology they disclose as well as their intended purposes. Pet. 49–53; Ex. 1003 ¶¶ 363–376.

Petitioner also counters Patent Owner's "slower" argument, noting that neither Hunt nor the '278 patent describe addition of GPS as making any device "slower." Pet. Reply 3. We agree. Patent Owner's only support for this assertion is the testimony of Mr. McAlexander, who simply makes such a statement without citing any support. *See* Ex. 2010 ¶¶ 192–193. As such, this testimony is entitled to little weight. *See Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 12 at 5 (PTAB Feb. 10, 2023) (Decision by the Director) (determining "the Board was correct in giving little weight to Petitioner's expert because the expert declaration merely offered conclusory assertions without underlying factual support"); *see also* 37 C.F.R. § 42.65(a) ("Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight."). And even if there were speed tradeoffs for adding GPS functionality, the law requires only that a combination provide a "suitable option." *Intel Corp. v. Qualcomm Corp.*, 21 F.4th 784, 800 (Fed. Cir. 2021). We agree Petitioner has shown, through Hunt's disclosure, that using GPS with a vehicle controller was a suitable option.

We are also persuaded by Petitioner's evidence (including the testimony of Mr. Miller, which we credit) that the ordinarily skilled artisan would have had a reasonable expectation of success in making the combination, because the combination uses the GPS system and housing for their normal functionality, and the combination is the predictable use of

prior art elements according to their established functions. *See* Pet. 52 (citing Ex. 1003 ¶¶ 374–375); *see also KSR*, 550 U.S. at 416 (“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.”).

Petitioner’s persuasive showing is not undermined by Patent Owner’s assertion that the combination was not obvious because the inventor of both the ’278 patent and Flick ’885, Mr. Flick, did not himself “come up with adding GPS” until the ’278 patent. Though this evidence is relevant, it cannot be considered in a vacuum, as the standard is not what the inventor himself knew or appreciated, but what an ordinarily skilled artisan would have understood. The ordinarily skilled artisan is a fictional construct that, for example, is aware of all prior art in existence. *Custom Accessories, Inc. v. Jeffrey–Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986) (“The person of ordinary skill is a hypothetical person who is presumed to be aware of all the pertinent prior art.”); *Kimberly–Clark Corp. v. Johnson & Johnson*, 745 F.2d 1437, 1454 (Fed. Cir. 1984) (stating that “[r]eal inventors, as a class, vary in their capacities from ignorant geniuses to Nobel laureates; the courts have always applied a standard based on an imaginary worker of their own devising”); *see also id.* at 1449–54 (providing a comprehensive discourse on the evolution of the person of ordinary skill body of law). Nor is Petitioner’s persuasive showing undermined by the conclusory expert testimony of Mr. McAlexander, who either parrots Patent Owner’s attorney arguments or makes unadorned contrary statements without underlying support. *See* Ex. 2002 ¶¶ 141–146; Ex. 2010 ¶¶ 187–199; *see also Xerox Corp.*, IPR2022-00624, Paper 12 at 5.

Patent Owner also asserts that the combination must not have been obvious because “GPS was disclosed in the prior art considered” previously by examiners during examination or previous reexaminations of the ’278 patent, but “there has never been a finding that simply disclosing GPS led to obviousness.” PO Resp. 58–59. We considered a variation of this argument in our Institution Decision, addressing Patent Owner’s argument that “the same or substantially the same art or arguments were presented previously to the Office.” Dec. 14–17. We determined that the combination of Hunt and Flick ’885 presented here by Petitioner was not previously presented to the Office. *Id.* We have not been presented during the trial of this matter with any arguments or evidence that counter our previous determination. Thus, we have no basis for considering whether examiners during original examination or any subsequent reexaminations should have rejected any claims based on the combination now posed by Petitioner.

Although we have considered Patent Owner’s arguments and expert testimony carefully, we find that, for the foregoing reasons, that Petitioner has shown by a preponderance of the evidence on the complete record that an ordinarily skilled artisan at the time of the claimed invention would have had sufficient reason to combine the teachings of Flick ’885 and Hunt to achieve the claimed invention with a reasonable expectation of success.

We turn now to the parties’ arguments and evidence as to the combined teachings for each element of the challenged claims.

2. *Claim 1*

Petitioner contends that “Flick-885 discloses everything in the challenged claims except GPS (vehicle position determining device) and a single housing.” Pet. 49. As support, Petitioner notes that “[t]he ’278 patent

acknowledges GPS was known for vehicle tracking (Ex. 1001, 1:47–53) and alleges that using GPS distinguished the alleged invention from Flick-885.” *Id.* (citing Ex. 1003 ¶ 361).

(a) [Preamble] “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:”

Petitioner presents evidence that the combination of Flick ’885 and Hunt teaches or suggests the subject matter of the preamble.⁷ Pet. 53–54; *see also id.* at 56–68. In particular, Petitioner presents evidence that Flick ’885 discloses, *inter alia*, a “vehicle data communications bus” that extends through the vehicle to allow communication with the “engine, transmission, etc.” and other “sensors, actuators, etc.” *Id.* at 53–54 (citing Ex. 1024, 5:5–15, Fig. 1). Petitioner additionally relies on its showing for the other limitations of claim 1 as demonstrating that the combination of Hunt and Flick ’885 teaches or suggests a “multi-vehicle compatible tracking unit.” *Id.* at 53.

We find that Petitioner’s contentions are persuasive and are supported by the cited record. Patent Owner does not make any specific argument regarding the preamble. *See generally* PO Resp. Regardless of whether the preamble of claim 1 is limiting, based on the complete record presented, we find Petitioner has demonstrated persuasively that the combination of Flick ’885 and Hunt discloses the subject matter recited in the preamble of claim 1.

⁷ Neither party takes a position on whether the preambles to the claims are limiting. We accept Petitioner’s showing that the preambles are taught by the prior art, without deciding whether the preambles are limiting.

- (b) [a] “a vehicle position determining device”
[b] “a wireless communications device”

Petitioner presents evidence that the combination of Flick ’885 and Hunt teaches or suggests these limitations because Hunt discloses a GPS device and Flick ’885 discloses a wireless transmitter. Pet. 54–56; *see id.* at 13–15. We agree with Petitioner that Hunt’s GPS module and Flick ’885’s wireless transmitter satisfy these claim limitations, respectively. *See id.* at 13–15 (for limitation 1[a], citing Ex. 1023, code (57), 1:8–11, 1:39–47, 2:30–32, 2:42–48, 3:26–28, 5:7, 5:43–54, 7:30–33, Figs. 1A, 1B, & 2, claim 1; Ex. 1003 ¶¶ 217–220); *id.* at 55–56 (for limitation 1[b], citing Ex. 1024, 5:16–35, 5:45–50, Figs. 1, 2, 4).

Patent Owner does not make any specific argument regarding these limitations. *See generally* PO Resp. Based on the complete record presented, we find Petitioner has demonstrated persuasively that the combination of Flick ’885 and Hunt discloses the subject matter recited in limitations 1[a] and 1[b].

- (c) [c] “a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information”

Petitioner presents evidence that the combination of Flick ’885 and Hunt teaches or suggests this limitation by Flick ’885’s disclosure of a multi-vehicle compatible controller (MVCC) combined with Hunt’s disclosure of a GPS. Pet. 56–60 (citing Ex. 1024, 3:5–36, 5:5–15, 6:9–40, 6:53–61, 7:12–8:11, 9:1–67, Figs. 1, 2, 4; Ex. 1023, 6:18–44; Ex. 1003 ¶¶ 381–394).

As Petitioner’s evidence persuasively shows, Flick ’885’s MVCC “provide[s] compatibility with a plurality of different vehicles.” Ex. 1024,

3:5–18, 8:34–40. The MVCC stores “a set of device codes for a given vehicle device for a plurality of different vehicles,” reads a device code from the data communications bus, and determines “a match between a read device code and the stored device codes to thereby provide compatibility with a plurality of different vehicles.” *Id.* at Abstract, 8:64–9:10. CPU 36 within MVCC 25 connects to a wireless communications device (transmitter 31 and receiver 32) and sends vehicle information via transmitter 31. *Id.*, Abstract (noting the MVCC “cooperat[es] with the transmitter”), 5:16–24 (noting the control system provides “a remote alert” to a user “away from the vehicle”), Figs. 1, 2, 4.

According to Petitioner, when combined with Hunt, Flick ’885’s CPU 36 also connects to a GPS, and the vehicle information sent via wireless transmitter 31 includes vehicle position information as taught by Hunt. Pet. 59–60 (citing Ex. 1003 ¶ 393); *see also id.* at 13–15 (discussing Hunt’s teachings of a GPS device) (citing Ex. 1023, Abstract, 1:8–11, 1:39–47, 2:42–48, 3:26–28, 5:43–54, 7:30–33, Figs. 1A (GPS Module 2), 1B (“GPS Module” 20 and antenna 21), 2, claim 1).

We find that Petitioner’s contentions are persuasive and are supported by the cited record. Patent Owner does not make any specific arguments regarding these limitations. *See generally* PO Resp. Based on the complete record presented, we find Petitioner has demonstrated persuasively that the combination of Flick ’885 and Hunt discloses the subject matter recited in limitation 1[c].

(d) [d] “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”

Petitioner presents evidence that Flick ’885 teaches or suggests this limitation by disclosing the MVCC connects to a vehicle data bus through bus interface 41.⁸ Pet. 61 (citing Ex. 1024, 5:5–15, 6:32–40, Figs. 1, 2, 4, 7, 8). Petitioner also presents evidence that Flick ’885’s MVCC communicates with at least one vehicle device (that is, at least one of vehicle devices 44 and/or vehicle controllers 45) by sending or receiving device codes over the vehicle data bus. *Id.* (citing Ex. 1024, 6:40–52 (“[V]ehicle 21 includes . . . electrical/electronic devices that can be controlled and/or the status thereof read via the data communications bus 30. . . . [T]hese devices are . . . labeled ‘vehicle devices (sensors, actuators . . .)’ and ‘vehicle controllers (engine controller, transmission controller . . .).”)); *id.*, 3:34–36, 4:9–23, 5:5–15, 6:32–36 (describing the MVCC as reading or generating signals on the data bus), 9:21–55, Fig. 1 (depicting vehicle device 44 and vehicle controllers 45), Figs. 2, 4, 7, 8).

Petitioner also presents evidence that Flick ’885’s MVCC communicates bidirectionally with “vehicle devices” over the vehicle data communication bus using a vehicle device “code.” Pet. 62–63 (citing Ex. 1024, 7:30–34 (describing sending a “code for the given vehicle and

⁸ Petitioner additionally argues that “to be coupled to the vehicle data bus” is a “non-limiting statement of intended use” that “only requires that the MVCC be capable of being coupled to the bus for communication.” Pet. 60–61. Patent Owner does not address this contention. Given Petitioner’s persuasive showing on this limitation, we assume without deciding that this limitation is not merely a statement of intended use.

device”), 8:64–9:10 (describing reading a “code” for a “vehicle device”). Petitioner also presents evidence that Flick ’885’s MVCC communicates using vehicle device codes “from among a plurality thereof for different vehicles” because it “reads a device code from a vehicle device and compares it to ‘stored device codes’ for a ‘plurality of different vehicles.’” *Id.* at 63 (citing Ex. 1024, 3:5–26, Figs. 4–6). As Petitioner persuasively contends, such comparison “uses” the “read device code” and the matching “stored device code” to identify the particular vehicle “to thereby provide compatibility with a plurality of different vehicles.” *Id.* (citing Ex. 1024, Abstract, 2:66–3:4, 3:10–26, 3:63–4:5, 8:42–9:10, Figs. 4–6, claims 1–8).

Petitioner also presents evidence that Flick ’885’s MVCC sends signals to vehicle devices by generating “multiple signals or codes . . . on the data communication bus 30,” wherein “only that code for the **given vehicle** and device will cause an operation or response from the vehicle device.” Pet. 63 (citing Ex. 1024, 6:53–58, 7:24–42, 7:60–8:41, 9:11–10:6, 10:18–21, Figs. 2, 3, 5, 7).

We find that Petitioner’s contentions are persuasive and are supported by the cited record. Patent Owner does not make any specific arguments regarding this limitation. *See generally* PO Resp. Based on the complete record presented, we find Petitioner has demonstrated persuasively that Flick ’885 teaches or suggests the subject matter recited in limitation 1[d].

(e) [e] “a downloading interface for permitting downloading enabling data related to the at least one corresponding vehicle device code for use by said multivehicle compatible controller”

Petitioner presents evidence that Flick ’885 teaches or suggests this element by disclosing a “signal enabling function” (through its incorporation by reference of U.S. Patent No. 6,011,460 (“Flick ’460”)) that has both a

wireless and a wired “downloading interface.” Pet. 64 (citing Ex. 1024, 10:10–17 (incorporating Flick ’460); Ex. 1025 (Flick ’460)). Petitioner contends that each alternative separately meets the “downloading interface for permitting downloading” recited in this limitation. *Id.* at 64–68 (citing Ex. 1025, 7:31–56, Figs. 6A, 12 (wireless interface), *id.* at 7:49–56, Figs. 6B (wired interface)).

Petitioner also presents evidence that Flick ’885 teaches or suggests downloading “enabling data.” *Id.* at 67.⁹ Petitioner contends that Flick ’460’s “download learning means” is for downloading a “desired set of signals from the plurality of different sets of signals for different vehicles” (Ex. 1025, Abstract, claim 1, 7:40–43), which Flick ’885 explains can be used for (1) allowing the MVCC to be reinstalled in another vehicle and reset to learn “another vehicle” or (2) for “initial step-up” (Ex. 1024, 10:7–17). Pet. 68. As Petitioner notes, Flick ’885 explains that the set of signals for a vehicle includes the vehicle device codes for that vehicle. *Id.* (citing Ex. 1024, 7:24–42, 7:50–8:34). Thus, Petitioner reasons, the downloaded data in Flick ’885 is “enabling data related to the at least one corresponding vehicle device code for use by said [MVCC]” as recited in this limitation. *Id.* (citing Ex. 1003 ¶ 421). We find that Petitioner’s contentions are persuasive and are supported by the cited record.

Patent Owner does not make any specific arguments regarding this limitation. *See generally* PO Resp. Based on the complete record presented, we find Petitioner has demonstrated persuasively that Flick ’885 teaches or suggests the subject matter recited in limitation 1[e].

⁹ As noted *supra* Section III.B., we reject Petitioner’s alternative contention that “enabling data” is non-limiting printed matter. *See* Pet. 38–40.

(f) *Claim 1: Conclusion*¹⁰

For the foregoing reasons, we find Petitioner has demonstrated persuasively that the combination of Flick '885 and Hunt teaches or suggests all of the limitations of claim 1, and that the ordinarily skilled artisan would have been motivated to make the combination with a reasonable expectation of success. We address *infra* in Section III.C.4. the parties' arguments and evidence pertaining to secondary considerations.

3. *Additional Claims 2–22*

Claims 13 and 18 are the other independent claims of the '278 patent. Ex. 1001, 26:28–27:11, 27:27–28:15. Claims 13 and 18 each recite the same limitations as claim 1, while each adding one limitation. Claim 13 adds “said downloading interface comprising a connector for temporary connection to a downloading device.” *Id.* at 27:10–11. This limitation is also recited in claim 3, which depends from claim 1. *Id.* at 26:19–22. Claim 18 adds “said downloading interface comprising a wireless receiver for temporary connection to a downloading device.” *Id.* at 28:14–15. This limitation is also recited in claim 5, which depends from claim 1. *Id.* at 26:26–29.

Below, we evaluate Petitioner's showing as to the remaining claims, grouping claims according to their respective recitations.

¹⁰ For the sake of convenience, we have organized the Decision by addressing the claim limitations first and later addressing the secondary considerations. We note that our conclusions are in view of the entire record, including taking secondary considerations into account.

(a) Claims 2 and 4

Claims 2 and 4 depend from claim 1, and recite that the “downloading interface” comprises a “wired signal downloading interface” and a “wireless signal downloading interface,” respectively. Ex. 1001, 26:18, 26:25.

Petitioner presents evidence that Flick ’885 teaches or suggests the subject matter of these claims by disclosing both a wired and a wireless signal downloading interface. *See* Pet. 64–68 (citing Ex. 1025, 7:31–56, Figs. 6A, 12 (wireless interface), *id.* at 7:49–56, Figs. 6B (wired interface)). We find that Petitioner’s contentions are persuasive and are supported by the cited record.

Patent Owner does not make any specific arguments regarding these claims. *See generally* PO Resp. Based on the complete record presented, we find Petitioner has demonstrated persuasively that Flick ’885 teaches or suggests the subject matter recited in claims 2 and 4.

(b) Claims 3 and 13

Claim 3 depends from claim 2 and recites that the wired signal downloading interface comprises “a connector for temporary connection to a downloading device.” Ex. 1001, 26:21–22. Independent claim 13 contains a similar recitation, while omitting the requirement that the downloading interface be “wired.” *Id.* at 27:10–11.

Petitioner presents evidence that Flick ’885 (through incorporation by reference of Flick ’460) teaches or suggests the subject matter of these claims by disclosing a wired downloading interface that “temporarily connects to a ‘downloading device, such as a portable or laptop computer.’” Pet. 69 (citing Ex. 1025, Abstract). Citing expert testimony of Mr. Miller, which we credit, Petitioner further asserts that “[t]he conventional and

obvious way to implement in Flick-885+Hunt the wired downloading interface Flick-460 describes would have been to use a known connector (e.g., RS232, USB, or FireWire) for temporarily connecting to a downloading computer.” *Id.* (citing Ex. 1003 ¶ 430). We find that Petitioner’s contentions are persuasive and are supported by the cited record.

Patent Owner does not make any specific arguments regarding these claims. *See generally* PO Resp. Based on the complete record presented, we find Petitioner has demonstrated persuasively that Flick ’885 teaches or suggests the subject matter recited in claims 3 and 13.

(c) *Claims 5 and 18*

Claim 5 depends from claim 4, and recites that the “wireless signal downloading interface comprises a wireless receiver for temporary connection to a downloading device.” Ex. 1001, 26:28–29. Independent claim 18 contains a similar recitation, while omitting the recitation that the downloading interface is “wireless.” *Id.* at 28:14–15.

Petitioner presents evidence that Flick ’885 (through incorporation by reference of Flick ’460) teaches or suggests the subject matter of these claims by disclosing a wireless signal downloading interface, which connection would (by standard convention) be temporary. Pet. 70 (citing Ex. 1033, 99:19–24, 103:13–19 (trial testimony of Patent Owner’s expert in *Omega Patents LLC v. CalAmp Corp.*, Case No. 6:13-cv-1950, Feb. 18, 2016)). Citing expert testimony of Mr. Miller, which we credit, Petitioner further asserts:

To the extent Flick-460 is not considered to expressly teach a wireless receiver for temporary connection, an obvious and conventional way to implement what Flick-460 describes with a reasonable expectation of success is via a wireless interface having a receiver that forms a “temporary connection to a

downloading device” when it is desired to download the “desired signal set” or update the device software, or when a cellular, satellite, or other wireless connection is available to support the data download.

Id. at 70–71 (citing Ex. 1003 ¶ 435).

We find that Petitioner’s contentions are persuasive and are supported by the cited record.

Patent Owner does not make any specific arguments regarding these claims. *See generally* PO Resp. Based on the complete record presented, we find Petitioner has demonstrated persuasively that Flick ’885 teaches or suggests the subject matter recited in claims 5 and 18.

(d) Claims 6, 7, 14, 15, 19, and 20

Claim 6 depends from claim 1, and recites “wherein the corresponding at least one vehicle code is for reading from the at least one vehicle device.” Ex. 1001, 26:31–32. Claims 14 and 19 depend from claims 13 and 18, respectively, and contain commensurate limitations. *Id.* at 27:13–14, 28:16–18.

Claim 7 depends from claim 1, and recites that the “corresponding at least one vehicle code is for writing to the at least one vehicle device.” Ex. 1001, 26:34–35. Claims 15 and 20 depend from claims 13 and 18, respectively, and contain commensurate limitations. *Id.* at 27:16–17, 27:17–18.

Petitioner presents evidence that Flick ’885 teaches or suggests the subject matter of these claims by disclosing both reading vehicle device codes from a vehicle device (Ex. 1024, 3:10–18, 8:42–45, Figs. 5–7, claim 24) and writing device codes to a vehicle device (*id.* at 8:64–9:1). Pet. 71. We find that Petitioner’s contentions are persuasive and are supported by the cited record.

Patent Owner does not make any specific arguments regarding these claims. *See generally* PO Resp. Based on the complete record presented, we find Petitioner has demonstrated persuasively that Flick ’885 teaches or suggests the subject matter recited in claims 6, 7, 14, 15, 19, and 20.

(e) Claims 8, 16, and 21

Claim 8 depends from claim 1, and recites the “downloading interface is also for permitting downloading of at least one programming instruction for said multi-vehicle compatible controller.” Ex. 1001, 26:37–39. Claims 16 and 21 depend, respectively, from claims 13 and 18, and contain commensurate limitations. *Id.* at 27:19–21, 28:23–25.

Petitioner presents evidence that the combination of Hunt and Flick ’885 teaches or suggests the subject matter of these claims because Hunt teaches that a controller can be implemented by running firmware or software that controls communication with vehicle devices. Pet. 71–72 (citing Ex. 1023, 1:39–46, 6:26–38, 10:49–54). Hunt states that such a controller can be “programmed when the computer system is manufactured or . . . at a later date.” Ex. 1023, 11:11–14; *see also* Ex. 1003 ¶ 440. Citing expert testimony of Mr. Miller, which we credit, Petitioner states that it was well-known to update a controller’s firmware and/or software through a wired or wireless interface of the type in Petitioner’s proposed combination of Flick ’885 and Hunt. Pet. 72 (citing Ex. 1003 ¶ 441); *see also supra* Section III.C.2.(e) (discussing Petitioner’s showing as to limitation 1[e]). Petitioner further states, also relying on the testimony of Mr. Miller (which we credit), that Hunt would have motivated the ordinarily skilled artisan to combine Flick ’885 with Hunt so the downloading interface(s) would permit downloading programming instructions to the MVCC to allow programming

and/or programming updates post-manufacture, and such ordinarily skilled artisan would have had a reasonable expectation of success because this is the “predictable use of prior art elements according to their established functions.” Pet. 72 (citing *KSR*, 550 U.S. at 417; Ex. 1003 ¶ 442).

We find that Petitioner’s contentions are persuasive and are supported by the cited record.

Patent Owner does not make any specific arguments regarding these claims. *See generally* PO Resp. Based on the complete record presented, we find Petitioner has demonstrated persuasively that Flick ’885 teaches or suggests the subject matter recited in claims 8, 16, and 21.

(f) Claims 9, 10, 17, and 22

Claim 9 depends from claim 1, and recites “a remote transmitter,” and adds “wherein said multi-vehicle compatible controller also performs at least one vehicle remote control function responsive to said remote transmitter.” Ex. 1001, 26:41–44. Claims 17 and 22 depend, respectively, from claims 13 and 18, and contain commensurate limitations. *Id.* at 27:23–26, 28:27–30. Claim 10 depends from claim 9 and adds “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.” Ex. 1001, 26:46–49.

Petitioner presents evidence that Flick ’885 teaches or suggests the subject matter of these claims by disclosing a remote transmitter as part of a “control system.” Pet. 72 (citing Ex. 1024, 5:16–63, Figs. 1, 2, 4, claim 11). Petitioner states that Flick ’885’s control system provides “vehicle remote control functions” including “an alarm or security system controller,” “keyless entry for a vehicle,” and “remote starting a vehicle engine.” *Id.* at

72–73 (citing Ex. 1024, 3:27–35; *id.*, 5:38–41). The “vehicle remote control functions” in Flick ’885 are “responsive” to signals from the “remote transmitter.” *Id.* (citing Ex. 1024, 3:49–53, 4:5–8, 6:56–7:49, 10:18–36, claim 25). We find that Petitioner’s contentions are persuasive and are supported by the cited record.

Patent Owner does not make any specific arguments regarding these claims. *See generally* PO Resp. Based on the complete record presented, we find Petitioner has demonstrated persuasively that Flick ’885 teaches or suggests the subject matter recited in claims 9, 10, 17, and 22.

(g) *Claim 11*

Claim 11 depends from claim 1 and adds “wherein said wireless position determining device comprises a Global Positioning System (GPS) receiver.” Ex. 1001, 26:51–52.

Petitioner presents evidence that Hunt combined with Flick ’885 teaches or suggests the subject matter of this claim by disclosing a GPS receiver. Pet. 73 (citing Ex. 1023, 3:26–27, 5:43–45); *see also supra* III.C.2.(b) (discussing Petitioner’s showing as to the vehicle position determining device recited in limitation 1[c]). We find that Petitioner’s contentions are persuasive and are supported by the cited record.

Patent Owner does not make any specific arguments regarding these claims. *See generally* PO Resp. Based on the complete record presented, we find Petitioner has demonstrated persuasively that Flick ’885 teaches or suggests the subject matter recited in claim 11.

(h) *Claim 12*

Claim 12 depends from claim 1 and adds “a housing containing said vehicle position determining device, said wireless communications device,

said multi-vehicle compatible controller, and said downloading interface.”
Ex. 1001, 26:54–57.

Petitioner presents evidence that the combination of Hunt and Flick ’885 teaches or suggests the subject matter of this claim because Hunt discloses “a housing containing the vehicle position determining device (GPS module and GPS antenna), the wireless communications device (radio antenna, wireless transmitter) the MVCC and the downloading interface.” Pet. 73; *see also* Pet. 44–45 (citing Ex. 1023, 3:4–9, 3:17–33, 3:50–57, 4:34–36, 5:39–42, 5:43–45, 6:41–46). We find that Petitioner’s contentions are persuasive and are supported by the cited record.

Patent Owner does not make any specific arguments regarding these claims. *See generally* PO Resp. Based on the complete record presented, we find Petitioner has demonstrated persuasively that Flick ’885 teaches or suggests the subject matter recited in claim 12.

(i) *Additional Claims: Conclusion*

For the foregoing reasons, we find Petitioner has demonstrated persuasively that the combination of Flick ’885 and Hunt teaches or suggests all of the limitations of claims 2–22, and that the ordinarily skilled artisan would have been motivated to make the combination with a reasonable expectation of success.

We turn now to the parties’ arguments and evidence regarding objective evidence of nonobviousness (also termed secondary considerations).

4. *Objective Evidence of Nonobviousness (Secondary Considerations)*

Patent Owner argues that Petitioner’s arguments for obviousness must fail in light of Patent Owner’s “compelling evidence of secondary

considerations, such as licensing, commercial success, copying by others, customer need, and limited value for accused products without the invention.” PO Resp. 44; *id.* at 44–53; PO Sur-reply 11–21. Petitioner argues that Patent Owner’s evidence suffers from multiple insufficiencies, and also that the Petition presents a strong case of obviousness that cannot be overcome by secondary considerations. Pet. 67–68; Pet. Reply 5–16.

(a) *Legal Principles*

Notwithstanding what the teachings of the prior art would have suggested to one skilled in the art, objective evidence of nonobviousness (also termed “secondary considerations”) may lead to a conclusion that the challenged claims would not have been obvious. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984). Objective evidence of nonobviousness may include long-felt but unsolved need, failure of others, unexpected results, commercial success, copying, licensing, industry praise, and expert skepticism. *Mintz v. Dietz & Watson, Inc.*, 679 F.3d 1372, 1379 (Fed. Cir. 2012). Such evidence “may often be the most probative and cogent evidence in the record” and “may often establish that an invention appearing to have been obvious in light of the prior art was not.” *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1349 (Fed. Cir. 2012) (citing *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538 (Fed. Cir. 1983)).

To be accorded substantial weight in an obviousness analysis, “the evidence of secondary considerations must have a ‘nexus’ to the claims, i.e., there must be ‘a legally and factually sufficient connection’ between the evidence and the patented invention.” *Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1373 (Fed. Cir. 2019) (citing *Henny Penny Corp. v. Frymaster*

LLC, 938 F.3d 1324, 1332 (Fed. Cir. 2019)). As our reviewing court has consistently held, there is no nexus “unless the evidence presented is ‘reasonably commensurate with the scope of the claims.’” *ClassCo, Inc. v. Apple, Inc.*, 838 F.3d 1214, 1220 (Fed. Cir. 2016) (quoting *Rambus Inc. v. Rea*, 731 F.3d 1248, 1257 (Fed. Cir. 2013)). The patentee “bears the burden of showing that a nexus exists.” *WMS Gaming, Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1359 (Fed. Cir. 1999). A nexus is presumed when “the patentee shows that the asserted objective evidence is tied to a specific product and that product ‘embodies the claimed features, and is coextensive with them.’” *Fox Factory*, 944 F.3d at 1373 (quoting *Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1072 (Fed. Cir. 2018)). On the other hand, “[w]hen the thing that is commercially successful is not coextensive with the patented invention—for example, if the patented invention is only a component of a commercially successful machine or process,’ the patentee is not entitled to a presumption of nexus.” *Id.*

If “the patentee has presented a *prima facie* case of nexus, the burden of coming forward with evidence in rebuttal shifts to the challenger . . . to adduce evidence to show that the commercial success was due to extraneous factors other than the patented invention.” *Demaco Corp. v. F. Von Langsdorff Licensing, Ltd.*, 851 F.2d 1387, 1393 (Fed. Cir. 1988). Whether a rebuttable presumption of nexus arises “turns on the nature of the claims and the specific facts.” *Teva Pharm. Int’l GmbH v. Eli Lilly & Co.*, 8 F.4th 1349, 1362 (Fed. Cir. 2021). A finding that a presumption of nexus is not warranted does not end the inquiry into secondary considerations, because “the patent owner is still afforded an opportunity to prove nexus by showing that the evidence of secondary considerations is the ‘direct result of the

unique characteristics of the claimed invention.”” *Fox Factory*, 944 F.3d at 1373–74 (citing *In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996)).

Following these principles, the Board employs a two-step analysis in evaluating whether a patentee has established a nexus between the evidence concerning objective indicia of non-obviousness and the merits of the claimed invention. *See Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, Paper 33 at 32–33 (PTAB Jan. 24, 2020) (precedential). Initially, the Board considers whether the patentee has demonstrated that the “products are coextensive (or nearly coextensive) with the challenged claims,” resulting in a rebuttable presumption of nexus. *Id.* at 33. Absent a presumption of nexus, the Board considers whether the patentee has demonstrated “a legally and factually sufficient connection” between the evidence and the claimed invention. *See Henny Penny Corp. v. Frymaster LLC*, 938 F.3d 1324, 1332 (Fed. Cir. 2019); *Lectrosonics*, IPR2018-01129, Paper 33 at 33.

(b) *Prior Board Decisions in Reexamination*

Patent Owner relies on and repeatedly cites to the Board’s decisions in *Ex parte Omega Patents, LLC*, Appeal No. 2018-008119 (Nov. 3, 2018) (“*Omega Patents I*,” Ex. 1012), and *Ex parte Omega Patents, LLC*, Appeal No. 2022-003758 (Dec. 1, 2022) (“*Omega Patents II*,” Ex. 1017).

Patent Owner argues that, through these decisions, the Board has already twice confirmed Patent Owner’s evidence of secondary considerations, “taking into consideration jury verdicts, Federal Circuit appeals, and testimony of an infringer admitting to copying and limited value of product without the claimed invention.” PO Resp. 47 (citing Ex. 2004, 26:11–20; Ex. 2005, 45:3–19, 46:25–47:19; Ex. 2006, 65:15–24, 102:16–103:13, 155:4–13; Ex. 2010 ¶¶ 208, 210).

Petitioner acknowledges that the Board previously credited Patent Owner's secondary considerations in the reexamination proceedings, but argues that the Petition relies on different references than the reexamination proceedings and that the Petition presents a strong case of obviousness that cannot be overcome by secondary considerations. Pet. 67–68. Petitioner also contends that “the obviousness analysis in [Patent Owner's] *ex parte* appeal decisions lacks evidentiary support because [Patent Owner] misrepresented the content of licenses allegedly showing non-obviousness, and never provided them to the Office.” Pet. Reply 11; Pet. 3–4, 8, 81–82.¹¹

It is true that the Board previously mentioned evidence of secondary considerations presented by Patent Owner, including “licensing, commercial success, copying by others, customer need, and the limited value for accused products without the invention,” in *Omega Patents I* and *Omega Patents II*. See Ex. 1012, 14; Ex. 1017, 13–15. Specifically, in *Omega Patents I*, the Board found that the asserted prior art reference Chou “does not teach or suggest the recited multi-vehicle compatible controller and downloading interface” and that “this deficiency is dispositive regarding [the Board's]

¹¹ Petitioner states that Patent Owner argued during these *ex parte* appeals that licenses demonstrated nonobviousness, but did not put any of the licenses into the record, filing only an “exhibit listing” from litigation with CalAmp without filing any actual exhibits. Pet. 81 (citing Ex. 1016, 11:22–23, Ex. 1015, 38). Petitioner further represents that “[Patent Owner's] *CalAmp* ‘exhibit listing’ (Ex. 1006, 1171–1189; Ex. 1068) included twenty-four [Patent Owner] agreements presented at trial. Twenty-two are irrelevant: one transferred the inventor's patents to [Patent Owner] (Ex. 1113); fifteen settled infringement disputes on other patents without licensing the '278 patent (Exs. 1094–1108); six involved portfolios without licensing the '278 patent (Exs. 1092–1093, 1109–1112).” *Id.* at 81–82. We further address below Patent Owner's evidence of record regarding licensing.

reversing the Examiner’s obviousness rejection.” Ex. 1012, 14. The Board added, without discussion or analysis, that Appellant’s evidence of secondary considerations “only further weighs in favor of Appellant.” *Id.* In *Omega Patents II*, the Board found that the prior art taught a wireless appliance that was “multi-vehicle compatible,” but that “Appellant’s evidence of secondary considerations . . . outweighs the evidence of obviousness on this record.” Ex. 1017, 16. In so doing, the Board relied on the jury verdict in *Omega Patents, LLC v. CalAmp Corp.*, Case No. 6:13-cv-01950 (M.D. Fla.), noting that the jury verdict therein stated that others’ acceptance of licenses was due to merits of the claimed invention. *Id.*

The Board weighs secondary considerations against the scope and content of the *asserted prior art* and any differences between that art and the challenged claims. *See WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1328 (Fed. Cir. 2016) (explaining that “the strength of *each* of the *Graham* factors must be weighed in every case and must be weighted en route to the final determination of obviousness or non-obviousness”). The Board in *Omega Patents I* and *Omega Patents II* determined that Patent Owner’s evidence of secondary considerations either outweighed or “further weigh[ed]” against the Examiner’s evidence of obviousness based on different prior art than we have before us. *See* Ex. 1012, 14; Ex. 1017, 13–15.

While we do not second-guess our colleagues’ decisions that Patent Owner’s evidence of secondary considerations either outweighed or “further weigh[ed]” against the Examiner’s evidence of obviousness based on other prior art then before the Board in the reexamination proceedings, as we note above, we cannot say the same based on the combination of Flick ’885 and

Hunt. We, therefore, undertake below our own evaluation of the evidence presented on the record before us.

(c) *Licensing*

Patent Owner argues that the '278 patent has been “licensed by numerous parties over the years,” has been “included in a half-dozen licenses provided” by Patent Owner, and is “within the portfolios of patents that have generated in excess of \$70MM in patent royalties.” PO Resp. 47 (citing Ex. 2014 (Tregellis Decl.) ¶¶ 18–20). Patent Owner relies in particular on a jury verdict in the first trial between Patent Owner and CalAmp,¹² in which the jury answered “yes” to the question of “Did others accept licenses under patents because of the merits of the claimed invention?” *Id.* at 47–48 (citing Ex. 1027 (verdict form)).¹³

Patent Owner does not, however, acknowledge that the jury was considering infringement and validity of *several* patents, not just the '278 patent, and the underlying licenses themselves involved *dozens* of patents and pending applications, not just the '278 patent. *See* Ex. 1027, 2–6 (verdict form, showing jury consideration of three patents *in addition to* the '278 patent); *id.* at 9 (Question 5, asking about different evidence of secondary considerations, none of which are broken out by patent)). Patent

¹² *Omega Patents, LLC v. CalAmp Corp.*, Case No. 6:13-cv-01950 (M.D. Fla.).

¹³ Patent Owner also notes that this verdict was challenged on appeal, and the Federal Circuit affirmed the finding rejecting invalidity of the '278 patent. PO Resp. 48 (citing *Omega Patents, LLC v. CalAmp Corp.*, 920 F.3d 1337, 1343 (Fed. Cir 2019)). In so doing, however, the Federal Circuit did not evaluate or otherwise comment on any evidence of secondary considerations; rather, the affirmance of the verdict against invalidity was premised on rejecting the defendant’s claim construction arguments. *See Omega Patents*, 920 F.3d at 1342–43.

Owner's reliance on a jury finding that others accepted licenses because of the merits of the claimed invention is, therefore, misplaced because such finding did not, and could not, make a distinction between a license to the '278 patent and many other patents.

Moreover, none of the license agreements in the record before us are directed to only the '278 patent; rather, they all cover dozens of other patents and, in some cases, are settlement agreements spanning multiple litigations.¹⁴ *See* Ex. 1090 (settlement agreement and portfolio license covering dozens of patents and pending applications); Ex. 1091 (portfolio license covering dozens of patents and pending applications); Ex. 1092 (settlement agreement and portfolio license covering dozens of patents and pending applications); Ex. 1093 (portfolio license agreement covering dozens of patents and pending applications); Ex. 2020 (settlement agreement covering two litigations and 8 patents in addition to the '278 patent); Ex. 2021 (settlement agreement and portfolio license covering dozens of patents and pending applications). As such, they are of limited value in assessing objective indicia of nonobviousness. *See, e.g., Merck & Cie v. Gnosis S.P.A.*, 808 F.3d 829, 838 (Fed. Cir. 2015) (“[T]he Board’s finding that the evidence of licensing should not be afforded much weight was reasonable” where license covered several patents.); *Iron Grip Barbell v. USA Sports*, 392 F.3d 1317, 1324 (Fed. Cir. 2004) (licenses taken to settle litigation have no probative value on non-obviousness “because it is often

¹⁴ As noted *supra* n.12, Petitioner represents (and Patent Owner does not dispute) that none of the actual agreements were before the Board in the previous *ex parte* appeals, in which the Board found evidence of secondary considerations weighed in favor of nonobviousness. *See* Exs. 1012, 1017.

‘cheaper to take licenses than to defend infringement suits’” (citation omitted)).

For the foregoing reasons, we give little weight to the objective evidence associated with licensing.

(d) Commercial Success

“Demonstrating that an invention has commercial value, that it is commercially successful, weighs in favor of its non-obviousness.” *WBIP*, 829 F.3d at 1337. “When a patentee can demonstrate commercial success, usually shown by *significant sales in a relevant market*, and that the *successful product is the invention disclosed and claimed in the patent*, it is presumed that the commercial success is due to the patented invention.” *J.T. Eaton & Co. v. Atl. Paste & Glue Co.*, 106 F.3d 1563, 1571 (Fed. Cir. 1997) (emphases added); *WBIP*, 829 F.3d at 1329.

Patent Owner contends that “commercial success” of the claimed invention is demonstrated by the first jury’s finding of infringement of the ’278 patent in the first CalAmp trial, and a subsequent jury’s award of damages specifically for infringement of the ’278 patent in the second CalAmp trial. PO Resp. 48–50; *see* Ex. 1027; Ex. 1028. In particular, Patent Owner asserts that the second jury’s finding that CalAmp had sold over 917,000 units that were found to infringe the ’278 patent is “extensive [evidence of] sales of infringing products” that “is evidence of commercial success directly tied to the ’278 patent.” PO Resp. 49–50 (citing Ex. 1028).

We perceive several significant weaknesses in Patent Owner’s showing of alleged commercial success. First, as our reviewing court has explained, establishing that a product infringes a patent is not enough to show a nexus between a claimed invention and commercial success.

See Fox Factory, 944 F.3d at 1377 (holding that a *prima facie* case of nexus cannot be made by simply showing that “the patent claims broadly cover the product that is the subject of the evidence of secondary considerations”).

Indeed, the Board has repeatedly found infringement verdicts to have minimal value in establishing objective indicia of nonobviousness.

See, e.g., Facebook, Inc. v. Express Mobile, Inc., IPR2021-01455, Paper 39 at 65–68 (PTAB Mar. 1, 2023); *Mangrove Partners v. VirnetX Inc.*, IPR2015-01047, Paper 122 at 25 (PTAB July 14, 2020); *Ingenico Inc. v. IOENGINE, LLC*, IPR2019-00929, Paper 53 at 93–94 (PTAB Sept. 21, 2020).

As Petitioner contends, there is insufficient evidence that the alleged commercial success is tied to the elements of the ’278 patent—either individually or as a whole. Pet. Reply 6–7. Petitioner presents evidence that “[t]he identified products—CalAmp LMU-3000 and LMU-3030—**include significant unclaimed features** like a ‘3-axis accelerometer’ for ‘hard braking, cornering’ and ‘impact detection,’ and an ‘on-board alert engine PEG (Programmable; Event Generator).” *Id.* at 6 (citing Ex. 2016, 1, 2 Ex. 2017, 1). Indeed, the very damages award Patent Owner relies upon to show alleged commercial success was *vacated* by the Federal Circuit on the ground that it was “unsustainable” because Patent Owner had “failed to show the incremental value of the ’278 patent (or that the patented improvement drove demand for the entire accused product).” *Omega Patents*, 13 F.4th at 1376. As support, the Federal Circuit cited the very unpatented features referenced by Petitioner, stating that “[i]t is undisputed that [‘3-axis accelerometer’ and ‘industry leading on-board alert engine’] are not inventive aspects of the asserted [’278 patent] claims.” *Id.* “In sum,”

concluded the Federal Circuit, “we conclude that the jury could not reasonably have found that the multi-vehicle-compatibility feature of the LMUs drove demand for the entire LMU product.” *Id.* at 1378.

Second, even if we accepted Patent Owner’s contention that there is a nexus between the invention claimed in the ’278 patent and the sales of over 900,000 units, the evidence of commercial success would remain weak. In particular, there is no evidence in the record before us of *relative market share* establishing that the CalAmp products underlying the jury’s verdict were a commercial success. *See, e.g., In re Applied Materials, Inc.*, 692 F.3d 1289, 1300 (Fed. Cir. 2012) (“An important component of the commercial success inquiry in the present case is determining whether Applied had a significant market share”). Patent Owner does not provide evidence allowing us to evaluate how the second jury’s damages award relates to the overall industry—in particular, the record does not reflect the scope of that industry or CalAmp’s place within it. *Cf. In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996) (noting that “evidence related solely to the number of units sold provides a very weak showing of commercial success, if any”).

Patent Owner’s only attempt to fill this gap is by pointing to the first jury verdict, in which the jury answered “yes” to the question of whether the “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 features of the product other than those found in the claim.” PO Resp. 48–49 (citing Ex. 1027). However, that question was in a verdict form involving findings of infringement of multiple claims of four patents, and the finding of “commercial success” was not broken out by

patent or product, leaving us no basis to assess the merits of that finding. Ex. 1027, 2–7, 9. In addition, the second jury’s finding of infringement of the ’278 patent by over 917,000 units was part of a verdict by a different jury, rendered years *after* the first verdict, with no corresponding question regarding commercial success. *Compare* Ex. 1027 (first verdict form), *with* Ex. 1028 (second verdict form). Thus, we cannot draw any connections between the first jury’s finding of “commercial success” in a verdict form covering four patents and the second jury’s award of damages for infringement of the ’278 patent in particular.

Further undermining Patent Owner’s proffered evidence of commercial success is the fact that the juries found the same products infringed multiple claims of at least *two patents other than* the ’278 patent. *See* Exs. 1027, 1028. As our reviewing court has explained, “[c]ommercial success is relevant because the law presumes an idea would successfully have been brought to market sooner, in response to market forces, had the idea been obvious to persons skilled in the art.” *Merck & Co. v. Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1376 (Fed. Cir. 2005). Where, however, “market entry by others was precluded [due to blocking patents], the inference of non-obviousness of [the asserted claims], from evidence of commercial success, is weak.” *Id.* at 1377.

Here, Petitioner contends that the other patents found to be infringed by the same CalAmp products are “blocking patents” that preclude a finding of commercial success of the ’278 patented invention. Pet. 78–79.¹⁵

¹⁵ Petitioner also points out that the jury rendering the second verdict “did not consider invalidity” and “the Federal Circuit found the award ‘unsustainable,’ vacated it, and remanded for new damages trial.”

Petitioner points out that, in addition to finding infringement of the '278 patent in the *CalAmp* trials, the juries also found infringement by the same products of two earlier patents—the Flick '885 patent (which is asserted as prior art here) and U.S. Patent No. 7,671,727 (“Flick '727”). *Id.* at 78; Ex. 1027, 4; Ex. 1028, 2–5. Petitioner contends that the Flick '885 and Flick '727 patents “eviscerate [Patent Owner’s] commercial success because ‘a blocking patent may deter non-owners and non-licensees from investing the resources needed to make, develop, and market such a later, ‘blocked’ invention.” Pet. 78–79 (citing *Chemours Company v. Daikin Industries*, 4 F.4th 1370, 1379 (Fed. Cir. 2021)). As our reviewing court has explained, an inference of nonobviousness from alleged evidence of commercial success is weak where market entry by others was precluded due to blocking patents. *Galderma Laboratories v. Tolmar*, 737 F.3d 731, 740 (Fed. Cir. 2013); *see also Solvay USA v. WorldSource Enterprises*, PGR2019-00046, Paper 45, 36 (Aug. 10, 2020) (“We . . . give less weight to Patent Owner’s evidence of alleged commercial success because it does not account for potential blocking patents[.]”), *affirmed*, No. 2021-1041 (Fed. Cir. June 10, 2022).

Patent Owner’s only response with regard to blocking patents is that “the second jury found damages specific to the 278 and to no other patents.” *See* Tr. 31:21–32:2; *see also* PO Sur-reply 14, n.3. In fact, however, the second jury found that the *same* CalAmp products that infringed the '278 patent *also infringed* the Flick '885 patent. Ex. 1028, 2–5. Patent Owner glosses over that fact by asserting that the second jury “did not award

Pet. Reply, 11, n.2 (citing *Omega Patents, LLC v. CalAmp Corp.*, 13 F.4th 1361, 1376, 1382 (Fed. Cir. 2021)).

damages for any units” under Flick ’885. PO Sur-reply 14, n.3. What Patent Owner does not reveal is that the reason no damages were awarded in the second trial for infringement of Flick ’885 is because the Federal Circuit had previously held that CalAmp could not be liable for direct infringement of the asserted claims of Flick ’885, only for inducing infringement (*Omega Patents*, 920 F.3d at 1353–54), and the second jury did not find that CalAmp had induced infringement (Ex. 1028, 3). The fact remains, however, that the same CalAmp products that were found to practice the earlier Flick ’885 patent, which is indisputably prior art in the present proceeding, were also found to practice the ’278 patent. Thus, Patent Owner’s alleged evidence of commercial success of the invention claimed in the ’278 patent based on the jury’s infringement findings is only further weakened by the existence of the Flick ’885 blocking patent.

For the foregoing reasons, we determine that, at best, Patent Owner’s evidence of commercial success is weak.

(e) Copying by Others

Patent Owner also relies on the jury verdict in the first CalAmp trial for evidence of copying by others, noting that the jury answered “yes” to the question “Did others copy the claimed invention?” PO Resp. 50 (citing Ex. 1027). Patent Owner contends “[t]he Jury’s finding of infringement of all of the asserted claims of the ’278 Patent established that CalAmp’s products correspond to the claimed invention, as did the significant sales volume (referenced above [second CalAmp verdict]) of products from CalAmp that embody the ’278 Patent.” *Id.* (italics omitted, bracketed text added).

Petitioner counters that “[c]opying requires *evidence* of efforts to replicate a specific product,” and an infringement verdict is not evidence of copying. Pet. 80 (quoting *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1246 (Fed. Cir. 2010)).

We agree with Petitioner that Patent Owner’s argument of alleged copying is not supported by the record. As we have noted repeatedly above, the jury verdict relied upon by Patent Owner covered four different patents and the jury’s finding of copying is not specific to any patent or accused product. *See* Ex. 1027.

Nor are we presented on this record with any evidence underlying that verdict aside from a finding of infringement. In that regard, as Petitioner aptly notes, our reviewing court has held that “[n]ot every competing product that arguably falls within the scope of a patent is evidence of copying; otherwise, every infringement suit would automatically confirm the nonobviousness of the patent.” Pet. 80 (quoting *Wyers*, 616 F.3d at 1246).

We determine that Patent Owner has not presented persuasive evidence of copying.

(f) *Customer Need and Limited Value*

Evidence of a long-felt but unsolved need tends to show nonobviousness because it is reasonable to infer that the need would not have persisted had the solution been obvious; however, “[a]bsent a showing of long-felt need or the failure of others, the mere passage of time without the claimed invention is not evidence of nonobviousness.” *Iron Grip Barbell*, 392 F.3d at 1325.

Patent Owner does not argue “long-felt” need in such terms, but argues that “there was a demonstrable customer need” for “multi-vehicle

databus compatibility in a vehicle tracking system” as described and claimed in the ’278 patent, which was “one of three patents asserted in the CalAmp litigation providing features for multi-vehicle compatibility via the data bus for a vehicle tracking system.” PO Resp. 50–51 (citing Ex. 2010 ¶ 169). Patent Owner also cites testimony by CalAmp engineers from the *CalAmp* litigation, as well as testimony from one of Patent Owner’s designated experts, Mr. Tregellis, as purportedly confirming that “such features drove demand for the infringing products and that the lack of such features reduced the value of the products.” *Id.* at 51 (citing Ex. 2005, 40:6–41:3, 46:25–48:19; Ex. 2014 ¶¶ 28–35, 38–41). Patent Owner explains that the multi-vehicle compatibility technology in the ’278 patent “avoided the need to have multiple SKUs (stock keeping units), thus it was a sales-driven request of customers to reduce the number of units needed by installers.” *Id.*

We find Patent Owner’s evidence of alleged “customer need” is attenuated with regard to the ’278 patent, and hence is of limited value. As we discuss *supra* with regard to Patent Owner’s contentions as to commercial success, Petitioner presents evidence that “[t]he identified products—CalAmp LMU-3000 and LMU-3030—**include significant unclaimed features** like a ‘3-axis accelerometer’ for ‘hard braking, cornering’ and ‘impact detection,’ and an ‘on-board alert engine PEG (Programmable; Event Generator).’” Pet. Reply 6 (citing Ex. 2016, 1, 2 Ex. 2017, 1). In vacating the same damages award that Patent Owner relies heavily upon as evidence of the value of the ’278 invention, the Federal Circuit agreed that Patent Owner had “failed to show the incremental value of the ’278 patent (or that the patented improvement drove demand for the entire accused product).” *Omega Patents*, 13 F.4th at 1376. As support, the

Federal Circuit cited the same unpatented features referenced by Petitioner, stating that “the jury could not reasonably have found that the multi-vehicle-compatibility feature of the LMUs drove demand for the entire LMU product.” *Id.* at 1378.

Petitioner also contends that Patent Owner’s arguments based on “customer need” fail “because there is no nexus.” Pet. Reply 15. In particular, Petitioner contends that Patent Owner’s allegation of customer need is based on “multi-vehicle databus compatibility in a vehicle tracking system,” but that feature *was already known* and cannot provide nexus. *Id.*; *see also* Pet. 79–80 (citing *In re Huai-Hung Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011) (noting that there can be no nexus to the merits of the claimed invention “[w]here the offered secondary consideration . . . results from something ***other than what is both claimed and novel in the claim***”).

Patent Owner counters that it was not any single feature but the *combination* of a multi-vehicle databus with a vehicle tracking system that formed the basis for customer need. PO Sur-reply 13. Patent Owner’s proffered evidence and testimony, however, focus on multi-vehicle compatibility. *See* Ex. 2005, 46:26–48:19; Ex. 2014 ¶¶ 36–41. And any contention that customers’ alleged long-felt need for multi-vehicle compatibility was finally met by the ’278 invention is undercut by the fact that Patent Owner admits (and the jury found) that CalAmp’s products were covered by at least two patents that pre-dated the ’278 patent. *See* PO Resp. 50–51 (stating that the ’278 patent was “one of three patents asserted in the CalAmp litigation providing features for multi-vehicle compatibility”); Exs. 1027, 1028 (jury verdicts). One of the other patents found to be infringed was the Flick ’885 patent that forms the primary basis for

Petitioner's challenge we have analyzed here. *Id.* Patent Owner has not denied that Flick '885 discloses multi-vehicle compatibility. *See supra* III.C.2.(c).

For the foregoing reasons, we give little weight to the objective evidence associated with long-felt customer need.

5. *Summary*

We have considered all of the arguments and evidence adduced at trial. For the reasons explained, we find Petitioner has persuasively demonstrated that the combination of Flick '885 and Hunt teaches or suggests all limitations of claims 1–22, and that the ordinarily skilled artisan would have been motivated to combine the references to achieve the claimed invention with a reasonable expectation of success. We also find that the value of Patent Owner's objective evidence of nonobviousness is weak in comparison to the evidence regarding the prior art under the first three *Graham* factors.

Accordingly, we find Petitioner has shown by a preponderance of the evidence that claims 1–22 of the '278 patent would have been obvious over the combination of Flick '885 and Hunt.

D. *Additional Grounds*

Petitioner additionally contends that claims 1, 4–6, 8, 11, 12, 18, 19, and 21 are anticipated by, or alternatively, would have been obvious over, Hunt. Pet. 10–48.

We have already determined herein that Petitioner has shown by a preponderance of the evidence that claims 1–22 are unpatentable as obvious over Flick '885 and Hunt. In reaching that conclusion, we have rendered a final written decision on claims 1, 4–6, 8, 11, 12, 18, 19, and 21. We,

therefore, need not reach Petitioner’s additional grounds covering those claims. The Federal Circuit has acknowledged the Board’s discretion in this regard. *See Boston Sci. Scimed, Inc. v. Cook Grp. Inc.*, 809 F. App’x. 984, 990 (Fed. Cir. 2020) (non-precedential) (agreeing that the Board has “discretion to decline to decide additional instituted grounds once the petitioner has prevailed on all its challenged claims”).

IV. MOTION TO EXCLUDE

The party moving to exclude evidence bears the burden of proving that it is entitled to the relief requested—namely, that the material sought to be excluded is inadmissible under the Federal Rules of Evidence (“FRE”). *See* 37 C.F.R. §§ 42.20(c), 42.62(a).

Petitioner moves to exclude Exhibits 2004–2006 as hearsay. Pet. Mot. Excl., 5–10. Petitioner argues that these exhibits comprise third-party testimony from a prior litigation that Patent Owner offers for the truth of the matters asserted therein, such as an accused infringer allegedly “admitting to copying” and describing the “limited value of [an infringing] product without the claimed invention.” *Id.* at 4–6 (citing PO Resp. 47). Petitioner further contends that no hearsay exception applies to render these exhibits admissible. *Id.* at 7–11. Petitioner also contends that the portions of Exhibits 2010 (Second McAlexander Decl.) and 2014 (Tregellis Decl.) that quote from those exhibits should be excluded as improper expert testimony. *Id.* at 12–14 (citing Ex. 2010 ¶¶ 41, 170, 171, 200, 210; Ex. 2014 ¶¶ 38–41, 43, 44).

Patent Owner opposes. PO Opp. Mot. Excl. Patent Owner argues, first, that “multiple federal courts have recognized that when evidence that may arguably qualify as hearsay is offered for the purpose of supporting

secondary considerations, it is admissible.” *Id.* at 3 (citing *Hynix Semiconductor, Inc. v. Rambus, Inc.*, No. C-00-20905 RMW, 2009 U.S. Dist. LEXIS 5765, at *50 (N.D. Cal. Jan. 16, 2009) (determining an article referencing praise in the industry was not hearsay “because it was admitted not for its truth, but as a proper secondary consideration”); *HTC Corp. v. Tech. Props.*, No. 5:08-cv-00882-PSG, 2013 U.S. Dist. LEXIS 129263, at *16 (N.D. Cal. Sep. 6, 2013) (determining that evidence of “industry acclaim is one of the secondary considerations that can be looked to in determining non-obviousness” served a non-hearsay purpose and therefore was admissible).

Patent Owner overstretches these holdings when asserting that they broadly support allowing hearsay evidence as long as it is offered in support of secondary considerations. To the contrary, these cases stand for the proposition that certain evidence comprising statements that are offered for the fact that they were made (that is, industry praise existed)—not for the underlying truth (that the products were worthy of praise)—is not hearsay at all. *E.g.*, *Hynix Semiconductor*, 2009 U.S. Dist. LEXIS 5765, at *50 (noting that “the article does not constitute hearsay because it was admitted *not for its truth*, but as a proper secondary consideration of nonobviousness in the form of *praise from others in the industry*”). Here, in contrast, Patent Owner offers the CalAmp employee testimony precisely for the truth of the matters asserted—that multi-vehicle compatibility drove customer demand for CalAmp’s products and that CalAmp engineers copied the claimed invention for that purpose. PO Resp. 47 (citing Exhibits 2005 and 2006 as testimony by “*an infringer* admitting to copying and limited value of product without the claimed invention”); *id.* at 51 (citing Exhibits 2004–2006 as evidence

“confirm[ing] there was a market need for the infringing products, because it provided for simple installation and enhanced capability”).

Patent Owner also asserts that the challenged testimony is subject to a hearsay exception under Fed. R. Evid. 803(3)—that is, the “state of mind” of the witnesses. PO Opp. Mot. Excl. 4–5. In particular, Patent Owner contends that that the testimony reflects the witnesses’ “state of mind as to the intent” of CalAmp’s product development, “namely the value and desirability of certain features included in the infringing products.” *Id.* at 4. But Patent Owner undercuts its own argument when it states that the testimony is allegedly evidence of the “value of the patented technology.” *See id.* As Petitioner points out, “[t]he state-of-mind exception ***does not permit . . . the [hearsay] declarant’s statements as to why he held the particular state of mind, or what he might have believed that would have induced the state of mind [T]he purpose of the exclusion from Rule 803(3) admissibility is to narrowly limit those admissible statements to declarations of condition—‘I’m scared’—and not belief—‘I’m scared because [someone] threatened me.’*” Pet. Reply Mot. Excl. 3 (quoting *United States v. Samaniego*, 345 F.3d 1280, 1282 (11th Cir. 2003) (“cleaned up” by Petitioner)). Here, Patent Owner is offering the testimony not as evidence of the state of mind of the CalAmp employees, but in support of the factual contention that the invention of the ’278 patent was of particular value to CalAmp. As such, it remains hearsay and is not subject to the “state of mind” exception.**

Finally, Patent Owner argues that even if the underlying testimony of the CalAmp employees were hearsay, the testimony of Mr. McAlexander and Mr. Tregellis that relied on that testimony remains admissible because

expert opinions may be based on hearsay as long as such underlying evidence is of the type that would be reasonably relied upon by experts in the particular field. PO Resp. Mot Excl. 7 (citing Fed. R. Evid. 703; *Curtis v. Alcoa, Inc.*, No. 3:06-CV-448, 2009 U.S. Dist. LEXIS 130437, at *16 (E.D. Tenn. Sept. 1, 2009)). Petitioner counters that the passages cited by Patent Owner of Mr. Tregellis’ testimony (Ex. 2014 ¶¶ 5, 6, 21, 25–27, and 35–36) as constituting “analysis” of the underlying testimony are not the subject of Petitioner’s motion to exclude. Pet. Reply Mot. Excl. 5. Rather, Petitioner seeks to exclude only portions of Mr. Tregellis’ testimony that repeat the hearsay testimony from Exhibits 2004–2006—namely, paragraphs 38–41 and 43–44. *Id.*

Ultimately, however, as we discuss *supra* Section III.C.4., we have found the challenged evidence in Exhibits 2004–2006 (and the corresponding paragraphs of Mr. Tregellis’ testimony that quotes from those exhibits) is entitled to little weight, for the reasons explained. Accordingly, although we are skeptical of Patent Owner’s evidentiary bases for admitting this evidence, we determine that the better course is to deny Petitioner’s motion to exclude.

V. CONCLUSION¹⁶

For the foregoing reasons, we find Petitioner has demonstrated, by a preponderance of the evidence, that claims 1–22 are unpatentable, as set forth in the table below:

Claims	35 U.S.C. §	Reference(s)/ Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1–22	103(a)	Hunt, Flick '885	1–22	
1, 4–6, 8, 11, 12, 18, 19, 21	102(a)	Hunt ¹⁷		
1, 4–6, 8, 11, 12, 18, 19, 21	103(a)	Hunt ¹⁸		
Overall outcome			1–22	

¹⁶ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

¹⁷ As explained *supra* (Section III.D.), we do not reach this ground in light of our determining claims 1, 4–6, 8, 11, 12, 18, 19, and 21 are unpatentable on another ground. See, e.g., *Trading Techs. Int'l, Inc. v. IBG LLC*, 921 F.3d 1378, 1386 (Fed. Cir. 2019) (affirming unpatentability on one asserted ground and declining to address unpatentability on an additional ground).

¹⁸ As explained *supra* (Section III.D.), we do not reach this ground in light of our determining claims 1, 4–6, 8, 11, 12, 18, 19, and 21 are unpatentable on another ground.

VI. ORDER

In consideration of the full trial record before us, and for the foregoing reasons, it is:

ORDERED that claims 1–22 of U.S. Patent No. 8,032,278 B2 are held unpatentable;

FURTHER ORDERED that Petitioner’s Motion to Exclude is denied; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2023-00504
Patent 8,032,278 B2

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE OFFICE OF THE UNDER SECRETARY OF COMMERCE
FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE
UNITED STATES PATENT AND TRADEMARK OFFICE

GEOTAB USA, INC. AND GEOTAB, INC.,
Petitioner,

v.

OMEGA PATENTS, LLC,
Patent Owner.

IPR2023-00504
Patent 8,032,278 B2

Before KATHERINE K. VIDAL, *Under Secretary of Commerce for
Intellectual Property and Director of the United States Patent and
Trademark Office.*

ORDER

The Office received a request for Director Review of the Final Written Decision for the above-captioned case. *See* Paper 46; Ex. 3100. The request was referred to me.

Upon consideration of the request, it is:

ORDERED that the request for Director Review is denied; and

FURTHER ORDERED that the Patent Trial and Appeal Board's Final Written Decision in this case is the final decision of the agency.

IPR2023-00504
Patent 8,032,278 B2

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