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Paper 11
Date: July 25, 2023

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

v.

OMEGA PATENTS, LLC,
Patent Owner.

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IPR2023-00504
Patent 8,032,278 B2

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Before BARRY L. GROSSMAN, AMBER L. HAGY, and KRISTI L. R. SAWERT, *Administrative Patent Judges*.

PER CURIAM.

DECISION
Granting Institution of *Inter Partes* Review
*35 U.S.C. § 314*

# 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 have authority under 35 U.S.C. § 314 to determine whether to institute an *inter partes* review. The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted unless "there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." If the Board institutes trial, it "will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim." 37 C.F.R. § 42.108(a); *see also PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018) (interpreting the statute to require "a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition").

Applying those standards, and upon considering the Petition, the Preliminary Response, the Reply, the Sur-Reply, and the evidence of record, we determine the information presented shows a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of at least one of the challenged claims of the '278 patent. Accordingly, we institute an *inter partes* review of all challenged claims (i.e., 1–22) of the '278 patent, based on the grounds asserted in the Petition.



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## II. BACKGROUND

### *A. Related Matters*

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.) and *Omega Patents, LLC v. Verizon Connect, Inc.*, Case No. 6:22-cv-02371-WWB-EJK (M.D. Fla.). Pet. xviii; Paper 5, 2 (Patent Owner's Mandatory Notices). Petitioner also identifies several other district-court proceedings as related matters, but does not indicate whether these proceedings involve the '278 patent. *See* 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. 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. *Id.* at 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.



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*B. Real Parties in Interest*

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.

*C. 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.

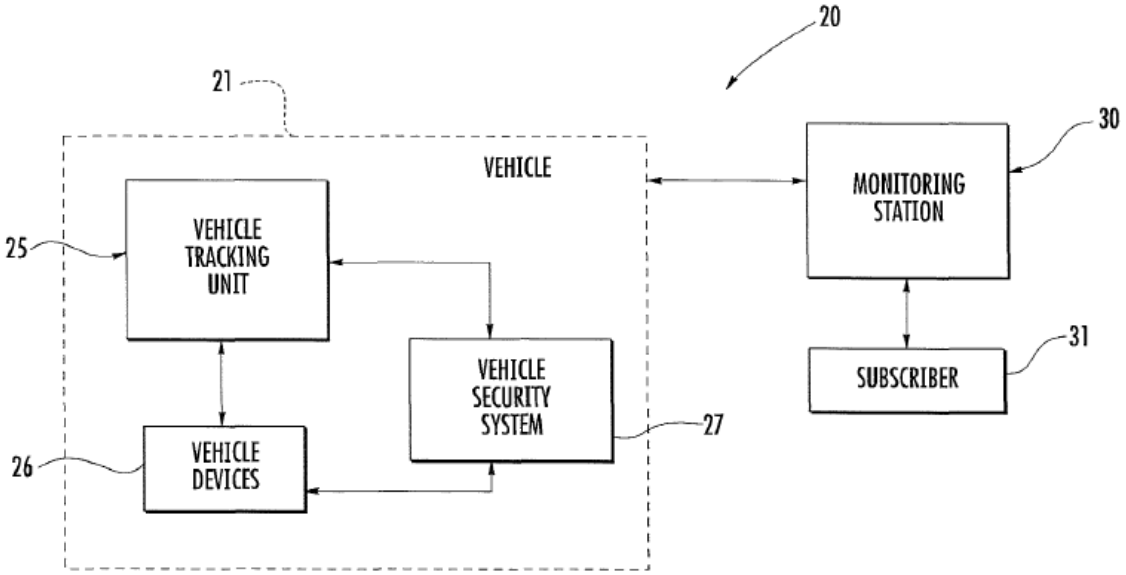


FIG. 1 is a block diagram of a multi-vehicle tracking system according to the '278 patent.

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



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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.

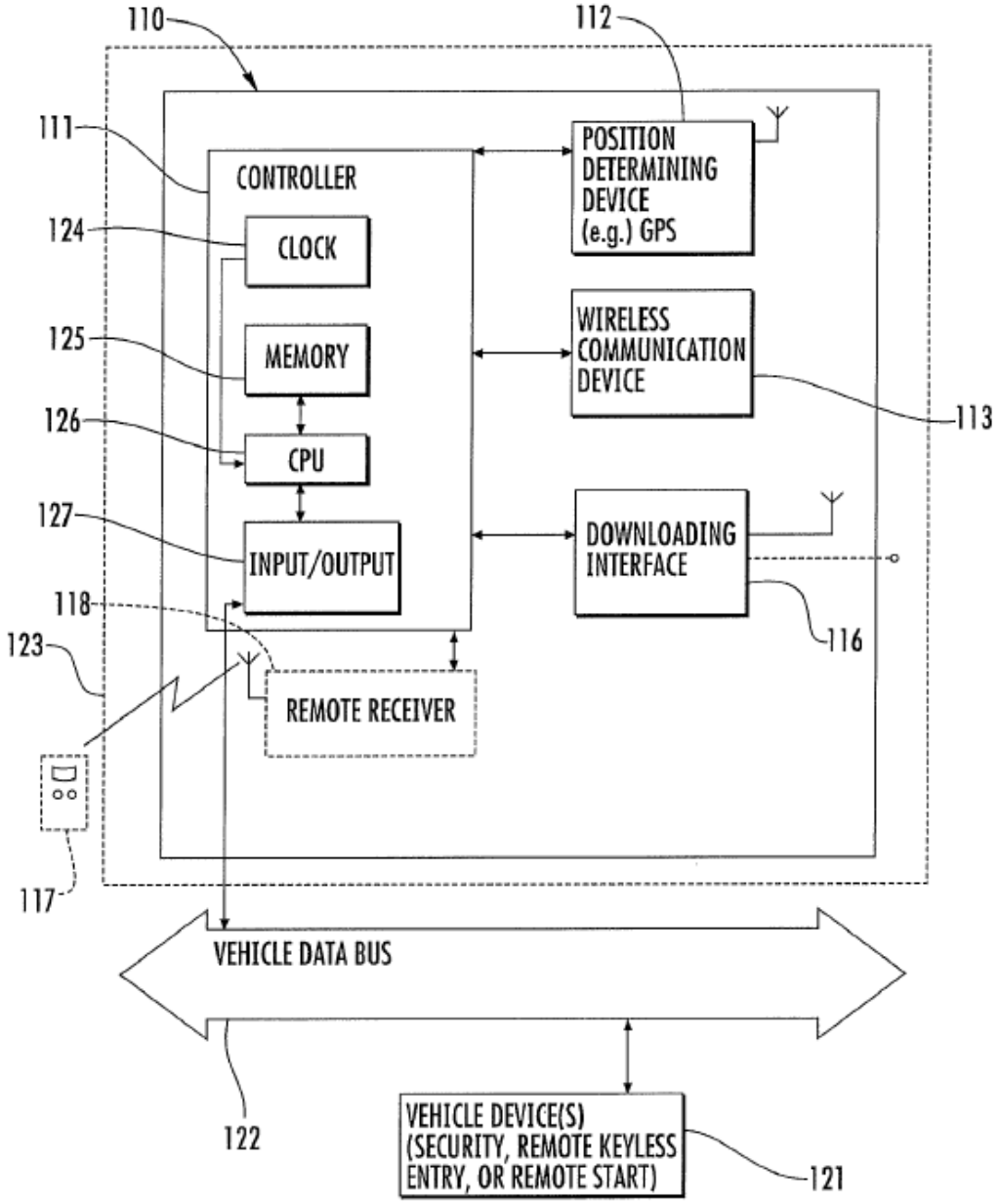


FIG. 10 is a simplified block diagram of a multi-vehicle compatible tracking unit according to the ’278 patent.



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As shown in Figure 10, the multi-vehicle compatible tracking unit 110 includes multi-vehicle compatible controller 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, 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, 33–34.



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*D. The Challenged Claims*

Petitioner challenges claims 1–22 of the '278 patent. Pet. 4. Claim 1, reproduced below, 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;
>
> [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 |



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*F. Asserted Grounds of Unpatentability*

Petitioner asserts the following grounds of unpatentability:

| Claim(s) Challenged | 35 U.S.C. § | Reference(s) |
|---|---|---|
| 1, 4–6, 8, 11–12, 18–19, 21 | 102[1] | Hunt |
| 1, 4–6, 8, 11–12, 18–19, 21 | 103 | Hunt |
| 1–22 | 103 | Flick '885, Hunt |

Pet. 5. Patent Owner disputes Petitioner's asserted grounds of unpatentability. *See generally* Prelim. Resp.

*G. The Prior Art*

We now 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). The wireless appliance "provide[s] a small-scale, wireless, internet-based system for monitoring and analyzing a vehicle's GPS and diagnostic data." *Id.* at 2:23–25. Figure 1A, reproduced below, is a block diagram of a wireless appliance according to Hunt. *Id.* at 1:49–50.

[1] The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) ("AIA"), amended 35 U.S.C. §§ 102 and 103. Petitioner states that "[n]o challenged claim warrants an effective filing date before July 3, 2007," which is before the effective date of the applicable AIA amendments. Pet. 4. Patent Owner does not contest or comment on Petitioner's asserted priority date. 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.



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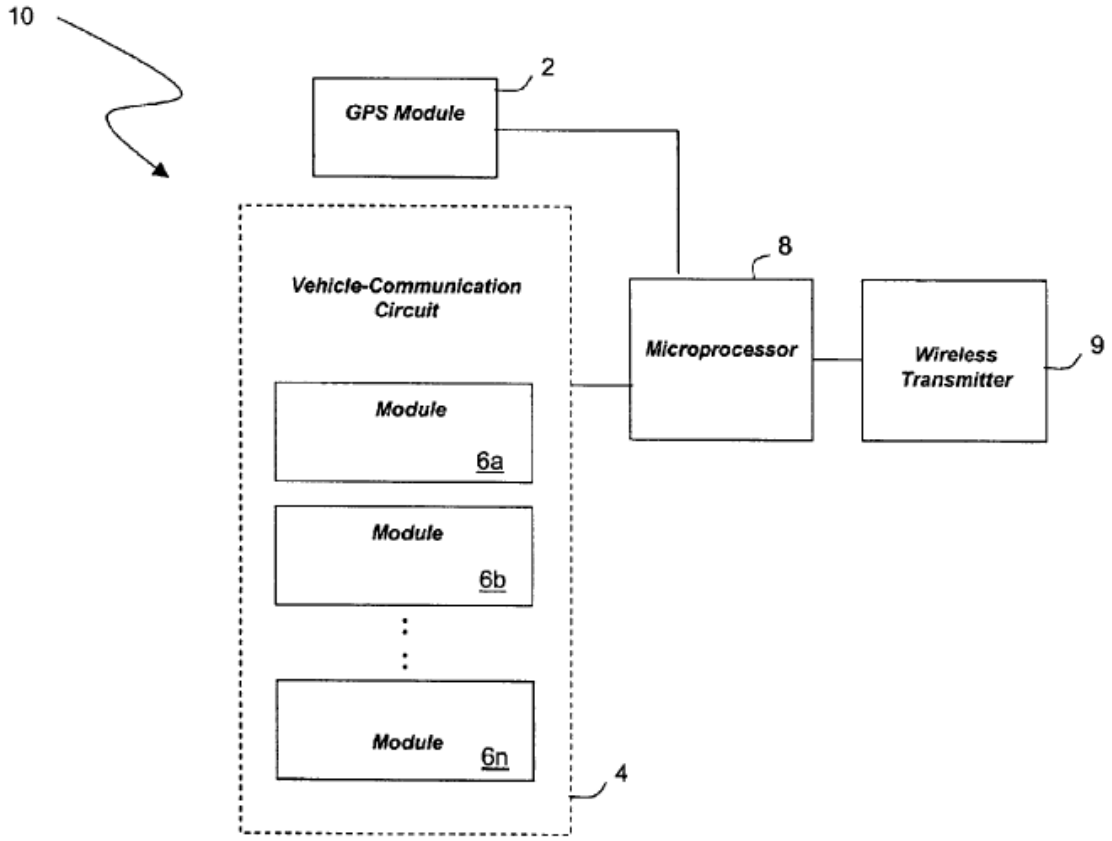


FIG. 1A is a block diagram of a wireless appliance according to one embodiment of Hunt.

The wireless appliance 10 includes a microprocessor 8, a vehicle-communication circuit 4, a GPS module 2, and a 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-communications 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



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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.

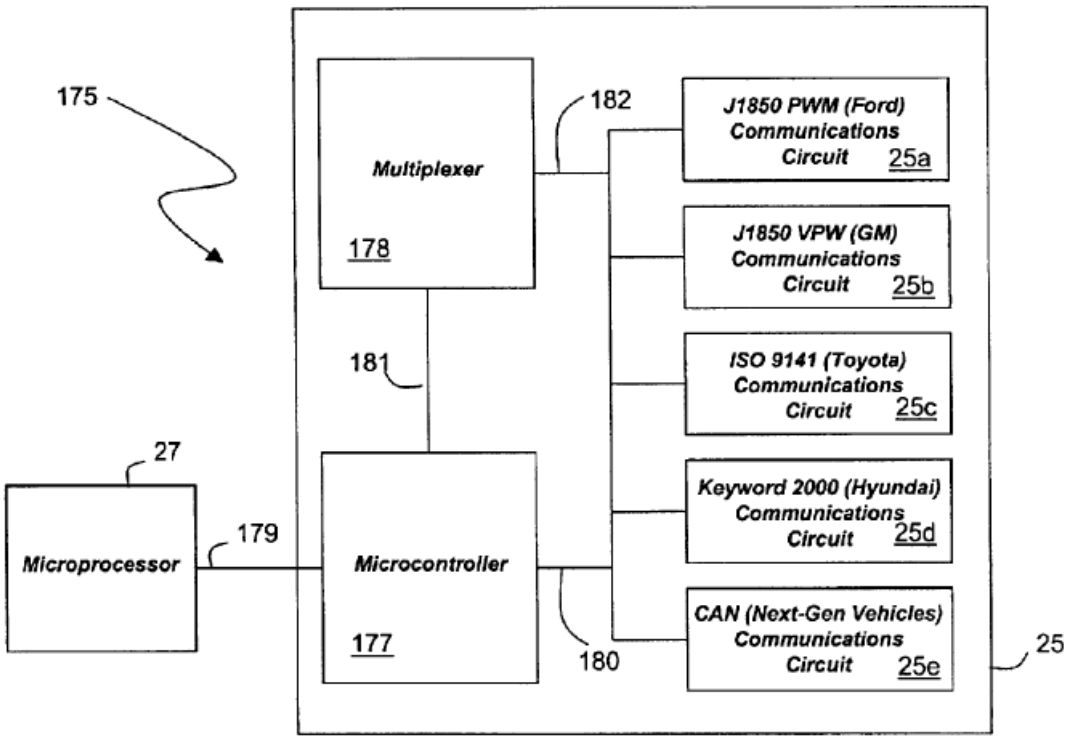


FIG. 5 is a block diagram of ASIC used for the vehicle-communication circuit according to one embodiment of Hunt.

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 an internal microcontroller 177. *Id.* at 8:51–58. The 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



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established, the microprocessor 27 communicates the specific protocol to the microcontroller 177 over data link 179. *Id.* at 9:18–20. The multiplexer 178 then selects one of the 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. In this way, 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," relates to multi-vehicle compatible control systems for remotely controlling various vehicle functions, e.g., vehicle security, remote keyless entry, and remote starting. Ex. 1024, code (57). Figure 1, reproduced below, is a block diagram of a MVCC system according Flick '885. *Id.* at 4:26–29.

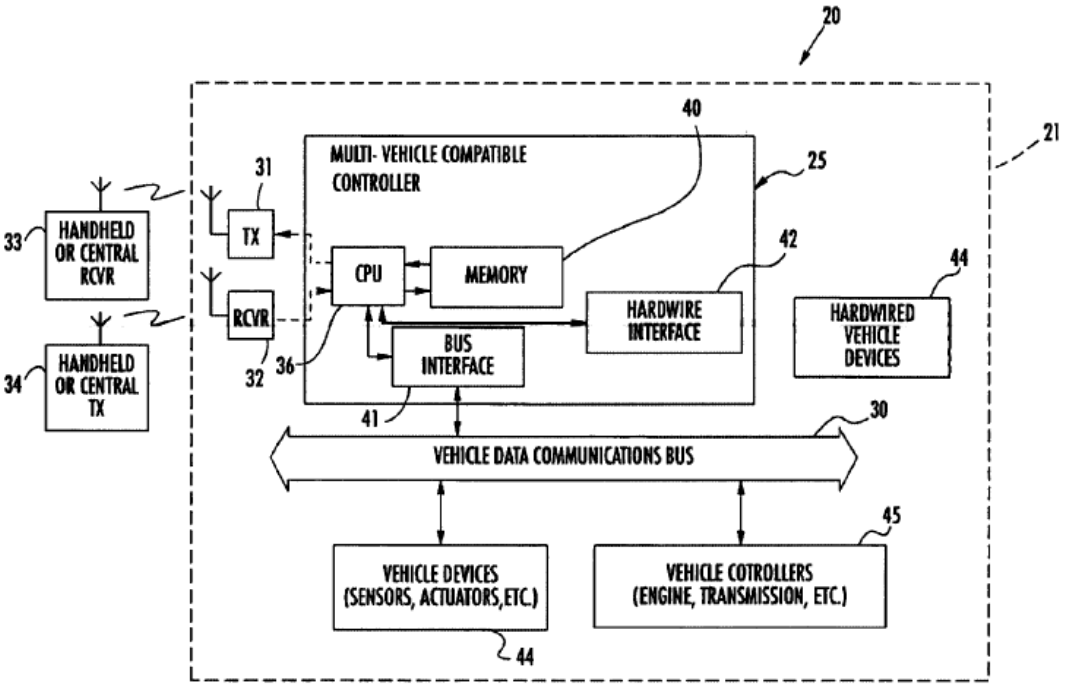


FIG. 1 is a block diagram of a multi-vehicle control system according to Flick '885.



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As shown in Figure 1, the control system 20 for vehicle 21 includes a MVCC 25 connected to vehicle devices 44 and vehicle controllers 45 through a vehicle data communications bus 30. *Id.* at 5:5–8; *see also id.* at 6:41–52. The control system also includes a transmitter 31 for communicating vehicle information (e.g., security alerts) to a remote receiver 33, and a receiver 32 for receiving instructions (e.g., remote starting) from a 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. DISCRETION UNDER 35 U.S.C. § 325(d)

Patent Owner argues that we should exercise our discretion under § 325(d) and deny institution. Prelim. Resp. 51–57. Petitioner opposes. Pet. 85–91. Upon consideration of the parties' respective arguments, discussed below, and the relevant non-exclusive factors set forth in *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 (Dec. 15, 2017) (precedential as to § III.C.5, first paragraph) ("*Becton Dickinson*"), as applied to the record in this case, we find that the factors do not weigh in favor of exercising our discretion to deny institution under § 325(d).

### *A. Legal Framework*

Section 325(d) provides that the Director may elect not to institute a proceeding if the challenge to the patent is based on matters previously presented to the Office. *Advanced Bionics, LLC v. Med-El*



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*Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 7 (PTAB Feb. 13, 2020) (precedential) ("*Advanced Bionics*").[2] In evaluating matters under § 325(d), the Board uses the following two-part framework: (1) determining whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of the first part of the framework is satisfied, determining whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims. *Id.* at 8.

We consider the non-exclusive *Becton Dickinson* factors, which "provide useful insight into how to apply the framework" under § 325(d). *Advanced Bionics*, 9. These non-exclusive factors include:

> (a) the similarities and material differences between the asserted art and the prior art involved during examination;
>
> (b) the cumulative nature of the asserted art and the prior art evaluated during examination;
>
> (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;
>
> (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art;
>
> (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and
>
> (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

[2] The Board institutes trial on behalf of the Director. 37 C.F.R. § 42.4(a); *Advanced Bionics*, 7 n.7.



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*Becton Dickinson*, 17–18 (formatting added). "If, after review of factors (a), (b), and (d), it is determined that the same or substantially the same art or arguments previously were presented to the Office, then factors (c), (e), and (f) relate to whether the petitioner has demonstrated a material error by the Office." *Advanced Bionics*, 10.

*B. Analysis*

The first part of the *Advanced Bionics* two-part framework relates to whether the same or substantially the same art or arguments were presented previously to the Office. *Advanced Bionics*, 10. Briefly, Patent Owner argues that the Office already considered Flick '885 and 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 argues 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 *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)); *see also id.* at 47–51.

Petitioner argues that "Hunt materially differs from prior art presented to the Office," Pet. 86–88, 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 argues that "[t]he Office has never considered the actual license agreements Omega misrepresented to the Office as establishing secondary considerations or the impact of blocking patents on



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Omega's alleged secondary considerations arguments." *Id.* at 89 (citing *id.* at 78–79, 81–83).

Upon consideration of the parties' respective arguments and evidence, we find that Petitioner has the better position. As noted above, Petitioner's grounds of unpatentability rely on Hunt alone or the combination of Hunt and Flick '885. *Supra* § II.F. There can be no dispute that Flick '885 was presented previously to the Office because it is a reference cited on the face of the '278 patent. *See* Ex. 1001, code (56). *See Advanced Bionics*, 7–8 (indicating that "previously presented art" includes "art made of record by the Examiner"). Hunt, however, was not presented previously to the Office. Hunt was not before the Examiner during the original prosecution leading to the '278 patent. *See* Ex. 1001, code (56). And the parties have not presented any evidence that Hunt was before the Office during a reexamination proceeding. *See generally* Pet.; Prelim. Resp.

Patent Owner argues, however, that Hunt is cumulative to Lowrey[3] and Lightner[4]—two references that were before the Office during the most recent reexamination of the '278 patent. Prelim. Resp. 53–55. In support of its argument, Patent Owner argues that Hunt, Lowrey, and Lightner share inventors in common, and "are directed to the same common technology"—i.e., wireless appliances that can track and transmit vehicle location. *See id.* at 53 (arguing that Lowrey "is directed to an internet based vehicle diagnostic system that includes a wireless appliance in electrical contact with an in-vehicle computer and that can report position date [sic] from a GPS device," Lightner "is directed to a wireless diagnostic system and

[3] U.S. Patent No. 6,611,740 B2 (Aug. 26, 2003) ("Lowrey"). Ex. 1059.
[4] U.S. Patent No. 6,636,790 B1 (Oct. 21, 2003) ("Lightner"). Ex. 2001.



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method for monitoring vehicles that includes a wireless appliance that can be physically and electrically installed," and Hunt "is directed to small-scale integrated vehicle telematics device that collects, transmits, and analyzes diagnostic and location-based data from a motor vehicle").

We have considered Patent Owner's arguments, but are not persuaded that Hunt is substantially the same art as Lowrey or Lightner. As an initial matter, we are not persuaded that common inventorship and common technology—standing alone—satisfy the "substantially the same art" test of the *Advanced Bionics* two-part framework. *Advanced Bionics* counsels us to review whether Petitioner relies on Hunt in substantially the same manner that the Office relied on Lowrey or Lightner during reexamination. *See Advanced Bionics* at 15 (in analyzing whether Charvin and Zimmerling are "substantially the same art," "review[ing] whether Petitioner relies on Charvin in substantially the same manner as the Examiner cited Zimmerling during prosecution such that Charvin discloses substantially the same information as Zimmerling in relevant part"). And here, as the party requesting that we exercise our discretion to deny institution under § 325(d), Patent Owner fails to meet its burden in this regard. 37 C.F.R. § 42.20(c). For example, Patent Owner does not explain how the Board or Examiner relied on the disclosures of Lowrey and Lightner during reexamination in the same manner as Petitioner relies on Hunt in the Petition. *See generally* Prelim. Resp. 53–55. Nor does Patent Owner present a detailed analysis of the similarities between the disclosures of Hunt and Lowrey or Lightner sufficient for us to determine that Hunt and Lowrey or Lightner disclose the same relevant information. *Id.*



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Patent Owner *does* argue that the Board previously determined that the collective teachings of the prior art (i.e., Lowrey and Lightner in *Omega Patents II* and Chou[5] in *Omega Patents I*) "fail to teach or suggest the claimed . . . downloading interface" of the '278 patent. Prelim. Resp. 54–55 (citing *Omega Patents II*, 12; *Omega Patents I* at 14). But here, we are persuaded by Petitioner's showing on this record that Hunt teaches or suggests claim limitations missing from the prior art previously considered by the Office. *See* Pet. 87–88.

For example, we find on this record and for institution that Hunt discloses the claimed "downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller." *See infra* § IV.C.1.b. We also find on this record and for institution that Hunt discloses the "housing" recited in claim 12, *see infra* § IV.C.3.a, that the Examiner found was not taught or suggested by Lowrey, *see* Ex. 1009, 494. For these reasons, we agree with Petitioner that Hunt provides additional information relevant to the claim limitations at issue that was not already presented to, and considered by, the Office. *Advanced Bionics*, 10.

We now turn to Patent Owner's arguments that "the compelling nature of secondary considerations has repeatedly been confirmed." Prelim. Resp. 56. It is true that the Board previously considered Patent Owner's evidence of secondary considerations, 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*, and found that evidence persuasive. *See* Ex. 1012, 14; Ex. 1017, 16.

[5] U.S. Patent No. 6,330,499 B1 (Dec. 11, 2011) ("Chou").



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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] reversing the Examiner's obviousness rejection." Ex. 1012, 14. The Board added 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.

Even so, we are not persuaded that the Board's treatment of secondary considerations in those cases compels discretionary denial under § 325(d) in this case. As noted above, all of Petitioner's asserted grounds of unpatentability include Hunt—a reference that was not presented previously to the Office. And, unlike in the Board's previous cases, Hunt is relied on for anticipation, and secondary considerations evidence is not relevant to an anticipation analysis. *See, e.g.*, *Cohesive Techs., Inc. v. Waters Corp.*, 543 F.3d 1351, 1364 (Fed. Cir. 2008) (secondary considerations are not an element of a claim of anticipation).

Moreover, for the reasons explained below with respect to Petitioner's alleged grounds of unpatentability for obviousness, we determine that Hunt—either alone or in combination with Flick '885—provides strong evidence of unpatentability based on the record before us at this stage of the proceeding. *Infra* § IV.C. This evidence may weigh differently against Patent Owner's evidence of secondary considerations than the other prior art weighed in previous cases. "Obviousness is ultimately a legal



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determination, and a strong showing of obviousness may stand even in the face of considerable evidence of secondary considerations." *ZUP, LLC v. Nash Mfg., Inc.*, 896 F.3d 1365, 1374 (Fed. Cir. 2018). Thus, 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, we cannot say the same at this stage of the proceeding based on Hunt and Flick '885.

Finally, this is not a case where Petitioner failed to address known evidence of secondary considerations. *See, e.g.*, *Stryker Corp. v. KFX Medical, LLC*, IPR2019-00817, Paper 10 at 29 (PTAB Sept. 16, 2019) (finding that "Petitioner's failure to address the known evidence of secondary considerations further weighs in favor of denying institution" and collecting decisions).

For these reasons, we find that the first part of the *Advanced Bionics* two-part framework is not met because neither the same nor substantially the same art or arguments were presented previously to the Office. Accordingly, we need not consider the second part, i.e., whether Petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims. *Advanced Bionics*, 8.

*C. Summary*

For the reasons discussed above, we decline to exercise our discretion pursuant to 35 U.S.C. § 325(d) to deny institution of trial.

## IV. PATENTABILITY ANALYSIS

Petitioner contends that the claims of the '278 patent are unpatentable under 35 U.S.C. § 102 as anticipated by Hunt. Pet. 10–45. "To anticipate a claim, a prior art reference must disclose each and every element of the



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claim, either explicitly or inherently." *Adasa Inc. v. Avery Dennison Corp.*, 55 F.4th 900, 910 (Fed. Cir. 2022). "While those elements must be arranged or combined in the same way as in the claim, the reference need not disclose the elements in the very same terms used by the patent." *Id.*; *see also In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009) ("[T]he reference need not satisfy an *ipsissimis verbis* test.").

Petitioner also contends that the claims of the '278 patent are unpatentable under 35 U.S.C. § 103 as obvious over Hunt, either alone or in combination with Flick '885. Pet. 45–83. 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, 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.



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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 information presented, we consider whether the Petition satisfies the threshold requirement for instituting an inter partes review under 35 U.S.C. § 314(a).

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). The Board may authorize an *inter partes* review if we determine that the information presented in the Petition and Patent Owner's Preliminary Response shows that there is a reasonable likelihood that Petitioner will prevail with respect to at least one of the claims challenged in the petition. 35 U.S.C. § 314(a).

*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



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(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. 1002 ¶¶ 54–60). Mr. Miller states his opinion is based on "the context of the '278 patent and the prior art." Ex. 1002 ¶ 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." *Id.*

Patent Owner disagrees with Petitioner's characterization of the level of ordinarily skill in the art, but states that it "will apply the Petitioner's heightened level of skill" at this stage of the proceeding. Prelim. Resp. 10 (citing Ex. 2002 ¶ 27). Patent Owner argues that it "reserves the right to provide its own definition for [an ordinarily skilled artisan] and support for that definition in its §42.120 Response, including expert testimony regarding the appropriate definition along with that Response." *Id.*



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Based on this record, we adopt Petitioner's articulation of the level of ordinarily 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"), which appears to be consistent with the '278 patent and the asserted prior art, and we apply it in our obviousness evaluations below. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (the prior art, itself, can reflect appropriate level of ordinary skill in art).

To the extent Patent Owner maintains during trial that Petitioner's characterization of the level of ordinary skill is excessively high, the parties are encouraged to address whether a person of ordinary skill in the art "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," as Petitioner contends. Pet. 9. We note that Patent Owner's preferred characterization of the level of ordinarily skill includes an artisan having "several years' experience in designing, manufacturing, installing and/or working on vehicle telematics systems." Prelim. Resp. 9–10 (quoting Ex. 2007, 9). It is not clear to us on this record why such an artisan would not have also met Petitioner's further characterization. The parties are encouraged to develop the record further on this issue, and are reminded that the level of ordinary skill may also affect the admissibility of expert testimony. *See Kyocera Senco Indus. Tools Inc. v. Int'l Trade Comm'n*, 22 F.4th 1369, 1376–77 (Fed. Cir. 2022).



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*B. Claim Construction*

Next, we turn to 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 states that "[r]elevant claim constructions are discussed below in relation to the claim elements where they appear," and that "[a]ll other terms should be given their ordinary meaning." Pet. 9–10. Patent Owner contends that "[a]ll terms not specifically construed should be given their ordinary meaning." Prelim. Resp. 10–11.

Having considered the record, we determine 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. We therefore address Petitioner's arguments about printed matter now. *See 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").

Petitioner argues that "enabling data" means *any type of data*, because "enabling data" is printed matter that "imparts no patentable weight." Pet. 38–40 (citing Ex. 1003 ¶¶ 323–325). Specifically, Petitioner argues that if "enabling data" requires a specific type of data, then "the claims would be claiming 'the content of information' in the enabling data," which Petitioner



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argues is improper under the printed matter doctrine. *Id.* at 38 (citing *In re DiStefano*, 808 F.3d 845, 848–851 (Fed. Cir. 2015); *Praxair Distribution*, 890 F.3d 1024, 1032 (Fed. Cir. 2018)). Petitioner also argues that "'enabling data' has no functional relation to a 'substrate'" because "[a]t most claim 1 requires the device be capable of downloading enabling data, without requiring it ever to do so." *Id.* at 39 (citing *DiStefano*, 808 F.3d at 848) (emphasis omitted).

Patent Owner argues that "enabling data" must be given full patentable weight. Prelim. Resp. 24–27. Patent Owner argues that the issue of printed matter has not been previously raised in any previous litigation or reexamination, but even so, the claim language "clearly communicates the content of the data and its effect on the multi-vehicle compatible controller to those having ordinarily skill in the art." *Id.* at 27 (citing Ex. 2002 ¶ 93).

In construing "enabling data," we refer to the written description of the '278 patent. *Phillips*, 415 F.3d at 1315 (the specification is the single best guide to the meaning of a disputed term). The '278 patent describes "enabling data" as data that "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." Ex. 1001, 24:8–13. In *Omega Patents I*, 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*, 12–13 (citing Ex. 1001, 24:5–25:28,



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Figs. 10–13). We see no reason to depart from the Board's previous construction of this term at this stage of the proceeding.

Specifically, we are not persuaded on this record that "enabling data" constitutes non-limiting printed matter. The U.S. Court of Appeals for the Federal Circuit has cautioned that the printed matter doctrine should be "limited . . . to matter claimed for its communicative content." *DiStefano*, 808 F.3d at 849. And here, we do not agree with Petitioner that the "enabling data" described and claimed in the '278 patent is simply communicative content. Petitioner cites to the Court's decisions in *DiStefano* and *Praxair Distribution*,[6] but we think the Court's decision in *In re Lowry*, 32 F.3d 1579 (Fed. Cir. 1994), is more apt.

In *Lowry*, the Court held that the claim limitation "attribute data objects" (ADOs) stored in a computer memory did not constitute printed matter because the ADOs "contain both information used by the application programs and information regarding their physical interrelationships within a memory" and the claims at issue "dictate how application programs manage information." 32 F.3d at 1583. The "enabling data" in this case is similarly used—as the Board previously explained—to "enable[] the recited controller to use a particular vehicle device code from among plural such codes for different vehicles." *Omega Patents I*, 12–13.

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[6] In *Praxair*, cited by Petitioner, the Court held that claimed instructions located on the side of a cylinder of compressed nitric oxide were "printed matter" because they "merely require[d] a medical provider to think about the information claimed." 890 F.3d at 1033. And in *DiStefano*, the Court *reversed* the Board's determination that "web asset origins" constituted printed matter. 808 F.3d at 850–851.



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We are unaware of any controlling case treating computer code or data *that effects a function in a computer program* as printed matter. Indeed, in *Lowry*, the Court admonished the Board for extending the printed matter doctrine "to a new field in this case, which involves information stored in memory." *Id.* at 1583. The Court also held that "[t]he printed matter cases have no factual relevance where the invention as defined by the claims requires that the information be processed not by the mind but by a machine, the computer." *Id.*

Thus, for this Decision, we apply the Board's previous construction of "enabling data" as described above. The parties may further develop the record at trial as to how an ordinarily skilled artisan, at the time of the invention, would have interpreted "enabling data" in light of the written description of the '278 patent, and more clearly explain any relevant differences between their respective interpretations. We note, however, that absent controlling precedent, we are disinclined to view computer code or data through the lens of the printed matter doctrine. *See DiStefano*, 808 F.3d at 850–851 (holding that the Board erred in the threshold step of the printed matter test by characterizing the claim limitation "selecting a first element from a database including web assets authored by third party authors and web assets provided to the user interface or outside the user interface by the user" as printed matter).

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



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795, 803 (Fed. Cir. 1999))). Any final written decision entered in this case may include a final claim construction based on the full trial record that differs from this preliminary construction, or from any discussion of claim scope provided in our analysis below.

*C. Alleged Grounds of Unpatentability*

We now consider whether the Petition satisfies the threshold requirement for instituting an *inter partes* review under 35 U.S.C. § 314(a) by addressing each of Petitioner's asserted grounds of unpatentability, below.

*1. Alleged anticipation by Hunt*

Petitioner argues that claims 1, 4–6, 8, 11, 12, 18, 19, and 21 of the '278 patent are unpatentable under 35 U.S.C. § 102(b) as anticipated by Hunt. Pet. 18–48. At this stage of the proceeding, Patent Owner disputes Petitioner's contentions only with respect to "a downloading interface for permitting downloading of enabling data related to the at least one corresponding vehicle device code for use by the multi-vehicle compatible controller." Prelim. Resp. 12–27. Having considered the arguments and evidence before us, we find that the record establishes a reasonable likelihood that Petitioner would prevail on this asserted ground of unpatentability.

*a) The currently undisputed limitations*

Taking claim 1 as illustrative, Petitioner provides a limitation-by-limitation analysis alleging that Hunt teaches each and every limitation and therefore anticipates claim 1. Pet. 13–41. We have reviewed Petitioner's contentions and supporting evidence regarding the currently undisputed



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limitations of claim 1, and are satisfied that the record establishes sufficiently for institution that Hunt teaches these limitations.

As to the preamble[7] of claim 1 (i.e., "[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"), we agree with Petitioner on this record that Hunt's wireless appliance satisfies the language of the preamble. *See id.* at 13 (citing Ex. 1023, code (57), claim 1; Ex. 1003 ¶¶ 214–216). And, although Hunt does not explicitly use the term "vehicle data bus," we agree with Petitioner on this record that an ordinarily skilled artisan would understand that "a monitorable vehicle" having an "on-board diagnostic system[]" would necessarily have an internal communications system—i.e., a vehicle data bus. *Id.* (citing Ex. 1023, 3:62–65, 5:55–65, Fig. 5; Ex. 1003 ¶¶ 215–216; Ex. 1052, 13; Ex. 1071, 7, Ex. 1072, 4–5, 8, 19). Indeed, Patent Owner does not currently dispute that Hunt's "monitorable vehicle" would include a vehicle data bus.

As to limitations 1[a] (i.e., "a vehicle position determining device") and 1[b] (i.e., a wireless communications device), we agree with Petitioner on this record that Hunt's GPS module and 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 15–17 (for limitation 1[b], citing Ex. 1023, code (57), 2:42–48, 3:34–49,

[7] Neither party takes a position on whether the preambles to the claims are limiting. On this record, and at this stage of the proceeding, we accept Petitioner's showing that the preambles are taught by the prior art, without deciding whether the preambles are limiting.



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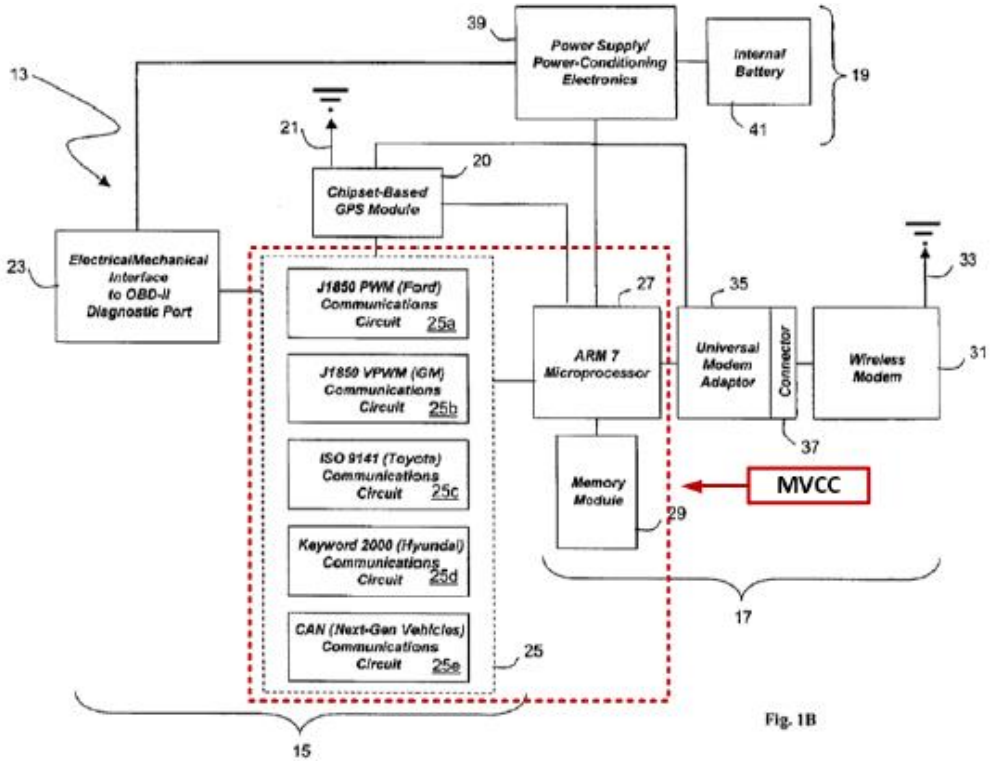
6:35–65, 7:34–38, 11:5–7, 11:34–40, Figs. 1A, 1B, & 2, claim 1; Ex. 1003 ¶¶ 221–223).

We now turn to limitation 1[c] (i.e., a multi-vehicle compatible controller for cooperating with said vehicle position determining device and said wireless communications device to send vehicle position information"). For this limitation, Petitioner relies on an annotated version of Hunt's Figure 1B, which we reproduce below:




Pet. 19. Figure 1B depicts Hunt's wireless appliance 13. In its annotated version of Figure 1B, Petitioner draws a red box around Hunt's microprocessor 27, vehicle-communication circuit 25, and memory 29, and contends that these components constitute the claimed MVCC. *Id.* at 18–19 (citing Ex. 1023, Fig. 1B; Ex. 1003 ¶¶ 227–231). We agree with Petitioner's contentions on this record, and further note that there is currently no dispute that Hunt's wireless appliance is compatible with multiple vehicles using



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different vehicle-communications protocols. Ex. 1023, 9:13–17. Indeed, Patent Owner concedes that Hunt "discloses the claimed multi-vehicle compatible controller." Prelim. Resp. 12 (citing Pet. 19–20). We also agree with Petitioner on this record that Hunt's MVCC "cooperate[s]" with GPS and wireless transmitter to send vehicle position information. Pet. 22–23 (citing Ex. 1023, 6:18–44, Figs. 1A, 1B; Ex. 1003 ¶¶ 247–249). Specifically, Hunt's GPS module generates location-based data, which is processed by the microprocessor and wirelessly transmitted. Ex. 1023, 6:18–44.

Turning to limitation 1[d] (i.e., "said multi-vehicle compatible controller to be coupled to the vehicle data bus for communication thereover with at least one vehicle device using at least one corresponding vehicle device code from among a plurality thereof for different vehicles"), Petitioner argues[8] that Hunt meets this limitation because Hunt's MVCC: (1) is coupled to a vehicle bus for communication thereover with at least one vehicle device, *see* Pet. 25–27 (citing, *e.g.*, Ex. 1023, 2:42–57, 5:14–17, 5:55–6:34, 8:14–65, Figs. 1B & 5, claims 13 & 30; Ex. 1003 ¶¶ 255–257) and (2) uses a vehicle device code from among a plurality for different vehicles, *see id.* at 27–31 (citing, *e.g.*, Ex. 1023, 9:3–8; 1:39–46, 2:42–57,

[8] Alternatively, Petitioner argues that Hunt meets limitation 1[d] because Hunt's MVCC is coupled to a vehicle bus for communication thereover and the remaining language of limitation 1[d]—relating to a "vehicle device code"—is not limiting under the printed matter doctrine. Pet. 23–24. We quickly dispose of Petitioner's alternative argument by reiterating that we are not persuaded that the printed matter doctrine applies to the facts of this case. We do not consider "vehicle device code" to be printed matter for the same reasons that we do not consider "enabling data" to be printed matter. *Supra* § IV.B.



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5:8–19, Figs. 1B & 5; Ex. 1003 ¶¶ 262–263), *or* uses different device codes on different vehicles, *see id.* at 32–34 (citing, *e.g.*, Ex. 1023, 2:42–57, 5:61–65, 8:14–65, Figs. 3 & 5, claim 19; Ex. 1003 ¶ 300).

We agree with Petitioner on this record that Hunt's disclosure satisfies limitation 1[d]. Hunt's MVCC includes modules 25a–e for managing different vehicle-communication protocols—for example, protocols for vehicles manufactured by Ford, General Motors, Toyota, etc. Ex. 1023, 2:42–57, 5:61–65, 8:14–65, Figs. 3 & 5, claim 19. After the host vehicle's vehicle-communication protocol is determined, the vehicle-communication circuit "selects one of the five modules 25a–e to communicate with the host vehicle." Ex. 1023, 9:18–27. This communication may be established for the vehicle-communication circuit to receive diagnostic data from the vehicle, which is subsequently passed through to the microprocessor for data analysis. *Id.* at 6:9–12. As an example, Hunt describes receiving diagnostic status data from a vehicle's engine control unit through the electrical/mechanical interface to the on-board diagnostic II (OBD-II) diagnostic port (providing a "vehicle bus"). *Id.* at 7:20–26. Thus, we agree with Petitioner on this record that Hunt's MVCC is "coupled to the vehicle data bus" (e.g., using the OBD-II port for a connection to the vehicle bus) "for communication with at least one vehicle device" (e.g., the vehicle's engine control unit) and "us[es] at least one corresponding vehicle device code from among a plurality thereof for different vehicles" (e.g., using one of five modules 25a–e), as claimed. *See* Pet. 25–27, 32–34.

*b) Limitation 1[e]*

We now turn to the disputed limitation of claim 1—limitation 1[e]. Limitation 1[e] recites "a downloading interface for permitting downloading



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of enabling data related to the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller." Ex. 1001, 26:12–15. Petitioner contends that Hunt discloses this limitation because its MVCC "runs firmware that identifies host vehicle communication protocols and controls communication with vehicle devices." Pet. 35 (citing Ex. 1023, 2:66–3:3; Ex. 1003 ¶ 308). And Petitioner contends that the firmware is loaded wirelessly onto Hunt's MVCC via a "downloading interface." *Id.* at 35–36 (citing Ex. 1003 ¶ 310). In support of this contention, Petitioner relies on another annotated version of Hunt's Figure 1B, which we reproduce below:

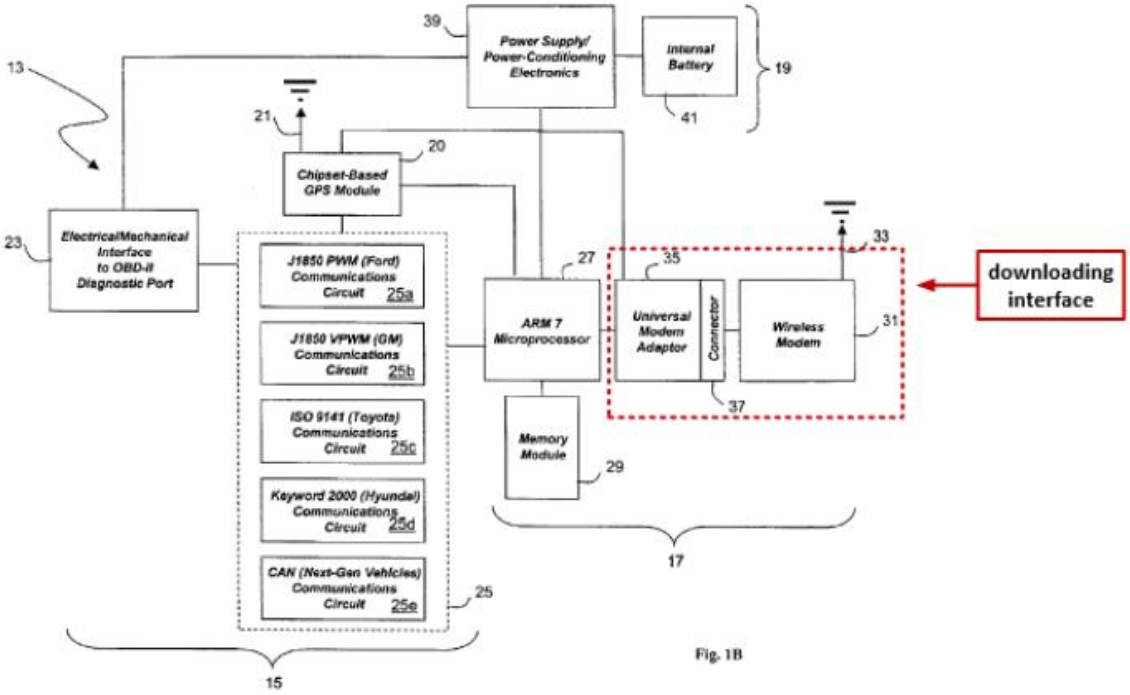

Fig. 1B

Pet. 37. In this annotated version of Figure 1B, Petitioner draws a red box around Hunt's universal modem adaptor 35 and wireless modem 31, and



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argues that these components constitute the claimed "downloading interface." *Id.* at 37 (citing Ex. 1023, 6:50–65; Ex. 1003 ¶ 321).

Petitioner argues that "Hunt's MVCC can be implemented 'as a firmware program loaded into non-volatile storage, or a software program loaded from or into a data storage medium as machine-readable code.'" *Id.* at 35 (quoting Ex. 1023, 10:46–54; citing Ex. 1003 ¶ 309). Petitioner also argues that Hunt's computer system "may be programmed when 'manufactured or via a computer-readable medium at a later date.'" *Id.* (quoting Ex. 1023, 11:5–18; citing Ex. 1003 ¶ 310) (emphasis omitted). Taking these two statements together, Petitioner argues that "[t]ransferring firmware and/or software onto the MVCC 'at a later date' constitutes downloading data," and an ordinarily skilled artisan would have understood that "this downloading occurs via a downloading interface on the MVCC." *Id.* at 35–36 (citing Ex. 1003 ¶ 311).

Petitioner argues that the type of data downloaded is irrelevant because "enabling data" is printed matter and imparts no patentable weight. Pet. 38–40. But even if "enabling data" is limiting, Petitioner argues, downloading firmware onto Hunt's microprocessor satisfies the language of limitation 1[e]. Pet. 40–41. Specifically, Petitioner argues that even if limitation 1[e] requires downloading a particular type of data (i.e., "enabling data"), then "Hunt still meets it because Hunt describes updating the firmware on the MVCC's microprocessor 27, and that firmware identifies the host vehicle communication protocol and processes device codes read from a vehicle device." *Id.* at 40 (citing Ex. 1023, 2:66–3:3, 6:9–12, 6:18–25; Ex. 1003 ¶¶ 211, 308–309, 327).



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Patent Owner argues that Hunt fails to disclose the claimed downloading interface because Hunt's vehicle-communication circuit is an ASIC or other type of transistor or conventional circuit that "cannot be changed via a downloading interface." Prelim. Resp. 12 (citing Ex. 1023, 9:18–55, 12:1–17). Relying on Mr. McAlexander's declaration testimony, Patent Owner argues that an ASIC is an integrated circuit chip that is custom built and programmed at the time of manufacture for a specific—rather than general—use. *Id.* at 13 (citing Ex. 2002 ¶ 56). Patent Owner argues that, because the communication protocols of the ASIC are hardwired and "cannot be changed once the ASIC is manufactured," an ordinarily skilled artisan would understand that Hunt fails to teach a "downloading interface for permitting downloading of enabling data" as claimed in limitation 1[e]. Patent Owner argues that downloading onto Hunt's microprocessor is not sufficient, because Hunt's microprocessor merely performs basic computer functionality, e.g., determining the communication protocol of the host vehicle, and "does not provide individual support for the communication protocols, which instead is done by the ASIC-based communication modules 25a–25e." *Id.* at 14 (citing Ex. 1023, 8:46–9:27, Figs. 1A, 1B; Ex. 2002 ¶ 61).

We perceive the dispute between the parties as turning on the meaning of "enabling data" as recited in limitation 1[e] and whether the "enabling data" must be downloaded to Hunt's vehicle-communication circuit, or whether downloading "enabling data" to Hunt's microprocessor satisfies the language of limitation 1[e]. To begin, we reiterate that we are not persuaded on this record and at this stage of the proceeding that "enabling data" constitutes non-limiting printed matter. As explained above, we construe



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"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." *Supra* § IV.B.

Turing to Petitioner's alternative argument, however, we agree with Petitioner on this record and for this Decision that Hunt's teaching of downloading firmware on the MVCC's microprocessor satisfies the "enabling data" limitation of claim 1. Specifically, Hunt teaches that the microprocessor (which we find is an element of the MVCC) "may run firmware that determines the vehicle-communication protocol of the host vehicle." Ex. 1023, 2:66–27.[9] The microprocessor does this 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, the microprocessor then *communicates the specific protocol* to the vehicle-communication circuit. *Id.* at 9:18–20. And the vehicle-communication circuit then selects one of the five modules 25a-e to communicate with the host vehicle. *Id.* at 9:21–27. Although the microprocessor is not providing "the code itself to the controller," it is "otherwise enabl[ing] the controller to select or generate the code"—as we have construed "enabling data"—by communicating the vehicle's specific protocol to Hunt's vehicle-communication circuit. And, in

[9] Petitioner also argues that "process[ing] device codes read from a vehicle device" constitutes "enabling data. *See* Pet. 40 (citing Ex. 1023, 6:9–12, 6:18–25). We do not agree on this record. Reading diagnostics off the vehicle data bus does not enable Hunt's controller to use a particular device code and thus is not "enabling data."



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this way, Hunt's wireless appliance is compatible with multiple vehicles using different vehicle-communications protocols. *Id.* at 9:13–17.

Patent Owner's argument that Hunt fails to disclose limitation 1[e] is not persuasive on this record. Although we tend to agree with Patent Owner that Hunt's vehicle-communication circuit is hardwired and not reprogrammable (or updatable) through download, claim 1 does not require the controller to be updatable with, e.g. new vehicle device codes. Instead, limitation 1[e] broadly recites downloading "enabling data *related to* the at least one corresponding vehicle device code for use by said multi-vehicle compatible controller." In our view, data that otherwise enables the controller to select or generate the code is enabling data "related to" the vehicle device codes. Indeed, the '278 patent describes "enabling data" as data that may be "an instruction to select a code or codes *from among those already stored*." Ex. 1001, 24:8–13 (emphasis added).

*c) Claims 4–6, 8, 11, 12, 18, 19, and 21*

We have reviewed Petitioner's contentions that Hunt teaches the limitations recited in claims 1, 4–6, 8, 11, 12, 18, 19, and 21. Pet. 41–45. Patent Owner's arguments about dependent claims 4–6, 8, 11, and 12, and independent claim 18 and dependent claims 19 and 21, generally do not go beyond the "downloading interface" limitation that those claims have in common with claim 1. *See generally* Prelim. Resp. 28–31. On this record and for institution, we find that Petitioner has shown sufficiently that Hunt teaches the limitations of these claims. For example, as to claim 12 (reciting "comprising a housing containing said vehicle position determining device, said wireless communications device, said multi-vehicle compatible controller, Hunt discloses "a single housing that houses the GPS antenna, the



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radio antenna, and all the other components in the wireless appliance." Ex. 1023, 3:4–9.

*d) Summary*

Accordingly, for the reasons set forth above and based on the totality of the evidence currently in the record, we are persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing in its challenge to claims 1, 4–6, 8, 11, 12, 18, 19, and 21 of the '278 patent as anticipated by Hunt.

*2. Alleged obviousness over Hunt*

Petitioner contends that claims 1, 4–6, 8, 11, 12, 18, 19, and 21 of the '278 patent are unpatentable under 35 U.S.C. § 103 as obvious over Hunt. Pet. 45–48. Briefly, Petitioner contends that this ground of unpatentability "relies on three obvious implementations of Hunt that provide alternative bases for meeting" claim limitations 1[d] and 1[e]. *Id.* at 45. At this stage of the proceeding, Patent Owner does not contest Petitioner's contentions with respect to limitation 1[d]. *See generally* Prelim. Resp. And, as explained above, we find that Hunt expressly teaches this limitation. *Supra* § IV.C.1.a.

Turning to limitation 1[e]—which is contested—Petitioner argues that "[t]o the extent Hunt's disclosure of programming the system 'later' than manufacture is treated as not expressly disclosing programming the firmware, updating Hunt's firmware through its wireless modem and/or wired connection would have been the conventional and obvious way to implement Hunt's post-manufacture programming with a reasonable expectation of success." Pet. 48 (quoting Ex. 1023, 11:5–18; citing Ex. 1003 ¶¶ 355–356) (emphasis omitted).

In response, Patent Owner reiterates its arguments that Hunt's firmware merely updates the basic functions of the microprocessor, and



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cannot update Hunt's ASIC, which is hardwired upon manufacture. Prelim. Resp. 32–33 (citing Ex. 1023, 6:35-7:61, 8:46–9:45, Figs. 1a, 1b, & 5; Ex. 2002 ¶¶ 110–114). Patent Owner further argues that "the only way [an ordinarily skilled artisan] could possibly make the leap proposed by Petitioners would involve the improper use of hindsight based upon Patent Owner's own specification." *Id.* at 33–34 (citing Ex. 2002 ¶ 116). According to Patent Owner, "[w]ithout that hindsight [an ordinarily skilled artisan] would conclude that the ASIC was not programmable post manufacturing and thus, a downloading interface would be impractical and inoperable and to try to do so would add unnecessary cost." *Id.*

Upon consideration of the parties' respective arguments and evidence, we find that Petitioner has the better position. As explained above, although we tend to agree with Patent Owner that Hunt's vehicle-communication circuit is hardwired as an ASIC and is not reprogrammable (e.g., updatable with new vehicle device codes) through download, we do not read limitation 1[e] so narrowly as to require that the claimed MVCC be updatable as Patent Owner suggests. *Supra* § IV.C.1.b. But, even if we were to read limitation 1[e] narrowly, we agree with Petitioner, on this record and for this Decision, that it would have been routine for an ordinarily skilled artisan to utilize a programmable computer system for Hunt's vehicle-communication circuit and update it through its downloading interface (i.e., universal modem adaptor and wireless modem). *See, e.g.*, Pet. 35–36.

As Hunt itself explains, it would be "apparent to one of ordinarily skill in the art" that some of the disclosed embodiments could be implemented "in many different embodiments of software, firmware, and hardware." Ex. 1023, 10:55–59. Hunt further explains that it would be



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within a skilled artisan's ordinary skill to "design software and control hardware to implement the embodiments of the present invention based on the description herein with only a reasonable effort and without undue experimentation." *Id.* at 10:64–11:3. Thus, we agree with Petitioner, on this record and for this Decision, that an ordinarily skilled artisan was well aware of techniques for updating programming via a downloading interface, and a skilled artisan wishing to utilize a reprogrammable vehicle-communication circuit (e.g., to add new communication modules "later" or post-manufacture) would have been motivated to update that vehicle-communication circuit via Hunt's downloading interface. Pet. 48; Ex. 1003 ¶¶ 355-356.

We are not persuaded by Patent Owner's arguments to the contrary at this stage of the proceeding. As to Patent Owner's argument that "Petitioners are attempting to use boilerplate to fill in the gaps to tie together disjointed pieces of Hunt," we find no fault with Petitioner's reliance on Hunt's disclosure for what it says. Indeed, we find that Hunt's "boilerplate" provides evidence that an ordinarily skilled artisan would have recognized that there were many predictable and routine variations for implementing Hunt's invention. And "[i]f a person of ordinary skill in the art can implement a predictable variation, and would see the benefit of doing so, § 103 likely bars its patentability." *KSR*, 550 U.S. at 417; *see also, e.g.*, *Boston Sci. Scimed. Inc. v. Cordis Corp.*, 554 F.3d 982, 991 (Fed. Cir. 2009). ("Combining two embodiments disclosed adjacent to each other in a prior art patent does not require a leap of inventiveness.").

We address Patent Owner's arguments about secondary considerations below. *Infra* § IV.C.3.c. For the reasons set forth above and



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below with respect to secondary considerations, and based on the totality of the evidence currently in the record, we find that the record establishes a reasonable likelihood that Petitioner would prevail on this asserted ground of unpatentability.

*3. Asserted 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 Flick '885 in view of Hunt. Pet. 48–75. Briefly, Petitioner contends that "Flick-885 discloses everything in the challenged claims except GPS (vehicle position determining device) and a single housing." *Id.* at 49 (citing Ex. 1003 ¶¶ 359–360). Petitioner contends that it would have been obvious to "modify 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 are taught by Hunt." *Id.* (citing Ex. 1003 ¶ 362). At this stage of the proceeding, Patent Owner does not contest that the combination of Flick '885 and Hunt teaches or suggests each and every limitation of the claims. *See generally* Prelim. Resp. 36–50. Patent Owner argues that an ordinarily skilled artisan would not have been motivated to combine the teachings of Flick '885 and Hunt, *id.* at 41–42, and that Petitioner's proposed combination fails to consider Patent Owner's compelling evidence of secondary considerations, *id.* at 43–45.

Having considered the arguments and evidence before us, we find that the record establishes a reasonable likelihood that Petitioner would prevail on this asserted ground of unpatentability.



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*a) The claim limitations*

Starting with the claim limitations, Petitioner contends, and Patent Owner does not dispute on this record, that Flick '885 teaches each and every limitation of claims except for limitation 1[a] (i.e., "a vehicle position determining device") and the limitation of dependent claim 12 (i.e., "a housing containing" the components of the MVCC).

Taking claim 1 as illustrative, we have reviewed Petitioner's contentions and supporting evidence regarding these limitations, and agree with and adopt Petitioner's detailed mapping of: the preamble, *see* Pet. 53–54 (citing Ex. 1024, code (57), Fig. 1; Ex. 1003 ¶ 378); limitation 1[a], *see id.* at 54–55 (citing Ex. 1023, code (57), 1:39–47, 2:31, 3:26–27, 5:7, 5:43–45, Figs. 1A, 1B, & 2, claim 1; Ex. 1003 ¶ 380); limitation 1[b], *see id.* at 55–56 (citing Ex. 1024, code (57), 5:16-35, 5:45–50, Figs. 1, 2, 4; Ex. 1003 ¶¶ 381–382); limitation 1[c], *see id.* at 56–60 (citing Ex. 1024, code (57), 3:5–18, 5:16–24, 6:53–61, 7:12–8:11, 8:34–40, 8:64–9:20, 10:18–30, Figs. 1, 2, & 4, claim 1; Ex. 1023, 6:18–44, Figs. 1A & 1B; Ex. 1003 ¶¶ 384–394); limitation 1[d], *see id.* at 60–63 (citing Ex. 1024, code (57), 2:66–3:26, 3:34–36, 3:63–4:5, 4:9–23, 4:35–37, 5:5–15, 6:32–58, 7:24–42, 7:60–10:6, 10:18–21, Figs. 1, 2, & 4–8, claims 1–8; Ex. 1003 ¶¶ 397–406)[10]; and limitation 1[e], *see id.* at 64–68 (citing Ex. 1025,[11] code (57), 7:31–56,

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[10] We reiterate, however, that we are not persuaded on this record that the language of limitation 1[d] contains non-limiting printed matter. *Supra* § IV.C.1.a (n.8).

[11] Exhibit 1025 is U.S. Patent No. 6,011,460, which was issued to Flick on January 4, 2000. Ex. 1025 ("Flick '460"). Flick '885 claims priority to Flick '460 through a series of continuation-in-part and continuation applications. *See* Ex. 1024, 1:5–13 (providing listing of related applications). Flick '885 incorporates by reference the entire disclosure of



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Fig. 6A, claims 1–2; Ex. 1024, 7:24–42, 7:50–8:34, 10:7–17; Ex. 1003 ¶¶ 411–421).

Turning to dependent claim 12, we have reviewed Petitioner's contentions and supporting evidence, and agree with and adopt Petitioner's detailed mapping of the additional limitation of this claim (i.e., "a housing containing" the components of the MVCC). *See* Pet. 51–52 (citing Ex. 1023, 4:28–37, claim 1; Ex. 1003 ¶ 368), 73 (citing Ex. 1003 ¶¶ 339–340, 447).

Finally, we have reviewed Petitioner's contentions as to the remaining claims 2–11 and 13–22, and are satisfied on this record and for institution that the combination of Flick '885 (incorporating Flick '460) and Hunt teaches the currently undisputed limitations of these claims.

*b) Motivation to combine/reasonable expectation of success*

Even "[i]f all elements of the claims are found in a combination of prior art references," "the factfinder should further consider whether a person of ordinary skill in the art would [have been] motivated to combine those references, and whether in making that combination, a person of ordinary skill would have [had] a reasonable expectation of success." *Merck & Cie v. Gnosis S.P.A.*, 808 F.3d 829, 833 (Fed. Cir. 2015). The "motivation to combine" and "reasonable expectation of success" factors are

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Flick '460. Ex. 1024, 10:6–17. Thus, the teachings of Flick '460 are part of the teachings of Flick '885. *See* Pet. 64. *See Arbutus Biopharma Corp. v. ModernaTX, Inc.*, 65 F.4th 656, 662–63 (Fed. Cir. 2023) ("When a reference or material from various documents is incorporated, they are effectively part of the host document as if they were explicitly contained therein." (quotation and alteration omitted)).



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subsidiary requirements for obviousness subsumed within the *Graham* factors. *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1361 (Fed. Cir. 2007).

As noted above, Petitioner relies primarily on Flick '885 (incorporating Flick '460) for teaching most limitations of claim 1, but additionally relies on Hunt for teaching limitation 1[a] and dependent claim 12. Pet. 39. We address each individually below.

As to limitation 1[a], Petitioner argues an ordinarily skilled artisan would have been motivated to combine Hunt's location services to Flick '885's multi-vehicle compatible control system with a reasonable expectation of success. *Id.* at 49–51, 52–53. Petitioner argues that both Flick '885 and Hunt relate to vehicle monitoring systems, and that Hunt "explains that there are 'many advantages' to adding GPS and location services to such systems." *Id.* at 50 (citing Ex. 1023, 4:18-22 2:35–41; Ex. 1003 ¶ 364). Petitioner argues that an ordinarily skilled artisan would have been motivated to add location services such as GPS to Flick '885's multi-vehicle compatible control system to achieve these advantages, including the ability to receive roadside assistance, alerts, vehicle recovery, and remote diagnostics. *Id.* at 50–51 (citing Ex. 1023, 2:35–41, 4:18–22; Ex. 1003 ¶ 366). Petitioner also argues that the ordinarily skilled artisan would have had a reasonable expectation of success in the combination because GPS systems were well known for use in vehicle location services (as evidenced by Hunt) and, thus, adding GPS to Flick '885's multi-vehicle compatible control system would have been "no more than the predictable use of prior art elements according to their established functions." *Id.* at 51, 53 (quoting *KSR*, 550 U.S. at 417; citing Ex. 1003 ¶¶ 367, 374).



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As to dependent claim 12, Petitioner argues an ordinarily skilled artisan would have been motivated to provide Flick '885's multi-vehicle compatible control system incorporated with Hunt's GPS in a "single housing." *Id.* at 51–52 (citing Ex. 1023, 4:28–37, claim 1; Ex. 1003 ¶ 368). Petitioner argues that an ordinarily skilled artisan would have understood that providing a single housing (i.e., 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.'" *Id.* at 52 (quoting Ex. 1023, 4:34–38; Ex. 1003 ¶ 369). And Petitioner argues that an ordinarily skilled artisan would have a reasonable expectation of success because the combination represents "no more than the predictable use of prior art elements according to their established functions." *Id.* at 52, 53 (quoting *KSR*, 550 U.S. at 417; citing Ex. 1003 ¶¶ 370, 376).

In response, Patent Owner argues that an ordinarily skilled artisan would not have combined the teachings of Flick '885 with Hunt. Prelim. Resp. 41–42 (citing, *e.g.*, Ex. 2002 ¶¶ 140–146). Patent Owner argues that Flick '885 "does not disclose anything about vehicle position determining," while Hunt "does not address ongoing compatibility with different vehicles." *Id.* at 41 (citing Ex. 1024, 1:21–37; Ex. 1023, 9:18–45; Ex. 2002 ¶¶ 141–142). Patent Owner also argues that Petitioner's stated motivation to combine Flick '885 and Hunt is conclusory and insufficient, and represents an improper use of hindsight. *Id.* at 41–42 (citing Ex. 2002 ¶¶ 143–146).

Although we have considered Patent Owner's arguments carefully, we determine that Petitioner has sufficiently shown on this record and for institution that an ordinarily skilled artisan would have had a reason to



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combine the teachings of Flick '885 and Hunt to achieve the claimed invention with a reasonable expectation of success.

Specifically, taking claim 1 as illustrative, Flick '885 teaches most of the limitations of this claim except for a vehicle position determining device (e.g., GPS). *Supra* § IV.C.3.a. But the evidence of record shows that the use of GPS was well known in the art for use in vehicle monitoring systems before the priority data of the '278 patent. Hunt, for example, employs a GPS module in a wireless appliance that, like the control system disclosed in Flick '885, can communicate information about a vehicle to a receiver. *See* Ex. 1023, 6:18–26 (stating that the wireless appliance can provide information describing "the host vehicle's speed, mass air flow, . . . odometer reading, fuel efficiency, and emission status"); Ex. 1024, 5:16–29 (describing use of the control system for communicating vehicle information such as security alerts to a remote receiver); *see also* Pet. 49–51. Patent Owner's arguments that an ordinarily skilled artisan would not have combined Flick '885 and Hunt because each reference is allegedly directed to different subject matter is therefore not persuasive on this record. *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) ("Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references.").

Moreover, we agree with Petitioner on this record that Hunt expressly teaches a skilled artisan that providing a combination of GPS location services and vehicle diagnostic data provides "many advantages," Ex. 1023, 4:12, and thus provides a reason to combine the teachings of Hunt and Flick '885. Hunt expressly teaches that vehicle-location data and vehicle-



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diagnostic data "are complementary and, when analyzed together, can improve conventional services such as roadside assistance, vehicle theft notification and recovery, and remote diagnostics." *Id.* at 4:18–23. Thus, we are also not persuaded on this record by Patent Owner's argument that Petitioner's rationale to combine is "nothing more than a conclusion that [an ordinarily skilled artisan] would turn to Hunt simply to make Flick ['885] better." Prelim. Resp. 42 (citing Ex. 2002 ¶ 144). And, in any event, the Federal Circuit explained even pre-*KSR* that a motivation to combine may be found where the "combination of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient." *DyStar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 1365 (Fed. Cir. 2006).

*c) Secondary considerations*

Finally, Patent Owner argues that Petitioner's arguments for obviousness "must also fail in light of Patent Owner's compelling evidence of secondary considerations of non-obviousness." Prelim. Resp. 39 (citing Ex. 2002 ¶ 135); *see also id.* at 35–36 (citing Ex. 2002 ¶¶ 122–124). Evidence of objective indicia of nonobviousness must be considered in every case before reaching a conclusion on obviousness *vel non*. *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1328 (Fed. Cir. 2016).

In support of its arguments, Patent Owner points to the Board's decisions in *Omega Patents I* and *Omega Patents II*, and argues 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



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invention. *Id.* at 35–36 (citing Ex. 1012; Ex. 1017; Ex. 2002 ¶¶ 122–124); *id.* at 43–45 (citing Ex. 1017; Ex. 2002 ¶¶ 147–149). Patent Owner also points to "testimony of the opposing party [in a district-court litigation] admitting to copying and limited value of product without the claimed invention." *Id.* at 50 (citing Ex. 2004, 26:11–20; Ex. 2005, 45:3–19, 46:25–47:19; Ex. 2006, 64:15–24, 102:16–103:13, 155:4–13) (emphasis omitted); *see also id.* at 43 (also citing Exhibits 2004–2006).

Petitioner argues that Patent Owner's secondary considerations do not provide a basis to deny institution of *inter partes* review. Pet. 75–83. Petitioner acknowledges that the Board previously credited Patent Owner's secondary considerations in the reexamination proceedings, but argues that "the Board should grant Petitioners the opportunity to cross-examine witnesses and present its own rebuttal evidence and argument" because the Petition relies on different references than the reexamination proceedings, the Petition presents a strong case of obviousness that cannot be overcome by secondary considerations, and none of Patent Owner's secondary considerations have been "tested . . . in an adversarial proceeding." *Id.* at 76–77.

We agree with Petitioner that it would inappropriate at this stage of the proceeding to deny institution based on Patent Owner's evidence of secondary considerations. Secondary considerations are highly fact-intensive and implicate genuine issues of fact more appropriately resolved on a fully developed record. At this stage, Patent Owner does not appear to have fully supplied its secondary considerations evidence to the Board. Although Patent Owner repeatedly cites to the Board's decisions in *Omega Patents I* and *Omega Patents II*, none of the underlying evidence that the



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Board relied on in those proceedings appears to have been submitted in this proceeding for our review. Moreover, Petitioner has not had an opportunity to present its own evidence and argument to rebut Patent Owner's evidence at trial, including a full opportunity to litigate the information included in Exhibits 2004–2006.

In addition, 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*, 829 F.3d at 1328 (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 *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. *Supra* § III.B. We have not had the opportunity here to consider the strength of Patent Owner's evidence of secondary considerations side-by-side with Petitioner's evidence of obviousness based on Hunt alone or in combination with Flick '885, especially given that much of Patent Owner's evidence does not appear yet to be of record. We will consider the complete secondary-considerations record developed during trial as part of our analysis in the final written decision, where we make the ultimate determination on obviousness or non-obviousness.

*d) Summary*

Accordingly, for the reasons set forth above and based on the totality of the evidence currently in the record, we are persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing in its challenge to claims



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1–22 of the ’278 patent as unpatentable for obviousness over Flick ’885 and Hunt.

## V. CONCLUSION

After considering the arguments presented in the parties’ respective papers and the evidence of record, we determine that Petitioner has demonstrated at least a reasonable likelihood of success in proving that at least one claim of the ’278 patent is unpatentable. *See* CONSOL. OFFICE PATENT TRIAL PRACTICE GUIDE, 53 (2019) (“The ‘reasonable likelihood’ standard is a somewhat flexible standard that allows the Board room to exercise judgment.”).[12] Thus, we institute an *inter partes* review of all challenged claims (i.e., claims 1–22) on all grounds set forth in the Petition. Our determinations at this stage of the proceeding are based on the evidentiary record currently before us.

This decision to institute trial is not a final decision as to patentability of any claim for which we have instituted an *inter partes* review. *See TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016) (noting that “there is a significant difference between a petitioner’s burden to establish a ‘reasonable likelihood of success’ at institution, and actually proving invalidity by a preponderance of the evidence at trial”). We will base any final decision on the full record developed during trial.

[12] *Available at*: https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf?MURL=TrialPracticeGuideConsolidated.



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## VI. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is instituted for claims 1–22 of the '278 patent on the unpatentability grounds asserted in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial, which commences on the entry date of this decision.



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