

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

ZOMM, LLC,
Patent Owner.

IPR2019-00277
Patent 8,351,895 B2

Before JOSIAH C. COCKS, SHARON FENICK, and JASON W. MELVIN,
Administrative Patent Judges.

FENICK, *Administrative Patent Judge.*

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

We have jurisdiction to conduct this *inter partes* review under 35 U.S.C. § 6(b)(4). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons discussed herein, we determine that Apple, Inc. (“Petitioner”) has shown, by a preponderance of

the evidence, that claims 7–11, 13–15, and 21–28 of U.S. Patent No. 8,351,895 B2 (Ex. 1001, “the ’895 patent”) are unpatentable.

I. BACKGROUND

A. *Procedural History*

Petitioner filed a Petition (Paper 2, “Pet.”), requesting an *inter partes* review of claims 7–11, 13–15, and 21–28 (“the challenged claims”) of the ’895 patent (“the challenged claims”). Zomm, LLC (“Patent Owner”) did not file a preliminary response. We determined that the information presented in the Petition established that there was a reasonable likelihood that Petitioner would prevail with respect to its unpatentability challenges. Pursuant to 35 U.S.C. § 314, we instituted this proceeding on May 10, 2019, as to all challenged claims and all grounds of unpatentability. Paper 7 (“Dec. on Inst.”).

Patent Owner filed a Patent Owner Response on August 3, 2019. Paper 11 (“PO Resp.”). Petitioner filed a Reply (Paper 13, “Pet. Reply”) on October 25, 2019. Patent Owner filed, on December 20, 2019, a Sur-Reply. Paper 15 (“PO Sur-Reply”).

An Oral Hearing on this matter and a related case (IPR2019-00275) was held on March 6, 2020. The Hearing Transcript (“Tr.”) is included in the record as Paper 23.

B. *Real Parties in Interest*

Petitioner identifies itself as the real party in interest. Pet. 2. Patent Owner identifies itself as the real party in interest. Paper 5, 1.

C. *Related Proceedings*

Petitioner and Patent Owner each indicate that the ’895 patent is at issue in: *Zomm, LLC v. Apple Inc.*, Case No. 4:18-cv-04969-HSG (N.D. Cal. 2018). Pet. 2; Paper 5, 1. The ’895 patent is also the subject of the

petition in the related case, IPR2019-00275, filed by Petitioner concurrently with the instant Petition. We instituted *inter partes* review in that case and issue a final written decision in that case contemporaneously with this Decision. *Apple Inc. v. Zomm, LLC*, IPR2019-00275, Paper 7 (PTAB May 10, 2019) (Decision on Institution), Paper 35 (PTAB May 7, 2020) (Final Written Decision).

D. Overview of the '895 Patent

The '895 patent is directed to a wireless security device that can connect to one or more additional devices, such as telephony devices (a wired or wireless telephone) or a media player. Ex. 1001, code (57), 1:43–50, 5:65–6:29. The connection between the wireless security device and the additional devices may be a Bluetooth network connection. *Id.* at 6:53–61. If so, the wireless security device implements one or more Bluetooth wireless protocol profiles for connecting to the additional devices. *Id.* at 1:43–50, 9:1–34. The Bluetooth wireless profiles implemented may include profiles (headset and hands-free) that allow the wireless security device to send commands to a connected telephony device, and to thereby function as a hands-free telephone, with audio for the telephony device routed through a speaker and microphone on the wireless security device. *Id.* at 7:38–8:2, 9:9–34.

The user of the wireless security device can request that the device initiate a call, via a connected telephony device, to emergency services. *Id.* at code (57), 10:1–2. When the user makes a request, the wireless security device determines a current location of the telephony device by requesting the telephone number of the telephony device, the identity of the telephone network providing service to the telephony device, and/or the global positioning system (GPS) location of the telephony device. *Id.* at 10:20–

11:8, Fig. 3 (elements 306, 312, 314, 316). Based at least in part on this location information received, the device identifies an emergency phone number and sends commands to the telephony device to place a call to the identified emergency phone number. *Id.* at 11:9–12:48. In order to determine an emergency phone number corresponding to location information, a lookup table may be used, which provides the emergency telephone number based on the location (e.g., an identified country in which the telephony device is located). *Id.* at 11:56–12:2; Fig. 6. Figure 6, reproduced below, is a data layout view of a lookup table containing geographic locations and emergency numbers. *Id.* at 4:6–7.

EU/Germany	112
USA	911
Japan	110

FIG. 6

Figure 6 depicts a lookup table in which the left column lists countries, and the right column lists corresponding emergency telephone numbers associated with the listed country in each row. *Id.* at 11:61–12:1.

Once an emergency telephone call is connected, the system sends a prerecorded message to the telephony device, including important information about the emergency in order to help facilitate help. *Id.* at 10:9–11, 12:49–65. The prerecorded message may contain data and/or audio. *Id.* at 10:11–13, 12:66–67. If the prerecorded message contains audio, the

telephony device plays the audio over the connected emergency phone call. *Id.* at 10:13–15, 12:67–13:5. “Additionally/alternatively, if the prerecorded message contains data and/or text, the telephony device may send the data and/or text to an emergency service center as a data or text message, or through the connected emergency phone call.” *Id.* at 10:16–19; *see also id.* at 13:5–22.

E. Illustrative Claims

Petitioner challenges claims 7–11, 13–15, and 21–28 of the ’895 patent, all of which are dependent claims.

All of the challenged claims depend from claims of the ’895 patent that were not challenged in this proceeding: challenged claims 7–11 depend directly or indirectly from claim 4, which in turn depends from claim 1. Challenged claims 13–15 depend from claim 12, which in turn depends from claim 1. Challenged claims 21–28 depend directly or indirectly from claim 17. Claim 17 is a method claim comprising steps, each largely echoing the operations described in claim 1. *Compare* Ex. 1001, 16:45–17:26 *with id.* at 18:49–19:26.

Claims 1, 4, 12, and 17 (not challenged) and challenged claims 7, 8, and 13 are reproduced below:

1. [Preamble¹] A wireless security device comprising:
 - [a] a processor;
 - [b] a wireless transceiver;
 - [c] a memory; and
 - [d] computer program instructions stored in the memory, which, when executed by the processor, cause the wireless security device to perform operations comprising:

¹ The Petition provides bracketed labels for the elements of the independent claims. *See, e.g.*, Pet. 28–48. For clarity, we use these labels in this Decision.

- [e.i] selecting and implementing a Bluetooth wireless protocol profile from one or more Bluetooth wireless protocol profiles for connecting to one or more Bluetooth enabled devices;
- [e.ii] wirelessly pairing, via the wireless transceiver over a personal area network, with a Bluetooth enabled telephony device using the selected Bluetooth wireless protocol profile, thus creating a wirelessly paired Bluetooth connection between the wireless security device and the telephony device;
- [f.i] sending a command to the telephony device requesting one or more of:
 - a telephone number of the telephony device;
 - a telephone network providing service to the telephony device; and
 - a global positioning system (GPS) location of the telephony device;
- [f.ii] receiving a response from the telephony device including one or more of:
 - the telephone number of the telephony device;
 - the telephone network providing service to the telephony device; and
 - the GPS location of the telephony device; and
- [f.iii] determining a current location of the telephony device based on one or more of the telephone number, the telephone network, and the GPS location;
- [g.i] accessing a lookup table stored in the memory including one or more location codes and one or more emergency telephone numbers associated with the one or more location codes;
- [g.ii] correlating the location with at least one of the one or more location codes to obtain at least one of the one or more emergency telephone numbers;
- [h.i] sending a command, over the wirelessly paired Bluetooth connection, to the telephony device to place a telephone call to the at least one of the one or more emergency telephone numbers; and
- [h.ii] once the telephone call is placed, sending a prerecorded emergency message to the telephony

device over the wirelessly paired Bluetooth connection, causing the telephony device to transmit the prerecorded emergency message.

Ex. 1001, 16:45–17:26.

4. The wireless security device of claim 1 wherein the wireless security device further comprises:
 - a speaker; and
 - a microphone.

Ex. 1001, 17:40–17:43.

7. The wireless security device of claim 4 further comprising:
 - a light emitting diode; and
 - a vibration motor.

Ex. 1001, 17:56–17:59.

8. The wireless security device of claim 7 wherein the operations further comprise:
 - generating a notification when an incoming telephone call is received by the telephony device, the notification comprising one or more of:
 - illuminating the light emitting diode;
 - activating the vibration motor; and
 - generating an audible sound through the speaker.

Ex. 1001, 17:60–17:67.

12. The wireless security device of claim 1 further comprising a button.

Ex. 1001, 18:27–18:28.

13. The wireless security device of claim 12 wherein the operations further comprise:
 - in response to an activation of the button, answering, by the telephony device, an incoming telephone call received by the telephony device; and
 - in response to an activation of the button, canceling, by the telephone device, an incoming telephone call received by the telephony device.

Ex. 1001, 18:29–18:37.

17. A method comprising:

- [a.i] selecting and implementing, by a wireless security device, a Bluetooth wireless protocol profile from one or more Bluetooth wireless protocol profiles for connecting to one or more Bluetooth enabled devices;
- [a.ii] wirelessly pairing, via a wireless transceiver of the wireless security device over a personal area network, with a Bluetooth enabled telephony device using the selected Bluetooth wireless protocol profile, thus creating a wirelessly paired Bluetooth connection between the wireless security device and the telephony device;
- [b.i] sending a command to the telephony device requesting one or more of:
 - a telephone number of the telephony device;
 - a telephone network providing service to the telephony device; and
 - a global positioning system (GPS) location of the telephony device;
- [b.ii] receiving a response from the telephony device including one or more of:
 - the telephone number of the telephony device;
 - the telephone network providing service to the telephony device; and
 - the GPS location of the telephony device; and
- [b.iii] determining a current location of the telephony device based on one or more of the telephone number, the telephone network, and the GPS location;
- [c.i] accessing a lookup table stored in the memory including one or more location codes and one or more emergency telephone numbers associated with the one or more location codes;
- [c.ii] correlating the location with at least one of the one or more location codes to obtain at least one of the one or more emergency telephone numbers;

- [d.i] sending a command, by the wireless security device, over the wirelessly paired Bluetooth connection, to the telephony device to place a telephone call to the at least one of the one or more emergency telephone numbers; and
- [d.ii] once the telephone call is placed, sending a prerecorded emergency message from the wireless security device to the telephony device over the wirelessly paired Bluetooth connection, causing the telephony device to transmit the prerecorded emergency message.

Ex. 1001, 18:49–19:26.

F. Evidence Relied Upon by Petitioner

With respect to the challenged claims, Petitioner relies on the following references:

Reference		Publication Date / Issue Date	Exhibit
Schlager et al.	US 5,650,770	July 22, 1997 (filed Oct. 23, 1995)	Ex. 1019
Jang et al.	US 7,113,764 B1	Sept. 26, 2006 (filed Sept. 28, 2000)	Ex. 1015
Ayed	US 7,973,657 B2	July 5, 2011 (filed June 3, 2008)	Ex. 1011
Forstall et al.	US 8,275,352 B2	Sept. 25, 2012 (filed Jan. 3, 2008)	Ex. 1009
Berry et al. ("Berry-351")	US 8,903,351 B2	Dec. 2, 2014 (filed Mar. 6, 2009)	Ex. 1007
Turner et al.	US 2004/0046658 A1	Mar. 11, 2004 (filed July 25, 2003)	Ex. 1016

Reference		Publication Date / Issue Date	Exhibit
Sakamoto et al.	US 2008/0220718 A1	Sept. 11, 2008 (PCT filed Sept. 12, 2002)	Ex. 1012
Berry et al. ("Berry-145")	US 2009/0002145 A1	Jan. 1, 2009 (filed June 27, 2007)	Ex. 1014

Petitioner also relies on declarations from Mark R. Lanning.
Ex. 1002; Ex. 1029. Patent Owner supports its rebuttal with a Declaration of Tim A. Williams, PhD. Ex. 2001.

G. Asserted Grounds

Petitioner presents the following grounds of unpatentability, in each case on the basis of pre-AIA² 35 U.S.C. § 103:

Claims Challenged	References(s)/Basis
7, 9, 11, 14, 15, 22, 25, 27, 28	Berry-351, Ayed, Forstall
7, 9, 11, 14, 15, 22, 25, 27, 28	Berry-351, Ayed, Jang
8, 13, 21, 26	Berry-351, Ayed, Sakamoto, Forstall
8, 13, 21, 26	Berry-351, Ayed, Sakamoto, Jang
10, 23	Berry-351, Ayed, Turner, Forstall
10, 23	Berry-351, Ayed, Turner, Jang
24	Berry-351, Ayed, Schlager, Forstall
24	Berry-351, Ayed, Schlager, Jang

² Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284 (2011).

Claims Challenged	References(s)/Basis
7, 9, 11, 14, 15, 22, 25, 27, 28	Berry-145, Ayed, Forstall
7, 9, 11, 14, 15, 22, 25, 27, 28	Berry-145, Ayed, Jang
8, 13, 21, 26	Berry-145, Ayed, Sakamoto, Forstall
8, 13, 21, 26	Berry-145, Ayed, Sakamoto, Jang
10, 23	Berry-145, Ayed, Turner, Forstall
10, 23	Berry-145, Ayed, Turner, Jang
24	Berry-145, Ayed, Schlager, Forstall
24	Berry-145, Ayed, Schlager, Jang

Pet. 3–4.

II. ANALYSIS

A. Legal Standards

It is a petitioner’s burden to demonstrate unpatentability. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (citing *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1326–27 (Fed. Cir. 2008)).

A patent claim is unpatentable 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.” *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 skill in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations³. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). “To satisfy its burden of proving obviousness, a petitioner cannot employ mere conclusory statements. The petitioner must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016). We analyze the asserted grounds with the principles stated above in mind.

B. Level of Ordinary Skill in the Art

Petitioner asserts that the proper level of ordinary skill in the art is that of someone with “at least a bachelor’s degree in computer science, electrical engineering, or equivalent, and two years of experience related to wireless communication devices or related fields.” Pet. 11 (citing Ex. 1002 ¶¶ 30–32.) Patent Owner adopts this definition. PO Resp. 10 (citing Ex. 2001 ¶ 13).

We adopt Petitioner’s provided definition for the level of skill of a person of ordinary skill in the art as reasonable and consistent with the prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (the prior art may reflect an appropriate level of skill in the art).

C. Claim Construction

In an *inter partes* review in which a petition was filed before November 13, 2018, the Board construes claim terms in an unexpired patent according to their broadest reasonable construction in light of the

³ While Patent Owner has provided information regarding the development and sale of its products, it acknowledges that no arguments regarding secondary considerations have been presented. PO Resp. 6–8; Tr. 79:6–13; *see* Pet. Reply 33.

specification of the patent in which they appear. 37 C.F.R. § 42.100(b) (2018); *Cuozzo Speed Techs., LLC v. Lee*, 136 S.Ct. 2131, 2144–46 (2016) (upholding the use of the broadest reasonable interpretation standard); *see* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340, 51,343–44 (Oct. 11, 2018) (adopting, for claim construction in *inter partes* review, the standard set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–19 (Fed. Cir. 2005) (en banc), effective November 13, 2018). The Petition was filed before November 13, 2018, thus we apply the broadest reasonable interpretation standard here.

1. “prerecorded emergency message”

Patent Owner requests that we construe the term “prerecorded emergency message” from limitation [h.ii] of claim 1 and [d.ii] of claim 17 as “message recorded prior to placing a telephone call to the at least one or more emergency telephone numbers,” referring to the placing of a telephone call described in limitations [h.i] of claim 1 and [d.i] of claim 17. PO Resp. 10–12 (citing Ex. 2001 ¶ 17).

Petitioner argues that “prerecorded emergency message” should be interpreted as “a message that includes information about an emergency (*e.g.*, the name and address of the device owner and the location of the device after the emergency occurs) that is recorded any time before the call is placed.” Pet. Reply 3–5. As Petitioner notes, the Specification describes the inclusion, in the prerecorded emergency message, of information about the emergency, such as name and address of the owner of the telephony device. *Id.* at 4–5 (citing Ex. 1003, 12:41–65). One of ordinary skill in the art, Petitioner argues, would have understood this information to have been recorded before the emergency occurs. *Id.* (citing Ex. 1029 ¶ 20).

The crux of the parties' disagreement is whether "prerecorded emergency message" must be in its final form, the form in which it is sent to the telephony device and subsequently transmitted by the telephony device, before the telephone call is placed. Petitioner argues that "the intrinsic record suggests that the message may be generated or finalized any time before it is sent." *Id.* at 3 (citing Ex. 1029 ¶¶ 16–21); Tr. 15:22–17:3.

Patent Owner contends that the message must be in the form in which it is sent before the telephone call, and if a first prerecorded message is transformed, such as from readable information to speech by a speech synthesizer or by transcoding, after the call is placed, the result is a second, different, message, one which was not prerecorded as it was generated after the telephone call was placed. PO Resp. 32–33; PO Sur-Reply 19–20; Tr. 47:18–50:10.

Patent Owner's expert, Dr. Williams, in testimony, described stored information, which he equated with the "message":

Q. If I send a text message that says "The cow jumped over the moon" and each of those words was created and saved before the call was placed, would that text message then qualify as a prerecorded emergency message?

A. In my opinion, yes.

Q. Even if the text message itself wasn't created from those prerecorded elements until after the call was placed?

A. Yes, because information was created and stored, or the message. I'm equating the message with information. The information was created and stored prior to placing the telephone call. The organization of the message is a secondary consideration.

Ex. 1031, 66:11–25.

Petitioner concludes from Dr. Williams's testimony that his expert opinion is that for a message to be "prerecorded," information included in

the message must exist in stored form before the phone call occurs. Pet. Reply 3 (citing Ex. 1031, 56:4–6, 59:25–66:25, 79:15–25). Patent Owner emphasizes that Petitioner’s expert, Mr. Lanning testified that transcoding would need to be performed before stored digital information can be played to a human listener. PO Sur-Reply 18–20 (citing Ex. 2004, 98:9–18, 107:4–25). However, the record presented does not provide any reason for us to determine that “digital information that’s stored in memory” (Ex. 2004, 107:22–23) before the telephone call is placed would not be a prerecorded emergency message, even if processing would be required to transmit that message to the telephony device over the wirelessly paired Bluetooth connection in order to cause the telephony device to transmit the prerecorded emergency message. We agree with Petitioner that Dr. Williams’s testimony supports the idea that stored information, even if assembled or processed after a certain point in time, would still qualify as pre-recorded relative to that point in time. Pet. Reply 3. We credit Mr. Lanning’s testimony that a message could be prerecorded even if stored and then converted into a different form for transmission or communication, e.g., to a form that a human could (audibly) understand. Ex. 2004, 101:15–109:20.

Therefore, we conclude that the broadest reasonable interpretation of “prerecorded emergency message” in the context of limitation [h.ii] of claim 1 and [d.ii] of claim 17 includes a message consisting of information stored before the telephone call is placed, even if the prerecorded emergency message sent is not in the same form as the stored information.

2. *“sending a prerecorded emergency message”*

Patent Owner additionally argues that “sending” a prerecorded message in limitation [h.ii] of claim 1 and [d.ii] of claim 17 should be interpreted as “transmitting a text message.” PO Resp. 33; PO Sur-Reply

13–17. Patent Owner points to the portion of the ’895 patent that describes prerecorded message as either an audio message that the ’895 patent’s security process will “play . . . through the telephony device” or a data message that the security process will “send . . . as a text message or other type of data message.” PO Resp. 33 (quoting Ex. 1001, 12:66–13:9). Patent Owner argues that “[t]he ’895 Patent draws a clear distinction between audio messages which are ‘played’ and data messages (e.g., text messages, audio data) which are ‘sent.’” *Id.* Patent Owner argues that “[a]s indicated in the passage quoted above and throughout the ’895 Patent, prerecorded audio may be either an audio message (i.e., an analog audio message) that may be ‘played’ or a data message (e.g., digital audio file or text message) that may be sent.” PO Sur-Reply 14–15 (quoting and discussing Ex. 1001, 12:66–13:9).

Petitioner cites portions of the ’895 patent that describe “sending” a prerecorded emergency message that is an audio/voice message. Pet. Reply 5–6 (citing Ex. 1001, code (57), 1:55–56). Patent Owner argues, with reference to such portions of the ’895 patent, that these portions “do not specify whether the prerecorded emergency message is an audio message or a data message.” PO Sur-Reply 16. However, several of these portions describe a prerecorded emergency message “sent” to a telephony device, which causes the telephony device to “play” the sent prerecorded emergency message. Ex. 1001, code (57), 1:53–56; *see also* Ex. 1001, 2:66–3:3. Thus, Patent Owner’s argued distinction between a message that may be “played” and one that may be “sent” is not supported by the Specification of the ’895 patent. We decline to hold that the broadest reasonable interpretation of “sending a prerecorded emergency message” in limitation [h.ii] of claims 1

and 17 requires that the prerecorded emergency message be a data message and not an audio message that can be played by the telephony device.

3. “*wireless security device*”

While neither party specifically requests that we construe the term “wireless security device,” (from each of the independent claims that the challenged claims depend from), the proper construction of the term has been put at issue by Patent Owner’s arguments that the preamble of claim 1 is limiting and that Petitioner has identified “a potpourri of vehicle components” in Berry-351 and Berry-145 (collectively, “the Berry references”) that include a number of devices, but neither Berry reference discloses a wireless security device. PO Resp. 15–26. Patent Owner argues that the ’895 patent’s disclosure that “a user may attach wireless security device 14 to his/her keychain” contrasts with the vehicle networks in Berry-351 or Berry-145, which “would not be attached to a key chain.” *Id.* at 19–20 (citing Ex. 2001 ¶ 25). Additionally, Patent Owner contends that the disclosure in the ’895 patent that there is an “owner of wireless security device 14” indicate that the Berry references do not teach a wireless security device, as “[o]ne may refer to the owner of an entire vehicle, but not the owner of a network or system within the vehicle.” *Id.* at 20 (citing Ex. 2001 ¶ 25). Patent Owner argues that, “[t]he figures included in the ’895 Patent also consistently depict a ‘wireless security device’—identified as element (14)—as an individual piece of equipment that may be connected to a network.” *Id.*

However, Patent Owner does not point to evidence supporting that the asserted features of the discussed embodiments and those depicted in the figures should be read into the claims. *See Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004) (“[I]t is improper to read limitations

from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.”). In addition, we agree with Petitioner that the Specification describes a device that can consist of a computer and an external drive, connected using a USB cable or bus. Pet. Reply 9 (citing Ex. 1001, 4:64–67); *see also* Ex. 1001, 4:28–53 (describing, without limitation, a variety of computer-readable storage media). Therefore, while the ’895 patent does describe embodiments in which the wireless security device is “an individual piece of equipment,” as shown in the figures, it also describes an embodiment in which the device has other forms.

Patent Owner attempts to invest the word “device” with inherent meaning that must exclude, e.g., a hypothetical building and the Berry references’ connected vehicle components described in the Petitioner’s grounds. PO Resp. 16–17, 24–25. We decline to do so. *Cf. Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1350 (Fed. Cir. 2015) (describing, in a means-plus-function context, that “[g]eneric terms such as ‘mechanism,’ ‘element,’ ‘device,’ and other nonce words that reflect nothing more than verbal constructs may be used in a claim in a manner that is tantamount to using the word ‘means’ because they ‘typically do not connote sufficiently definite structure’”).

While Patent Owner does not request an express construction of the recited “wireless security device,” on the evidence and arguments provided, we reject the implicit interpretation that this term does not encompass a vehicle security system such as that taught in each of the Berry references.

D. Alleged Obviousness of Claims 7, 9, 11, 14, 15, 22, 25, 27, and 28 over Berry-351, Ayed, and Forstall or Jang

1. Overview of Berry-351 (Ex. 1007)

Berry-351 relates to a vehicle communication system that communicates wirelessly with a cellular telephone located “at the vehicle.” Ex. 1007, code (57), 2:6–12, 8:20–32. The vehicle communication system, upon detecting an emergency, sends a signal to the cellular telephone causing the cellular telephone to place an emergency call to an emergency responder or agency. *Id.* at code (57), 2:12–20, 8:44–9:35. The call may include elements of vehicle or vehicle occupant information collected by the vehicle communication system, such as location information, operation information (e.g., last velocity, type of vehicle emergency condition), vehicle information (e.g., type and color of vehicle), and occupant information. *Id.* at 9:1–12. When the vehicle communication system places an emergency call, the vehicle communication system synthesizes elements of this information into speech signals played to the emergency responder on the call. *Id.* at 9:36–39.

In an alternative embodiment, a transceiver within the vehicle communication system contacts a remotely located Wireless Local Area Network (LAN) / Wide Area Network (WAN) transceiver. *Id.* at 12:3–13. That LAN/WAN transceiver uses its location information or GPS location information from the vehicle communication system or a nomadic device (such as a mobile phone) to determine the IP address or telephone number of an emergency call center. *Id.* at 11:63–64, 12:20–33. A look-up table can be used to determine the nearest call center based on the GPS information received. *Id.* at 12:30–33. The LAN/WAN transceiver establishes a connection with the emergency call center. *Id.* at 12:13–15, 33–35.

2. *Overview of Ayed (Ex. 1011)*

Ayed relates to a “portable proximity alarm [system]” that alarms when a portable electronic device leaves the range of an alarm apparatus. Ex. 1011, code (57). One embodiment allows a button on the alarm apparatus to switch to an audio mode in which the alarm apparatus establishes a Bluetooth connection with the monitored portable electronic device and send or receive audio to the monitored portable electronic device. *Id.* at 10:24–29. This Bluetooth connection may be established using a “HSP (headset profile) connection or a HFP (Hands-Free profile) connection.” *Id.* at 10:27–29.

3. *Overview of Forstall (Ex. 1009)*

Forstall relates to obtaining contact information, such as emergency service contact information, for a mobile device, such as a handheld computer or cellular telephone. Ex. 1009, 1:33–39, 2:22–29. A current geographic location of a device is obtained, and the device receives and stores contact information based on that location. *Id.* at 1:33–39, 8:24–9:33. Forstall includes an example of a data structure storing such received contact information, including the emergency phone number and the United States consulate phone number for one location, exemplary “Country A.” *Id.* at 10:41–57, Fig. 5. Thus, the user has the correct emergency phone numbers for their current location readily available in case of an emergency. *Id.* at 1:56–64.

4. *Overview of Jang (Ex. 1015)*

Jang relates to a method for transmitting an emergency call from a mobile phone. Ex. 1015, code (57). In Jang, a designated key can be used to make an emergency call. *Id.* at 3:37–41. A mapping table includes plural mobile country code (MCC) values, and corresponding emergency call

numbers. *Id.* at 3:45–51. When a user requests an emergency call, a component of the mobile phone searches the mapping table to find a MCC matching the current MCC for the mobile phone, and uses the corresponding emergency call number to make an emergency call. *Id.* at 4:29–39.

5. *Claims 1, 4, 12, and 17*

Challenged claim 7 depends from claim 4, which in turn depends from claim 1. Challenged claims 13–15 depend from claim 12, which further depends from claim 1. Challenged claims 21, 22, and 24–28 depend from claim 17. Therefore, although claims 1, 4, 12, and 17 are not challenged in this Petition, we address them here because the limitations of those claims are incorporated into the claims that are challenged as a part of the Petition.

a) *Claims 1 and 17*

Claim 1 is a system claim directed to a wireless security device including a memory and computer program instructions stored in the memory that cause the wireless security device to perform certain operations. Ex. 1001, 16:46–26. Claim 17 is a method claim comprising steps, each largely echoing the operations described in claim 1. *Compare id.*, with *id.* 18:49–19:26. We address these claims together, as do the parties. *See, e.g.*, Pet. 23–40; PO Resp. 15–33.

(1) *Claim 1 [Preamble]: A wireless security device*

Petitioner argues that the claim 1 preamble’s wireless security device⁴ is taught in vehicle components of Berry-351’s system for emergency call handling, including components that connect wirelessly (via Bluetooth) to a cell telephone and are used for security, to make calls for assistance. Pet.

⁴ While not separately discussed by Petitioner or Patent Owner, we note that claim 17, a method claim, also recites “a wireless security device” that performs several of the claimed steps. Ex. 1001, 18:49–19:26.

23–26 (citing, *inter alia*, Ex. 1007, 1:5–6, 2:35–39, Figs. 1, 2, 6; Ex. 1002 ¶ 117).

Patent Owner, arguing that the preamble is limiting, contends that Berry-351 does not disclose a “wireless security device” in its vehicle system and vehicle components according to its interpretation of the term as limited, for example, to a device that may be attached to a keychain or as shown in the ’895 patent’s figures. PO Resp. 15–26; PO Sur-Reply 3–6. However, as discussed above, *supra* Section II.C.3, we do not agree with the claim construction that Patent Owner advances.

Patent Owner contends that Petitioner did not properly show that Berry-351’s system is a wireless security system because Petitioner divided the term into constituent words and addressed the parts separately, describing Berry-351’s disclosures of “wireless” capabilities and “security” use, rather than providing an analysis of how one of ordinary skill would have interpreted a “wireless security device.” PO Sur-Reply 3–4. But, as Petitioner contends, the Berry-351 system interacts wirelessly with a telephony device (the nomadic device/cell phone of Berry-351) and places emergency calls; in the absence of any evidence from the Specification requiring a different or more nuanced interpretation of “wireless security device,” we agree with Petitioner that this is consistent with the description of the functions of a “wireless security device” in the ’895 patent Specification. Pet. 28–30; Pet. Reply 8–9 (citing Ex. 1001, code (57), 1:39–3:60).

Based on our review of the evidence of record, Petitioner has shown that Berry-351 teaches or suggests the recitations in the preamble of claim 1. In light of this conclusion we need not, and do not, reach a determination regarding whether the preamble is limiting.

(2) *Claim 1 limitations 1[a], 1[b], 1[c], and 1[d]: “a processor,” “a wireless transceiver,” “a memory,” and “computer program instructions stored in the memory, which, when executed by the processor, cause the wireless security device to perform operations”*

Petitioner argues that Berry-351 teaches the processor of limitation [a] including in data processor 16 shown in Berry-351’s Figure 1 and CPU 72 shown in Berry-351’s Figure 2, alone or in conjunction with GPS processors. Pet. 26–27 (citing, *inter alia*, Ex. 1007, code (57), 4:26–50, Fig. 1 (elements 14, 16); Ex. 1002 ¶¶ 124–125).

Petitioner contends that Berry-351 teaches a wireless transceiver (limitation 1[b]) in element 38 of Berry-351’s Figure 1, a transceiver that communicates with a cellular telephone via Bluetooth communications protocols. *Id.* at 27–28 (citing, *inter alia*, Ex. 1007, Fig. 1, 5:28–34; Ex. 1002 ¶¶ 126–127); Ex. 1007, 5:28–31.

Petitioner contends that Berry-351 teaches a memory (limitation 1[c]) in elements 40 (removable memory), 26 (memory), and 22 (storage) of Berry-351’s Figure 1. Pet. 28–29 (citing, *inter alia*, Ex. 1007, Fig. 1; Ex. 1002 ¶¶ 128–129).

Petitioner argues that one of ordinary skill in the art would have understood Berry-351’s teachings regarding algorithms implemented by one or more processors to include instructions related to emergency call functionality stored as computer program instructions in memory. *Id.* at 29–30 (citing, *inter alia*, Ex. 1007, 2:12–43, 8:10–19, Fig. 4; Ex. 1002 ¶¶ 120–134). The operations of claim limitation 1[d] are described in the balance of claim 1; these are discussed in the next subsections of this Decision.

Based on our review of the evidence of record, Petitioner has shown that Berry-351 teaches or suggests the recitations in limitations 1[a], 1[b], 1[c], and 1[d] of claim 1.

(3) *Claim 1[e.i] and claim 17[a.i]: “selecting and implementing . . . a Bluetooth wireless protocol profile from one or more Bluetooth wireless protocol profiles for connecting to one or more Bluetooth enabled devices” and claim 1[e.ii] and claim 17[a.ii]: “wirelessly pairing, via [the/a] wireless transceiver over a personal area network, with a Bluetooth enabled telephony device using the selected Bluetooth wireless protocol profile, thus creating a wirelessly paired Bluetooth connection between the wireless security device and the telephony device”*

Petitioner argues that Berry-351 teaches wirelessly pairing a Bluetooth transceiver in the vehicle and a Bluetooth-enabled nomadic device such as a cell phone. Pet. 30–32 (citing, *inter alia*, Ex. 1007, 6:61–7:5; Ex. 1002 ¶¶ 138–148). Petitioner also argues that the limitations relating to selection and implementation of a Bluetooth wireless protocol profile would have been obvious in view of Ayed’s teachings regarding the use of a headset or hands-free connection between an alarm device and a monitored remote device, which, together with Berry-351’s teachings, teach or suggest selection and implementation of an appropriate profile for audio communication and wireless pairing of a vehicle security system and cell phone, creating a wirelessly paired Bluetooth connection between vehicle security system and cell phone. *Id.* at 30–32 (citing, *inter alia*, Ex. 1011, 5:53–6:11, 10:23–36; Ex. 1007, 6:61–7:5; Ex. 1002 ¶¶ 133–148). Petitioner argues that one of ordinary skill in the art would have found it obvious to modify Berry-351 to incorporate Ayed’s teachings with respect to Bluetooth profiles and Bluetooth profile selection to enhance remote call functionality, reliability, and device compatibility. *Id.* at 32 (citing Ex. 1002 ¶¶ 86–91, 144–148; referring to Pet 15–16⁵).

⁵ In several places in Section XI.A.4 of the Petition (such as on page 32) and in subsequent sections of the Petition, Petitioner refers the reader to

Petitioner contends that the combination of Berry-351 and Ayed teaches the wireless pairing of a Bluetooth-enabled cellular telephone with the vehicle security system using a selected Bluetooth protocol and thus creating a Bluetooth connection. Pet. 32 (citing, *inter alia*, Ex. 1007, 6:61–7:5; Ex. 1011, 5:53–60; Ex. 1002 ¶¶ 149–151). Petitioner further argues that one of ordinary skill would have understood that such pairing creates a wirelessly paired connection over a wireless “personal area network.” *Id.* (citing Ex. 1002 ¶¶ 149–151).

Based on our review of the evidence of record, Petitioner has shown that the combination of Berry-351 and Ayed teaches or suggests the recitations in limitations 1[e.i] and 1[e.ii] of claim 1 and limitations 17[a.i] and 17[a.ii] of claim 17.

- (4) *Claim 1[f.i] and claim 17[b.i]: “sending a command to the telephony device requesting one or more of: a telephone number of the telephony device; a telephone network providing service to the telephony device; and a global positioning system (GPS) location of the telephony device;” claim 1[f.ii] and claim 17[b.ii] “receiving a response from the telephony device including one or more of: the telephone number of the telephony device; the telephone network providing service to the telephony device; and the GPS location of the telephony device;” and claim 1[f.iii] and claim 17[b.iii] “determining a current location of the telephony device based on one or more of the telephone number, the telephone network, and the GPS location”*

Petitioner argues that one of ordinary skill in the art would have found limitations [f.i] and [f.ii] of claim 1 and limitations [b.i] and [b.ii] of claim 17 obvious in view of Berry-351’s cellular phone 50 including a “global positioning signal receiver/processor 53,” which provides position information for the cellular phone. Pet. 33–34 (citing, *inter alia*, Ex. 1007,

Section XI.A.4. We understand this to be a typographical error, and to be referring to Section XI.A.3.

4:51–56; Ex. 1002 ¶¶ 152–158). Petitioner’s argument relies on GPS location to teach the claimed “GPS location of the telephony device,” from the “one or more” options presented in the claim limitations at issue. *Id.*

Petitioner additionally cites Forstall’s device retrieving its own location information and Jang’s device obtaining and internally using the MCC upon power-up. *Id.* at 33–34 (citing Ex. 1009, 8:42–61, 9:34–55; Ex. 1005, 3:54–62). Petitioner, however, does not persuasively explain how these teachings relate to a command sent to or a response received from a telephony device for GPS information.

Petitioner contends that Berry-351 teaches [f.iii] of claim 1 and [b.iii] of claim 17 in Berry-351’s processor determining “a present street location” based on GPS information and map information. Pet. 34–35 (emphasis omitted) (citing, *inter alia*, Ex. 1007, 4:42–56, 4:61–65; Ex. 1002 ¶ 149).

Based on our review of the evidence of record, Petitioner has shown that Berry-351 teaches or suggests the recitations in limitations 1[f.i], 1[f.ii] and 1[f.iii] of claim 1 and limitations 17[b.i], 17[b.ii], and 17[b.iii] of claim 17.

(5) *Claim 1[g.i] and claim 17[c.i]: “accessing a lookup table stored in the memory including one or more location codes and one or more emergency telephone numbers associated with the one or more location codes”*

Petitioner argues that Berry-351 teaches or suggests a lookup table as per these claim limitations, but not one residing on the vehicle security system’s local memory. Pet. 35. Petitioner further argues that either Forstall or Jang discloses the feature as claimed. *Id.* at 18–23, 35–36.

Petitioner cites Berry-351’s teaching of a “look-up table,” which is accessed to determine a telephone number for an emergency call, given a location. *Id.* at 35 (emphasis omitted) (citing Ex. 1007, 12:22–25).

Petitioner contends that Jang’s mobile phone uses a “mapping table” that correlates location codes with emergency phone numbers. Pet. 13–14, 18–19, 22–23, 35 (citing Ex. 1015, code (57), 3:37–50, Fig. 2; Ex. 1002 ¶¶ 104–108, 118–121, 161, 162, 167, 168). Jang discloses using current location information to search a table and find an emergency number corresponding to that information, and Petitioner argues that, while not taught in Jang, one of ordinary skill would have found it obvious to use a GPS location to determine the current country, and then use Jang’s “mapping table” to determine the emergency phone number for the determined country. *Id.* at 22–23 (citing Ex. 1002 ¶¶ 112–113, 118–121).

Petitioner argues that one of ordinary skill would have found it obvious to modify Berry-351’s vehicle system to include a table as in Jang for determining an emergency telephone number for the current location so a user need not spend time finding a correct phone number in the event of an emergency. Pet. 19–20, 22–23 (citing Ex. 1015, code (57), 6:62–71, Fig. 2; Ex. 1002 ¶¶ 113, 118–121).

Patent Owner argues that Jang’s disclosure concerns a telephony device, not a vehicle, and that if one of ordinary skill “would think to combine the teachings of . . . Jang with Berry-351, they would logically consider the teaching of [Jang] to apply to the recited telephony device . . . [a]nd . . . would necessarily consider locating any lookup tables disclosed [in Jang], if at all, within the telephony device[.]” PO Resp. 29–30 (citing Ex. 2001 ¶¶ 35, 36). Patent Owner argues that including a lookup table in the vehicle, rather than in the cellular telephone disclosed in Berry-351, would result in a more complicated configuration. *Id.* at 30 (citing Ex. 2001 ¶ 36). Petitioner argues that one of ordinary skill would have, in deciding how to combine Jang with Berry-351, stored the look-up table in the vehicle

system, to enhance the speed and reliability of the determination of an emergency number and to allow the number to be determined regardless of which cell phone is in the vehicle. Pet. Reply 19–20 (citing Ex. 1002 ¶¶ 113; Ex. 1029 ¶¶ 49–50); Pet. 20 (citing Ex. 1002 ¶¶ 113–114; Ex. 1007, 10:39–50).

Obviousness “does not require that the motivation be the best option, only that it be a suitable option from which the prior art did not teach away.” *PAR Pharm., Inc. v. TWI Pharms., Inc.*, 773 F.3d 1186, 1197–98 (Fed. Cir. 2014) (emphasis omitted) (citing *Galderma Labs., L.P. v. Tolmar, Inc.*, 737 F.3d 731, 738 (Fed. Cir. 2013)). Here, we are presented with evidence from Mr. Lanning showing that one of ordinary skill in the art would have looked to Jang’s table to provide the prompt performance of an emergency call, in combination with the teachings of Berry-351. Ex. 1002 ¶¶ 108, 113–115, 118–120 (cited at Pet. 18). We credit both experts’ testimony that there would have been advantages to storing the table in the vehicle system of Berry-351 or, alternatively, in the cellular telephone described in Berry-351. However, motivation need not be for the best option, and we find that storage of the table locally in the vehicle system memory would have been a suitable option for one of ordinary skill at the time of the invention.

Patent Owner additionally argues that Jang is not in the same field of endeavor as Berry-154, and thus one of ordinary skill would not think to combine the references. PO Resp. 13–15. However, we agree with Petitioner that Jang and Berry-154 involve similar devices and each addresses the handling of emergency calls placed by a cell phone based on a current location. See Pet. Reply. 6–7; see also *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992) (“If a reference disclosure has the same purpose as the

claimed invention, the reference relates to the same problem, and that fact supports use of that reference in an obviousness rejection.”).

Petitioner additionally argues that Forstall discloses the feature of limitation 1[g.i] and 17[c.i] in its disclosure of a device storing a location database, mapping GPS information with higher level locations (country or city) and including an address book which correlates location codes with emergency phone numbers. Pet. 18–20, 35 (citing Ex. 1009, 7:40–47, 8:42–10:14). Patent Owner argues that Forstall does not disclose a locally stored lookup table, but rather that it discloses contact information items for one location received from a location-based service. PO Resp. 27–28 (citing Ex. 1009, 8:47–9:4; Ex. 2001 ¶ 32). Patent Owner contends that the address book in Forstall is described as an application that might commonly be found on a mobile phone, and is not a lookup table correlating a location with a location code. *Id.* at 28 (citing Ex. 1009, 7:40–46; Ex. 2001 ¶ 33).

Based on our review of the evidence of record, Petitioner has shown that Jang teaches or suggests the recitations in limitations 1[g.i] of claim 1 and 17[c.i] of claim 17, and that one of ordinary skill in the art would have combined these teachings with those of Berry-351. In light of this determination, we need not address whether Forstall teaches or suggests these limitations.

(6) Claim 1[g.ii] and 17[c.ii]: “correlating the location with at least one of the one or more location codes to obtain at least one of the one or more emergency telephone numbers”

Petitioner argues, as discussed above, that one of ordinary skill would have modified Berry-145’s vehicle security system to include Jang’s local lookup table. Petitioner presents two arguments, relating to two different postulated antecedent bases for “location” – one based on the location being

the “GPS location of the telephony device” and the second based on the “current location of the telephony device” (as determined in [f.iii] of claim 1 or [b.iii] of claim 17. Pet. 36–39.

Petitioner argues that, if “location” in this limitation refers to the GPS location of the telephony device, one of ordinary skill would have found it obvious “to use the GPS data received from the cellphone to determine the current location area” and then to use the Jang mapping table to determine the emergency phone number that correlates with the current country. Pet. 37 (citing Ex. 1002 ¶¶ 171–175.) Alternatively, Petitioner argues that, if “location” in this limitation is the determined current location, one of ordinary skill, having calculated a current country, would have found it obvious to use the Jang mapping table to obtain an emergency telephone number. *Id.* at 38–39 (citing Ex. 1002 ¶¶ 176–179).

Based on our review of the evidence of record, Petitioner has shown that the combination of Berry-145 and Jang teaches or suggests the recitations in limitation [g.ii] of claim 1 and limitation [c.ii] of claim 17 under both interpretations of the antecedent basis for “location” identified by Petitioner.⁶

(7) Claim 1[h.i] and claim 17[d.i]: “sending a command, over the wirelessly paired Bluetooth connection, to the telephony device to place a telephone call to the at least one of the one or more emergency telephone numbers”

Petitioner asserts that a command to the telephony device to place an emergency call is taught or suggested by Berry-351, in which a component of Berry-351’s vehicle system sends a call command to initiate a call on a

⁶ Accordingly, we need not address and resolve the proper antecedent basis for “location” in these limitations.

connected cellular telephone to an emergency responder. Pet. 39 (citing, *inter alia*, Ex. 1007, code (57), 9:28–31, 11:2–5). As Bluetooth is used to wirelessly pair the telephony device in Berry-351, Petitioner argues, it would have been obvious that such a command would be sent over the wirelessly paired Bluetooth connection. *Id.* at 39–40 (citing Ex. 1002 ¶¶ 181–183).

Based on our review of the evidence of record, Petitioner has shown that Berry-351 teaches or suggests the recitations in limitation [h.i] of claim 1 and limitation [d.i] of claim 17.

(8) *Claim 1[h.ii] and claim 17[d.ii]: “once the telephone call is placed, sending a prerecorded emergency message to the telephony device over the wirelessly paired Bluetooth connection, causing the telephony device to transmit the prerecorded emergency message”*

Petitioner describes the teachings of Berry-351 regarding the collection and storage of vehicle and occupant information, and argues that this information teaches the generation of a prerecorded emergency message, which is speech synthesized and read to an emergency responder. Pet. 40 (citing Ex. 1007, 9:1–16, 9:28–45). Petitioner argues that one of ordinary skill would have understood Berry-351 to describe the vehicle security system sending a prerecorded emergency message, via Bluetooth, to the telephony device, for transmission to the emergency telephone number. *Id.* (citing Ex. 1002 ¶¶ 184–189).

Patent Owner argues, as per the claim construction argument addressed above at sections II.C.1–2, that Berry-351 does not teach sending a prerecorded message, because the speech signals are not generated until after the call is made and because the message is not a text message. PO Resp. 31–33; PO Sur-Reply 13–20. However, as set forth in our claim construction, *supra* Sections II.C.1–2, the broadest reasonable interpretation of “prerecorded emergency message” includes a message consisting of

information stored before the telephone call is placed, even if the prerecorded emergency message sent is not in the same form as the stored information, and does not require that the prerecorded emergency message to be sent be a data message. These arguments are based on Patent Owner's claim construction, which we declined to adopt, and therefore, based on our review of the evidence of record, Petitioner has shown that Berry-351 teaches or suggests the recitations in limitation [h.ii] of claim 1 and limitation [d.ii] of claim 17.

b) Claim 4

Claim 4 adds that the wireless security device of claim 1 further comprises “a speaker; and a microphone.”

Petitioner argues that the system of Berry-351 teaches a speaker and a microphone. Pet. 41 (citing Ex. 1007, Fig. 1 (element 32), Fig. 2 (elements 77 and 87), 6:53–54, 6:42; Ex. 1002 ¶¶ 190–191).

Based on our review of the evidence of record, Petitioner has shown that Berry-351 teaches or suggests the additional limitation of claim 4.

c) Claim 12

Claim 12 adds that the wireless security device of claim 1 further comprises “a button.”

Petitioner argues that the system of Berry-351 includes “a button 91 or similar input.” Pet. 44–55 (citing Ex. 1007, 7:1–5).

Based on our review of the evidence of record, Petitioner has shown that Berry-351 teaches or suggests the additional limitation of claim 4.

6. Claim 7

Claim 7 adds to claim 4 the limitation that the wireless security device further comprises “a light emitting diode” and “a vibration motor.”

Petitioner argues that the system of Berry-351 includes a light emitting diode (LED) issuing a warning or notification. Pet. 16, 41 (citing, *inter alia*, Ex. 1007, 8:20–31; Ex. 1002 ¶¶ 93–94). Petitioner further contends that Ayed discloses user notification via a vibrator. *Id.* at 41 (citing Ex. 1011, 8:25–32). Petitioner argues that one of ordinary skill would consider adding the tactile notification of Ayed to Berry-351’s system in order to provide additional notification to a user, and to prevent a driver’s visual attention from being directed away from the road. *Id.* at 17–18 (citing Ex. 1002 ¶¶ 101–103). Petitioner argues that “[i]t was well-understood in the art that warnings can be communicated to a driver by a vibration motor in the steering wheel or the driver seat, as disclosed, for example, by Leicht^[7].” *Id.* at 18 (citing Ex. 1018, code (57), Fig. 2 (elements 44, 45); Ex. 1002 ¶ 103).

Patent Owner argues that Petitioner has improperly incorporated another reference (Leicht) into the obviousness analysis, without providing the necessary support for the combination. PO Resp. 34–35; Tr. 56:1–57:2.

Petitioner’s argument, however, is that Leicht shows that one of ordinary skill would have understood that a vibration motor could be used to provide warnings, such as those provided by the LED of Berry-351, to a user. Pet. 18, 41. Petitioner does not rely on Leicht for teaching the combination of a vibrator with a vehicle network; rather, Petitioner relies on Ayed to teach user notification via a vibrator. Pet. 18 (citing Ex. 1011, 8:25–8:32 (describing tactile means “such as a vibrator, or a heat-generating device” to “convey information to the user”), 13:64–14:4; Ex. 1002 ¶ 101); Pet. Reply 28; Tr. 30:19–33:20, 70:21–72:24. While Petitioner describes Leicht as illustrating that it was well known in the art to have a driver of a

⁷ U.S. Patent No. 7,675,432 B2, issued March 9, 2010 (Ex. 1018).

vehicle notified by a vibration motor “in the steering wheel or driver seat,” this is not a requirement of claim 7. According to Petitioner, the proposed combination of Ayed’s vibrator with Berry-351’s system is motivated by the benefit of adding a tactile notification method as taught in Ayed, namely, to ensure that notification is effective for users with different capabilities. Pet. 17–18 (citing Ex. 1002 ¶¶ 101–102). Mr. Lanning describes that one of ordinary skill “would have had a reasonable expectation of success” in the proposed combination because “[i]t was well-understood in the art that warnings can be communicated to a driver by a vibration motor in the steering wheel or the driver seat” and cites Leicht as an example of this understanding. Ex. 1002 ¶ 103 (cited at Pet. 18). In sum, Petitioner permissibly and persuasively relies on Leicht to support its assertion that one of ordinary skill “would have had a reasonable expectation of success in adding” Ayed’s vibrator to Berry-351’s system in the manner proposed. Pet. 18; Ex. 1002 ¶ 103; see *Ariosa Diagnostics v. Verinata Health, Inc.*, 805 F.3d 1359, 1365 (Fed. Cir. 2015) (holding that the Board may consider cited “evidence of the background understanding of skilled artisans” that is not identified as prior art in an asserted ground of unpatentability because “[a]rt can legitimately serve to document the knowledge that skilled artisans would bring to bear in reading the prior art identified as producing obviousness”).

Patent Owner argues that “Petitioner does not explain how a vibrator would be combined with a vehicle network as disclosed in Berry-351” in view of the cited references. PO Resp. 34. Patent Owner additionally argues that the combination would not result in a wireless security device, as Petitioner identified certain components in Berry-351 as the components of the wireless security device of claim 1, but an added vibrator in a seat or steering wheel would be outside of these identified components. *Id.* at 35

(citing Ex. 2001 ¶ 44). Patent Owner’s expert opines that “it would not be obvious to a POSITA to combine a vibration motor with the vehicle networks disclosed in the Berry References to implement a wireless security device,” but does not provide any additional explanation or reasoning. Ex. 2001 ¶ 44.

With respect to the LED of claim 7, Berry-351 teaches “a warning or other notification” being issued by an LED, as the Petition explains. Ex. 1007, 8:20–31 (cited at Pet. 41). This LED is not shown as one of Berry-351’s components corresponding to claim 1’s wireless security device, but the portion of Berry-351 cited by Petitioner for claim 7 describes a process for monitoring the cellular-telephone link’s status and reporting it via an LED, and that the process “may be implemented by one or more processors, such as data processor 16.” *Id.* at 8:10–32 (cited at Pet. 41). Data processor 16 is the element identified in the Petition as teaching the processor of claim 1. Pet. 26–27 (citing, *inter alia*, Ex. 1007, code (57), 4:26–50, Fig. 1 (elements 14, 16); Ex. 1002 ¶¶ 124–125). We are persuaded that the cited portion of Berry-351 teaches an LED as a notification component that is part of the Berry-351 vehicle security system.

When this teaching of Berry-351 is combined with Ayed’s teaching of a visual or tactile notification via a vibrator, that vibrator would be part of a vehicle security system just as Berry-351’s visual notification component (the LED) is described as a part of the vehicle security system used to notify users of the status of a link. *See KSR*, 550 U.S. 398, 417 (“[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.”).

Thus, based on our review of the evidence of record, Petitioner has shown that claim 7 is unpatentable as obvious over Berry-351, Ayed, and Jang. In light of this conclusion, we need not, and do not, reach a determination on Petitioner's alternative assertion that claim 7 would have been obvious over Berry-351, Ayed, and Forstall.

7. Claims 9 and 22

Claim 9 adds to claim 7 the limitation of “generating an out-of-range notification when a measurement of a quality parameter of the Bluetooth wireless connection indicates the quality parameter . . . is outside a predetermined quality threshold” and that this notification comprises one or more of “illuminating the light-emitting diode; activating the vibration motor; and generating an audible sound through the speaker.” Claim 22 adds a substantially similar step to the method of claim 17.

Petitioner argues that Berry-351 in view of Ayed teaches generation of an out-of-range notification because Ayed discloses that a Bluetooth link may be dropped if the distance between a system and a connected mobile phone is too large. Pet. 16–17, 42 (citing Ex. 1011, 7:8–10, 8:25–32, 13:11–15, 13:64–14:4; Ex. 1002 ¶¶ 92–99). Petitioner further argues that the Ayed notification may be audio, visual, or tactile. *Id.* at 18 (citing Ex. 1011, 8:25–32, 13:64–14:4; Ex. 1002 ¶¶ 101–102).

Other than the arguments presented with respect to the claims from which claims 9 and 22 depend, Patent Owner presents no arguments relating to features added by claims 9 and 22.

Based on our review of the evidence of record, Petitioner has shown that claims 9 and 22 are unpatentable as obvious over Berry-351, Ayed, and Jang. In light of this conclusion, we need not, and do not, reach a

determination on Petitioner's alternative assertion that claims 9 and 22 would have been obvious over Berry-351, Ayed, and Forstall.

8. *Claims 11 and 25*

Claims 11 and 25 add to the claims from which they depend (claim 7 and claim 17, respectively) the limitation that the operations or method further comprises “generating a notification when at least one of the one or more Bluetooth wireless protocol profiles is disconnected by a paired Bluetooth device” with the notification comprising illuminating a light emitting diode, activating a vibration motor, and/or generating an audible sound through the speaker.

Petitioner argues that, “[i]n view of Ayed’s teaching that the Bluetooth profile . . . allows sending commands over the Bluetooth link ‘to place and receive calls,’ it would have been obvious to modify Berry-351’s vehicle security system to generate the notification when the profile is disconnected.” Pet. 43 (citing Ex. 1002 ¶¶ 199–202 (quoting Ex. 1011, 11:12–13)). This would, Petitioner contends, provide a benefit similar to the Berry-351 notification regarding the availability of the Bluetooth link by informing a user that call functionality may not be available without further action. *Id.* at 44. Petitioner refers back to its prior arguments regarding the form of notification (e.g., visual, tactile, audible). *Id.*

Other than the arguments presented with respect to the claims from which claims 11 and 25 depend, Patent Owner presents no arguments relating to features added by claims 11 and 25.

Based on our review of the evidence of record, Petitioner has shown that claims 11 and 25 are unpatentable as obvious over Berry-351, Ayed, and Jang. In light of this conclusion, we need not, and do not, reach a

determination on Petitioner's alternative assertion that claims 11 and 25 would have been obvious over Berry-351, Ayed, and Forstall.

9. Claims 14 and 27

Claims 14 and 27 add to the claims from which they depend (claim 12 and claim 17, respectively) the limitation that the operations or method further comprises "canceling a panic alarm in response to activation of [the/a] button."

Petitioner argues Berry-351 teaches or suggests a button or switch used to cancel an emergency response. Pet. 45 (citing, *inter alia*, Ex. 1007, 8:50–56). Petitioner cites Ayed's teachings that "[c]ontrol or activation switches can be any type of button" and "are used to turn the loss prevention alarm ON/OFF [or] to shut off the alarm." *Id.* (citing Ex. 1011, 5:23–26).

Other than the arguments presented with respect to the independent claims from which claims 14 and 27 depend, Patent Owner presents no arguments relating to the features added by claims 14 and 27.

Based on our review of the evidence of record, Petitioner has shown that claims 14 and 27 are unpatentable as obvious over Berry-351, Ayed, and Jang. In light of this conclusion, we need not, and do not, reach a determination on Petitioner's alternative assertion that claims 14 and 27 would have been obvious over Berry-351, Ayed, and Forstall.

10. Claims 15 and 28

Claims 15 and 28 add to the claims from which they depend (claim 12 and claim 17, respectively) the limitation that the operations or method further comprises "canceling an out-of-range alarm in response to one of: activation of [the/a] button [of the wireless security device]; and the Bluetooth wireless connection becoming reconnected."

Petitioner refers to arguments made with respect to claims 14 and 27 that Berry and Ayed teach cancelling an alarm in response to activation of a button. Pet. 45–46. Petitioner additionally cites Ayed’s teaching that upon reestablishing reconnection, a disconnection alarm will “automatically shut[] off.” *Id.* at 46 (citing Ex. 1011, 13:15–25).

Other than the arguments presented with respect to the independent claims from which claims 15 and 28 depend, Patent Owner presents no arguments relating to features added by claims 15 and 28.

Based on our review of the evidence of record, Petitioner has shown that claims 15 and 28 are unpatentable as obvious over Berry-351, Ayed, and Jang. In light of this conclusion, we need not, and do not, reach a determination on Petitioner’s alternative assertion that claims 15 and 28 would have been obvious over Berry-351, Ayed, and Forstall.

E. Alleged Obviousness of Claims 8, 13, 21, and 26 over Berry-351, Ayed, Sakamoto, and Forstall or Jang

Petitioner argues that claims 8, 13, 21, and 26 would have been obvious over a combination of Berry-351, Ayed, Sakamoto, and Forstall or Jang. Pet. 46–53.

1. Overview of Sakamoto (Ex. 1012)

Sakamoto relates to a system for communications involving a driver of a vehicle or a rider of a motorcycle. Ex. 1012, code (57), ¶¶ 1, 6, 32. A user, for example, a rider of a motorcycle, carries a mobile phone that communicates via Bluetooth with a headset device. *Id.* ¶¶ 34–40. When the phone receives a call, an indicator light signal indicates to the user that a call has arrived. *Id.* ¶ 41, Fig. 4. The user may push a keypad to start the communication. *Id.* ¶ 42. The user may also use the keypad to end the call. *Id.* ¶ 45.

2. *Claims 8 and 21*

Claims 8 and 21 each add to the claims from which they depend (claims 7 and 17, respectively) the generation of “a notification when an incoming telephone call is received by the telephony device, the notification comprising one or more of” an LED illumination, vibration motor activation, or the generation of an audible sound.

Petitioner argues that one of ordinary skill in the art would have added Sakamoto’s teaching of indicating an incoming call to a driver, via an LED indicator, to augment Berry-351’s teaching of a notification regarding the status of a communication link with a cell phone using an LED display. Pet. 50 (citing Ex. 1007, 8:20–31; Ex. 1012 ¶¶ 41–42; Ex. 1002 ¶¶ 218–219). Petitioner further argues that one of ordinary skill in the art would have been motivated to make this modification in order to notify the driver of events relating to the cell phone (such as an incoming call) “without requiring the driver to take his/her hands off the steering wheel.” *Id.* at 48 (citing Ex. 1001, 1:16–17; Ex. 1022, 1, 11–12; Ex. 1002 ¶¶ 212–215).

In our Decision on Institution, we preliminarily determined that “this motivation falls short of sufficiently explaining why an indicator light would change the driver’s behavior in the stated manner.” Dec. on Inst. 30. Petitioner argues that this issue is moot in light of Patent Owner’s failure to address it. Pet. Reply at 31–32. We disagree; it is Petitioner’s burden to demonstrate unpatentability. *Dynamic Drinkware*, 800 F.3d at 1375.

Petitioner further argues that in our Decision on Institution, we overlooked Mr. Lanning’s analysis regarding this feature, the disclosure of Sakamoto, and the knowledge of one of ordinary skill in the art. Pet. Reply 32 (citing Ex. 1002 ¶¶ 212, 215–217; Pet. 17). Petitioner contends that Berry-351 describes a vehicle hands-free Bluetooth system with

speakerphone functionality, the combination of Berry-351 and Ayed teaches a hands-free profile or headset profile, and one of ordinary skill would have understood that Berry-351 provides speakerphone services for both incoming and outgoing calls. *Id.* at 30 (citing Ex. 1007, 5:9–29, Fig. 1; Ex. 1011, 11:12–15; Ex. 1002 ¶¶ 145, 213).

Patent Owner argues that because Berry-351 does not contain any disclosure of the receipt of an incoming call, one of ordinary skill would not have been motivated to combine any references to provide a notification of an incoming call. PO Resp. 36–37 (citing Ex. 2001 ¶ 46; Ex. 2003, 112:17–126:22).

Having reconsidered the issue based on the arguments and evidence of record, including Mr. Lanning’s discussion of Sakamoto’s teachings and the knowledge of one of ordinary skill in the art at the time of the invention, we are persuaded that a skilled artisan would have been motivated to combine Sakamoto’s teachings relating to incoming call notifications with the Berry-351 vehicle security system. Mr. Lanning describes that one of ordinary skill “would have been well aware that notifications are vital in vehicle applications” to notify drivers of events. *See* Ex. 1002 ¶¶ 214–215 (cited at Pet. 47). The lack of a description of incoming calls in Berry-351 might be dispositive if Sakamoto did not describe incoming calls being received by a mobile phone with an indication provided to a user. *See* Ex. 1012 ¶¶ 41–42. However, in light of this teaching in Sakamoto and Mr. Lanning’s testimony relating to the knowledge of one of ordinary skill regarding the utility of notifications in vehicle applications to reduce the risk of accidents (Ex. 1002 ¶¶ 214–215 (cited at Pet. 47)), we are persuaded that one of ordinary skill in the art would have combined Sakamoto’s indicator for incoming calls with Berry-351’s vehicle security system.

Based on our review of the evidence of record, Petitioner has shown that claims 8 and 21 are unpatentable as obvious over Berry-351, Ayed, Sakamoto, and Jang. In light of this conclusion, we need not, and do not, reach a determination on Petitioner's alternative assertion that claims 8 and 21 would have been obvious over Berry-351, Ayed, Sakamoto, and Forstall.

3. *Claims 13 and 26*

Claims 13 and 26 each add to the claims from which they depend (claims 12 and 17, respectively) that the operations or method further comprise “in response to an activation of [a/the] button [of the wireless security device], answering, by the telephony device, an incoming telephone call received by the telephony device,” and “in response to an activation of [a/the] button [of the wireless security device], answering, by the telephony device, an incoming telephone call received by the telephony device.”

Petitioner argues that the use of a button for accepting an incoming call or cancelling an incoming call in vehicle hands-free devices would be well known to one of ordinary skill in the art. Pet. 51–52 (citing, *inter alia*, Ex. 1002 ¶¶ 220, 224). Petitioner also cites Sakamoto's teaching regarding the use of a keypad to answer an incoming call and to terminate a call. *Id.* (citing Ex. 1012 ¶¶ 41–42).

Petitioner argues that one of ordinary skill would have added Sakamoto's keypad functionality to Berry-351 in order to allow the use of the phone functionality without requiring the driver to reach for the phone. Pet. 52–53 (citing, *inter alia*, Ex. 1002 ¶ 225).

Other than the arguments presented with respect to the claims from which claims 13 and 26 depend, Patent Owner presents no arguments relating to these claims.

Based on our review of the evidence of record, Petitioner has shown that claims 13 and 26 are unpatentable as obvious over Berry-351, Ayed, Sakamoto, and Jang. In light of this conclusion, we need not, and do not, reach a determination on Petitioner's alternative assertion that claims 13 and 26 would have been obvious over Berry-351, Ayed, Sakamoto, and Forstall.

*F. Alleged Obviousness of Claims 10 and 23
over Berry-351, Ayed, Turner, and Forstall or Jang*

Petitioner argues that claims 10 and 23 would have been obvious over a combination of Berry-351, Ayed, Turner, and Forstall or Jang. Pet. 56–65.

1. Overview of Turner (Ex. 1016)

Turner relates to an electronic locator system, with a caregiver and children each wearing a watch-style device including a transceiver. Ex. 1016, code (57). When one or more child units goes outside of a certain range, the caregiver unit provides an audio or vibrational alarm and a visual indicator of the situation. *Id.* ¶ 23. The caregiver unit contains visual indicators to show which of the children has gone out of range of the caregiver unit. *Id.* ¶¶ 23, 55.

2. Claims 10 and 23

Claims 10 and 22 each add to the claims from which they depend (claims 9 and 17, respectively) that the operations or method further comprise “if more than one Bluetooth enabled devices are paired with the wireless security device, generating a unique out-of-range notification for each Bluetooth enabled device.”

Petitioner refers to its assertions made with respect to claims 9 and 22 for the proposition that the combination of Berry-351 and Ayed teaches the generation of out-of-range notifications. Pet. 57; *see supra* § III.D.7. Petitioner further cites Turner's teaching regarding out-of-range visual

indicators unique to different devices. Pet. 58 (citing Ex. 1016 ¶ 55, Fig. 1B).

Petitioner argues that one of ordinary skill would have added Turner's device-specific indicators to Berry-351/Ayed to inform the user of the vehicle system which cell phone has gone out of range in order to take action in response and prevent loss of the cell phone. *Id.* at 56–57 (citing Ex. 1011, Fig. 3A (including the step of activating a “loss prevention alarm”), code (57)).

Other than the arguments presented with respect to claims from which claims 10 and 23 depend, Patent Owner presents no arguments relating to these claims.

Based on our review of the evidence of record, Petitioner has shown that claims 10 and 23 are unpatentable as obvious over Berry-351, Ayed, Turner, and Jang. In light of this conclusion, we need not, and do not, reach a determination on Petitioner's alternative assertion that claims 10 and 23 would have been obvious over Berry-351, Ayed, Turner, and Forstall.

*G. Alleged Obviousness of Claim 24
over Berry-351, Ayed, Schlager, and Forstall or Jang*

Petitioner argues that claim 24 would have been obvious over a combination of Berry-351, Ayed, Schlager, and Forstall or Jang. Pet. 58–63.

1. Overview of Schlager (Ex. 1019)

Schlager relates to a personal alarm system and one or more remote sensing units in two-way communication. Ex. 1019, code (57). “Received field strength is measured to determine whether a remote unit has moved beyond a predetermined distance from the base station.” *Id.* at code (57), 5:38–56. Schlager's base station includes an alarm activated if a remote unit is out of range. *Id.* at 6:9–14. Schlager also includes an embodiment in

which the remote sensing unit provides a warning at the remote sensing unit if the remote sensing unit's location is in a specific area or outside of a given area. *Id.* at 6:9–15, 14:13–27, Fig. 16.

2. Claim 24

Claim 24 adds to the method of claim 17 the steps of
executing, by the telephony device, software instructions
configured to generate an out-of-range notification; and
generating, by the telephony device, an out-of-range
notification when a measurement of a quality parameter
of the Bluetooth wireless connection indicates the quality
parameter of the Bluetooth wireless connection is outside
a predetermined quality threshold, the notification
comprising generating an audible sound through a
speaker of the telephony device.

Petitioner refers to its assertions made with respect to claims 9 and 22 for the proposition that the combination of Berry-351 and Ayed teaches the generation out-of-range notifications. Pet. 61; *see supra* § III.D.7. Petitioner further refers to assertions made regarding element [d.i] of claim 1 relating to Berry-351's teachings regarding a vehicle system sending commands to a paired cell phone. Pet. 61 (citing Ex. 1007, 2:6–43, 7:5–30; Ex. 1002 ¶ 251).

Petitioner argues that Schlager discloses that if a device is out of range of a base station, the base station alarm or the remote wireless device alarm may be activated. *Id.* at 61–62 (citing Ex. 1007, 6:9–15; quoting without citation Ex. 1007, 13:65–67). Petitioner further argues that one of ordinary skill would have been motivated to add the Schlager activation of an alarm on the remote device to the Berry-351/Ayed combination to increase the possibility that the users would see the notification, including, for example,

in cases where a passenger leaves a vehicle with a connected device. *Id.* at 60 (citing Ex. 1002 ¶¶ 243–249; referencing Pet. 56–57).

With reference to the generation of an out-of-range notification when a measurement of a quality parameter of the connection is outside a predetermined threshold, Petitioner cites arguments relating to a vehicle security system generating such a notification, arguing that one of ordinary skill would have found it obvious for both the wireless security device and cell phone to generate such a notification. *Id.* at 63 (citing Ex. ¶¶ 255–256). Finally, with respect to the notification being an audible sound through a speaker of the telephony device, Petitioner argues that one of ordinary skill in the art would have been motivated by Schlager to modify the Berry-351/Ayed system, which would include an audible notification through the vehicle system speaker, as taught by Ayed, to add a notification through the speaker of a connected cell phone in order to increase the likelihood that the notification would be effective. *Id.* at 63–64 (citing Ex. 1002 ¶¶ 257–258).

Other than the arguments presented with respect to claim 17, Patent Owner presents no arguments relating to this claim.

Based on our review of the evidence of record, Petitioner has shown that claim 24 is unpatentable as obvious over Berry-351, Ayed, Schlager, and Jang. In light of this conclusion, we need not, and do not, reach a determination on Petitioner’s alternative assertion that claim 24 would have been obvious over Berry-351, Ayed, Schlager, and Forstall.

H. Petitioner’s Additional Challenges

Petitioner also presents additional challenges: that claims 7, 9, 11, 14, 15, 22, 25, 27, and 28 would have been obvious over a combination of Berry-145, Kim, and either Forstall or Jang (Pet. 64–77); that claims 8, 13,

21, and 26 would have been obvious over a combination of Berry-145, Ayed, Sakamoto, and Forstall or Jang (*id.* at 78); that claims 10 and 23 would have been obvious over a combination of Berry-145, Ayed, Turner, and Forstall or Jang (*id.* at 78–79); and that claim 24 would have been obvious over Berry-351, Ayed, Schlager, and Forstall or Jang (*id.* at 79). Because the challenges based on Berry-351, discussed above, are dispositive of all the challenged claims, we need not reach these other challenges as to these same claims. *See SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1359 (2018) (holding that a petitioner “is entitled to a final written decision addressing all of the claims it has challenged”).

III. CONCLUSION⁸

In summary:

Claims	35 U.S.C. §	Reference(s)/Bas is	Claims Shown Unpatentable	Claims Not Shown Unpatentable
7, 9, 11, 14, 15, 22, 25, 27, 28	103	Berry-351, Ayed, Forstall ⁹		
7, 9, 11, 14, 15, 22, 25, 27, 28	103	Berry-351, Ayed, Jang	7, 9, 11, 14, 15, 22, 25, 27, 28	

⁸ 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).

⁹ As explained above, we do not reach certain of these grounds because the challenges based on Berry-351 and Jang, in combination with other references, are dispositive of all the challenged claims. *See SAS*, 138 S. Ct. at 1359.

8, 13, 21, 26	103	Berry-351, Ayed, Sakamoto, Forstall		
8, 13, 21, 26	103	Berry-351, Ayed, Sakamoto, Jang	8, 13, 21, 26	
10, 23	103	Berry-351, Ayed, Turner, Forstall		
10, 23	103	Berry-351, Ayed, Turner, Jang	10, 23	
24	103	Berry-351, Ayed, Schlager, Forstall		
24	103	Berry-351, Ayed, Schlager, Jang	24	
7, 9, 11, 14, 15, 22, 25, 27, 28	103	Berry-145, Ayed, Forstall		
7, 9, 11, 14, 15, 22, 25, 27, 28	103	Berry-145, Ayed, Jang		
8, 13, 21, 26	103	Berry-145, Ayed, Sakamoto, Forstall		
8, 13, 21, 26	103	Berry-145, Ayed, Sakamoto, Jang		
10, 23	103	Berry-145, Ayed, Turner, Forstall		
10, 23	103	Berry-145, Ayed, Turner, Jang		
24	103	Berry-145, Ayed, Schlager, Forstall		
24	103	Berry-145, Ayed, Schlager, Jang		
Overall Outcome			7–11, 13–15, 21–28	

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 7–11, 13–15, and 21–28 of the '895 patent have been proven to be unpatentable;

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

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