

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

VOLKSWAGEN GROUP OF AMERICA, INC., and
HYUNDAI MOTOR AMERICA,
Petitioner,

v.

STRATOSAUDIO, INC.,
Patent Owner

IPR2021-00720
Patent 9,355,405 B2

Before JUSTIN T. ARBES, HYUN J. JUNG, and
KEVIN C. TROCK, *Administrative Patent Judges*.

TROCK, *Administrative Patent Judge*.

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

I. INTRODUCTION

We have authority to hear this *inter partes* review under 35 U.S.C. § 6. This Final Written Decision issues pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons discussed herein, we determine that Volkswagen Group of America, Inc. and Hyundai Motor America (“Petitioner”) have shown by a preponderance of the evidence that claims 12–16 (the “challenged claims”) of U.S. Patent No. 9,355,405 B2 (Ex. 1001, “the ’405 Patent”) are unpatentable. *See* 35 U.S.C. § 316(e) (2018); 37 C.F.R. § 42.1(d) (2019).

A. Procedural History

The Petition (Paper 1, “Pet.”) requested *inter partes* review of the challenged claims of the ’405 Patent. Patent Owner, StratosAudio, Inc., filed a Preliminary Response. Paper 6. Pursuant to an Order, Paper 11, Petitioner filed a Preliminary Reply, Paper 12, and Patent Owner filed a Preliminary Sur-reply, Paper 14, to address issues raised in Patent Owner’s Preliminary Response. Based upon the record at that time, we instituted *inter partes* review on all challenged claims on the grounds presented in the Petition. Paper 16 (“Institution Decision” or “Dec.”).

After institution, Patent Owner filed a Response, Paper 29 (“PO Response”), Petitioner filed a Reply, Paper 34 (“Pet. Reply”), and Patent Owner filed a Sur-reply, Paper 38 (“PO Sur-reply”).

On June 2, 2022, we granted a Motion for Joinder with IPR2021-00720 filed by Hyundai Motor America, Mazda Motor of America, Inc., Subaru of America, Inc., and Volvo Car USA, LLC in IPR2022-00224. *See* Paper 39. Pursuant to that Order, Hyundai Motor America, Mazda Motor of America, Inc., Subaru of America, Inc., and Volvo Car USA, LLC maintained a secondary role in this proceeding.

On July 22, 2022, an oral hearing was held. A transcript of the hearing is made part of the record. *See* Paper 51.

On July 29, 2022, we issued an Order, Paper 48, terminating Mazda Motor of America, Inc. from this proceeding due to a settlement.

On September 29, 2022, we issued an Order, Paper 55, terminating Volvo Car USA, LLC from this proceeding due to a settlement.

Concurrently with this Final Written Decision we are issuing an order terminating Subaru of America, Inc., from this proceeding due to a settlement.

B. Related Matters

The parties identify the following as related matters:

- *StratosAudio, Inc. v. Hyundai Motor America*, No. 20-cv-01125-ADA (W.D. Tex.);
- *StratosAudio, Inc. v. Mazda Motor of America, Inc.*, No. 20-cv-01126-ADA (W.D. Tex.).
- *StratosAudio, Inc. v. Subaru of America, Inc.*, No. 20-cv-01128-ADA (W.D. Tex.).
- *StratosAudio, Inc. v. Volvo Cars USA, LLC*, No. 20-cv-01129-ADA (W.D. Tex.).
- *StratosAudio, Inc. v. Volkswagen Group of America, Inc.*, No. 6:20-cv-1131 (W.D. Tex.);¹

Pet. 1; Paper 4, 1.

¹ Patent Owner identifies this proceeding as *StratosAudio, Inc. v. Volkswagen Group of America, Inc.*, No. 20-cv-01127-ADA (W.D. Tex.). Paper 4, 1. The correct case number appears to be 6:20-cv-1131-ADA. Ex. 2006, 1.

C. The '405 Patent

The '405 Patent relates to media advertising and associating an advertising media signal with another media signal. Ex. 1001, 1:24–26. The '405 Patent explains that it is generally desirable to associate products with specific characteristics and such associations may increase the chance that a potential customer will decide to purchase a product when the product is associated with a favorable characteristic. *Id.* at 1:28–36. In view of this, the '405 Patent states that an advertisement may be more effective if it is associated with an image of a celebrity or another media element that exhibits favorable characteristics. *Id.* at 1:36–40.

The '405 Patent describes a media enhancement system that is configured to associate a secondary media signal (e.g., an advertisement) to a primary media signal (e.g., a radio broadcast). *Id.* at 3:15–19. The '405 Patent explains that the secondary media signal may be based on the content of the primary media, user characteristics (e.g., demographic and/or geographic information), and/or third party preferences (e.g., the goals of advertisers). *Id.* at 3:23–27.

The '405 Patent provides an example in which a radio station transmits a song in a first media signal that is received by a user enabled-device (e.g., a cellular phone with a radio). *Id.* at 3:33–36. A media association system analyzes the song to determine what media elements can be associated with the song and the media association system provides a second media signal (e.g., an advertisement) to the user enabled-device. *Id.* at 3:36–42. While the user enabled-device is playing the song, the user enabled-device displays the media content in the second media signal (e.g., a still or moving picture of the advertised product). *Id.* at 3:43–46. The '405 Patent provides another example in which a user enabled-device is playing a

song from a first media signal, media content from a second media signal (e.g., a still or moving picture with selectable audio of an advertised product) is displayed by the user enabled-device, and the audio track for the first media signal is paused upon selection of the second media signal audio. *Id.* at 3:47–53.

Figure 1A of the '405 Patent is reproduced below.

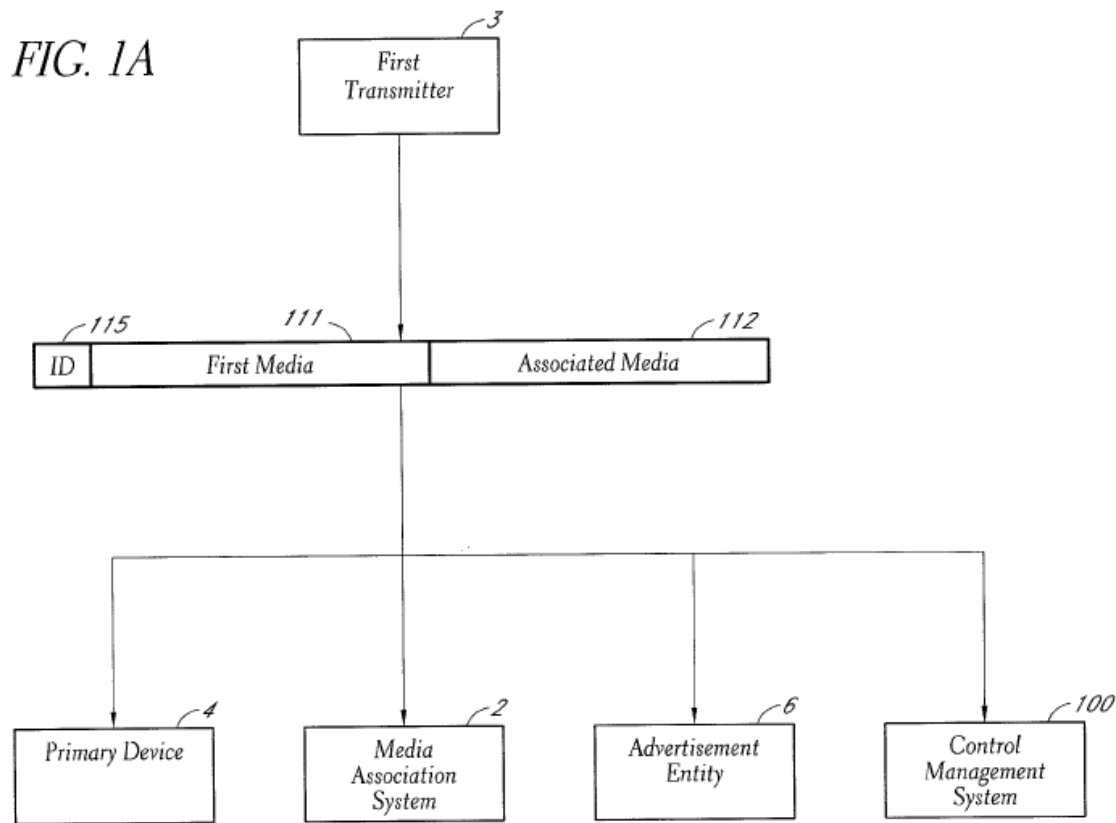


Figure 1A, shown above, is a block diagram depicting signals and identifiers correlated and transmitted between elements of a media enhancement system. *Id.* at 2:48–50. The system can include first transmitter 3, control management system 100, media association system 2, primary device 4, and advertisement entity 6. *Id.* at 8:17–22. First transmitter 3 can be broadcast content from a radio station, from over the internet, through a cable line or satellite, and/or through other

communication methods. *Id.* at 8:23–30. For instance, first transmitter 3 can send a first media signal 111 that is received by primary device 4. *Id.* at 8:47–49.

Figure 1B of the '405 Patent is reproduced below.

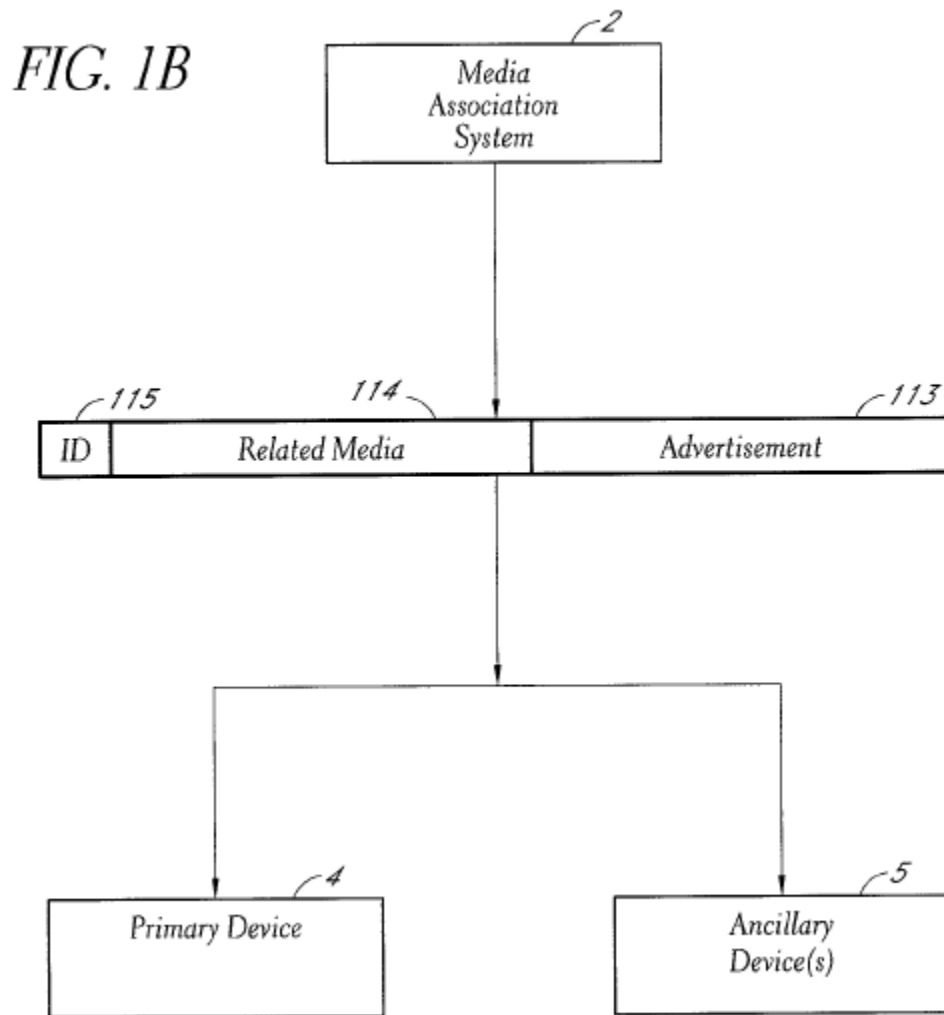


Figure 1B, shown above, is a block diagram showing media association system 2 can receive and/or identify the media content in first media signal 111 and use this information to send or transmit secondary or related media signal 114, such as information regarding the media content of first media signal 111 to primary device 4. *Id.* at 9:41–44, 9:46–55.

Advertisement entity can send advertisement signal 113 to media association system 2 so advertisement signal 113 is provided to primary device 4 upon the latter receiving a specific song from first transmitter 3 via first media signal 111. *Id.* at 10:31–36.

The '405 Patent explains that unique identifier 115 can be provided for each media signal (i.e., first media signal 111 and advertisement media signal 113) to facilitate the assignment and/or sending of advertisement media signal 113 with first media signal 111. *Id.* at 13:6–9. According to the '405 Patent, unique identifier 115 can be stored in a database and/or other location, such as control management system 100, along with other relevant information. *Id.* at 13:20–22. The '405 Patent discloses that unique identifier 115 can be used by media association system 2, advertisement entity 6, first transmitter 3, and/or primary device 4 and/or control management system 100 to track and/or record the results of any signal and to determine whether the signal should be provided to primary device 4 and/or the user. *Id.* at 13:23–29.

Figure 3 of the '405 Patent is reproduced below.

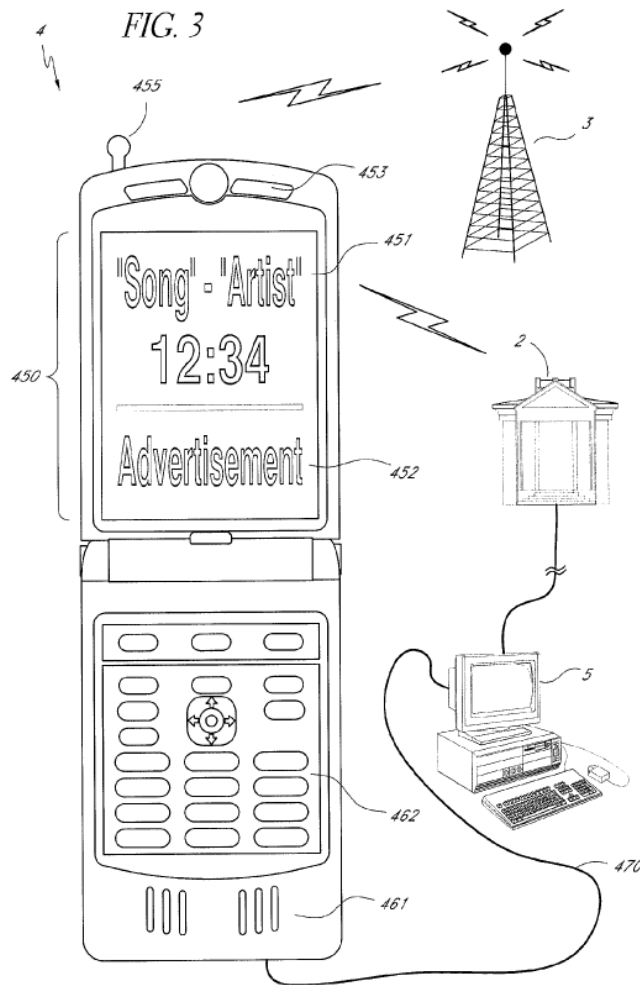


Figure 3, shown above, is an illustration depicting primary device 4, such as a radio-enabled cellular phone, with display panel 450 that is connected to media association system 2. *Id.* at 2:57–58, 19:1–3, 19:25–27, 19:31. Primary device 4 receives first media signal 111 (not shown in Fig. 3) via receiver 455 and/or wire data connection 470. *Id.* at 19:3–5. First media signal 111 includes, for example, a radio program that primary device 4 can play to a user via speaker 453. *Id.* at 19:7–9. Display panel 450 can show information relating to the radio program being played. *Id.* at 19:27–29. For instance, upper portion 451 of the display panel can include textual information corresponding to the radio's music. *Id.* at 19:31–

36. The information about the radio's music may be obtained from a Radio Broadcast Data System (RBDS) and/or Radio Data System (RDS) signal accompanying first media signal 111 when the latter is in the form of a radio signal. *Id.* at 25:9–11. Lower panel 452 displays advertisement media signal 113 (not shown in Fig. 3), which may comprise any form of media content. *Id.* at 12:47–49, 19:59–60.

Primary device 4 can also send signals to transmitter 3, media association system 2, control management system 100, and/or advertisement entity 6. *Id.* at 15:18–21. For example, the signals from primary device 4 can be responses to interactive media signals. *Id.* at 15:21–23. Primary device 4 can transmit user behavior, can report location, direction of motion, and/or speed, and can detect other information about a user and/or the user's location and/or environment. *Id.* at 15:29–36. The '405 Patent explains that this information can be used by media association system 2 to determine what media and/or advertisements to send to primary device 4 to obtain a user's reaction and/or what media and/or advertisements are likely to elicit a positive reaction at a given time and/or when the user is in a given state or environment. *Id.* at 15:36–43.

D. Challenged Claims

Petitioner challenges claims 12–16. Claim 12 is the only independent claim challenged. Claim 12 is set out below:

- 12[pre] A method for combining multiple media obtained from a broadcast stream, the method comprising:
- 12[a] receiving, using an electronic receiving device, at least a first media content from a broadcast stream;
 - 12[b] receiving, using the electronic receiving device, at least a second media content,
 - 12[c] the second media content received discretely from the first media content;
 - 12[d] determining uniquely identifying data specific to at least the second media content;
 - 12[e] determining a location of the electronic receiving device utilizing at least one of the following to determine the location of the electronic receiving device: a GPS system, a triangulation system, a geographic location system;
 - 12[f] presenting concurrently the first media content and the second media content using an electronic output device;
 - 12[g] detecting at least a response input responsive to the second media content; and
 - 12[h] transmitting electronically to a computer server a response message comprising at least the uniquely identifying data specific to at least the second media content and the location of the electronic receiving device.

Ex. 1001, 36:12–32 (reproduced with added labelling with “12” and bracketing as designated by Petitioner; *see* Pet. 21–46).

E. Evidence

Petitioner relies upon the following evidence:

- (1) U.S. Patent No. US 6,374,177 B1, issued April 16, 2002 (“Lee”) (Ex. 1004);
- (2) U.S. Patent Application Publication No. 2003/0220835 A1, published November 27, 2003 (“Barnes”) (Ex. 1005);

(3) *United States RBDS Standard*, Radio Broadcast Data System (RBDS) Subcommittee of the National Radio Systems Committee (NRSC) (Apr. 9, 1998) (“RBDS Standard”) (Ex. 1006); and

(4) Declarations of Tim Williams, Ph.D. (Exs. 1003, 1017).

Patent Owner relies on the declaration of Todd Moon, Ph.D. (Ex. 2019).

F. Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability:

Reference(s)	Basis	Claims Challenged
Lee	§ 102(b)	12–16
Lee	§ 103(a)	12–16
Barnes	§ 102(b)	12, 15, 16
Barnes	§ 103(a)	12, 15, 16
Barnes, RBDS Standard	§ 103(a)	13, 14

II. ANALYSIS

A. Level of Ordinary Skill in the Art

Whether a reference anticipates is assessed from the perspective of an ordinarily skilled artisan. *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1336 (Fed. Cir. 2008) (“[T]he meaning of a prior art reference requires analysis of the understanding of an artisan of ordinary skill.”). In determining the level of skill in the art, we consider the type of problems encountered in the art, the prior art solutions to those problems, the rapidity with which innovations are made, the sophistication of the technology, and the educational level of active workers in the field. *Custom Accessories, Inc.*

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v. Jeffrey-Allan Indus. Inc., 807 F.2d 955, 962 (Fed. Cir. 1986); *Orthopedic Equip. Co. v. U.S.*, 702 F.2d 1005, 1011 (Fed. Cir. 1983).

Petitioner contends that “a person of ordinary skill in the art (‘POSITA’) would have had at least a B.S. in computer science or electrical engineering or a related field, and approximately three years of experience working in the communications- or Internet-related industries” and that this is approximate because “a higher education or skill level might make up for less experience, and vice-versa; for example, a POSITA could have a master’s degree with no industry experience.” Pet. 7 (citing Ex. 1003 ¶ 34). Patent Owner does not object to the level of skill proposed by Petitioner. PO Resp. 18.

Petitioner’s description of the level of ordinary skill is generally consistent with the subject matter of the ’405 patent. We agree with Petitioner’s description with the exception of the qualifier “at least” to keep the description from extending to a level beyond that of ordinary skill.

Accordingly, for purposes of this Final Written Decision, a person of ordinary skill in the art is a person with a bachelor’s degree in computer science or electrical engineering or a related field, and approximately three years of experience working in the communications or Internet-related industries, or other equivalent industry experience in the field. A person with a master’s degree in one of these fields with less industry experience would also qualify as a person of ordinary skill in the art.

B. Claim Construction

Pursuant to 37 C.F.R. § 42.100(b), we apply the claim construction standard as set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). Under *Phillips*, claim terms are generally given their ordinary and customary meaning as would be understood by one with

ordinary skill in the art in the context of the specification, the prosecution history, other claims, and even extrinsic evidence including expert and inventor testimony, dictionaries, and learned treatises, although extrinsic evidence is less significant than the intrinsic record. *Phillips*, 415 F.3d at 1312–17. Usually, the specification is dispositive, and it is the single best guide to the meaning of a disputed term. *Id.* at 1315.

Only terms that are in controversy need to be construed, and then only to the extent necessary to resolve the controversy. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (in the context of an *inter partes* review, applying *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

1. “media content”

The term “media content” appears in claims 12–16. Pet. 8. Petitioner asserts that the ’405 patent defines “media content” as:

[a] broad term[] that comprise[s] any form of content, including without limitation, graphics, videos, sounds, text, text messages, interactive applications, vibrations, television and/or radio programming, podcasts, movies, songs, games, telephone conversations, speeches, news, information, advertisements, polls votes, personal messages, and/or other physical manifestations capable of communicating a concept or idea.

Id. (quoting Ex. 1001, 5:28–35). Petitioner’s declarant, Dr. Williams, supports this view. *See* Ex. 1003 ¶¶ 40–41. Patent Owner does not dispute Petitioner’s proposed construction. PO Resp. 18.

While the ’405 patent does not provide a strict definition for the term “media content,” the specification does state that “the terms ‘media’ or ‘media content’ are broad terms that comprise any form of content.” Ex. 1001, 5:28–29. The ’405 patent also provides a number of different examples of media or media content, such as “graphics, videos, sounds, text,

text messages . . . television and/or radio programming, podcasts, movies, songs, games, telephone conversations, speeches, news, information, advertisements, polls votes, [and] personal messages.” *Id.* at 5:30–35.

For purposes of this Decision, we do not find it necessary to expressly construe the term “media content.” *See Vivid Techs.*, 200 F.3d at 803 (holding that only terms that are in controversy need to be construed, and “only to the extent necessary to resolve the controversy”). To the extent that the determination of the meaning of this claim term is necessary, we use its ordinary and customary meaning.

2. “*presenting . . . media content*”

Petitioner argues the term “presenting . . . media content,” which appears in claim 12, “should be construed to mean ‘providing an output, related to a media content, that can be sensed by the user,’ for example, display, audio, and vibration.” Pet. 9 (citing Ex. 1001, 5:29–35, 5:42–46, 19:1–20:3; Ex. 1003 ¶¶ 43–46). Patent Owner does not dispute Petitioner’s proposed construction. PO Resp. 19.

Petitioner points out that the ’405 patent explains that media content can be presented in various ways. The ’405 patent states that “the terms ‘display,’ ‘present,’ their synonyms, and their alternative conjugations should be used interchangeably and be broadly interpreted as providing media to be sensed by the user.” Pet. 9 (citing Ex. 1001, 5:42–46; Ex. 1003 ¶ 44).

Petitioner also points out that the ’405 patent explains that media content “need not be presented through the display panel, but could alternatively be presented through the speaker, a vibration system, and/or any other primary device output.” *Id.* (citing Ex. 1001, 19:66–20:3; *see also id.* at 19:1–66; Ex. 1003 ¶ 45).

For purposes of this Decision, we do not find it necessary to expressly construe the term “presenting . . . media content.” To the extent that the determination of the meaning of this claim term is necessary, we use its ordinary and customary meaning.

C. Patentability Challenges

As indicated above, Petitioner presents five grounds challenging the patentability of particular claims of the ’405 patent under 35 U.S.C.

§§ 102, 103. Petitioner challenges (1) claims 12–16 as anticipated by Lee, (2) claims 12–16 as obvious over Lee, (3) claims 12, 15, and 16 as anticipated by Barnes, (4) claims 12, 15, and 16 as obvious over Barnes, and (5) claims 13 and 14 as obvious over the combined teachings of Barnes and RBDS Standard. Pet. 3.

1. Principles of Law on Anticipation

To anticipate a claim under 35 U.S.C. § 102, “a single prior art reference must expressly or inherently disclose each claim limitation.” *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1334 (Fed. Cir. 2008). Accordingly, “the dispositive question regarding anticipation [i]s whether *one skilled in the art* would reasonably understand or infer from the [prior art reference’s] teaching” that every claim element was disclosed in that single reference. *Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 1368 (Fed. Cir. 2003).

2. Relevant Prior Art

a. Lee (Ex. 1004)

Lee is a U.S. Patent that issued on April 16, 2002, more than one year before the earliest priority date of the ’405 patent. Ex. 1001, code (60), (63);

Ex. 1004, code (45). Petitioner asserts that Lee is prior art under pre-AIA 35 U.S.C. § 102(b). Pet. 10.

Lee relates to an internet radio such as for providing navigational services to a user in an automobile via a wireless communication device. Ex. 1004, code (57). Lee discloses that customized information is also communicated to the radio, such as stock quotes, travel information, advertising, and email. *Id.*

Figure 1 of Lee is reproduced below.

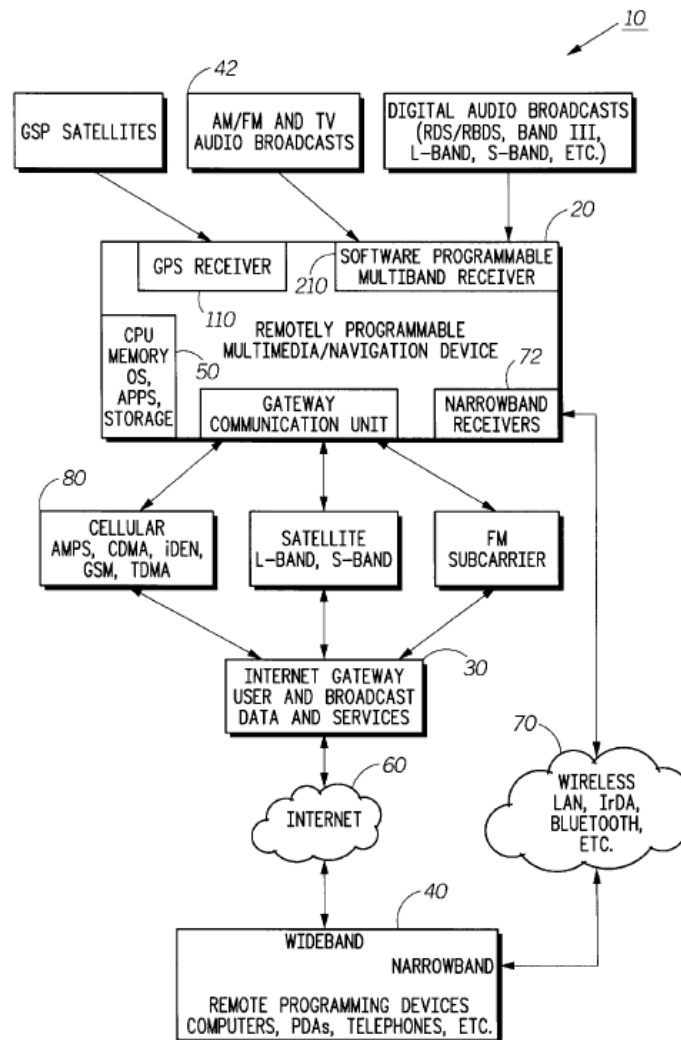


FIG. 1

Lee's Figure 1, shown above, depicts a block diagram of a computer controlled multimedia entertainment and information system 10. *Id.* at 5:31, 5:44–47. System 10 includes microcomputer controlled multimedia device 20 in a vehicle with a wireless IP address for Internet access and Internet gateway network 30 that provides programming, information, and Internet access to multimedia device 20 and one or more remote programming devices 40. *Id.* at 5:52–59. Multimedia device 20 includes computer 50, storage devices 92 to contain and run an operating system, and applications to control and communicate with onboard receivers. *Id.* at 8:26–30. Lee describes the receivers as multi-band AM, FM, TV audio, and digital audio broadcast receiver 100; GPS receiver 110 that continuously reports the vehicle's longitude, latitude, and altitude; one or more high-speed, narrow band wireless transceivers 120 for fast transmission and reception of large amounts of data from accommodated devices; and wide band wireless Internet addressable gateway transceiver 130. *Id.* at 8:30–41.

Lee discloses that Internet gateway 30 maintains a database management system to control system databases, such as a broadcaster relational database that contains information about AM, FM, and TV analog audio broadcasts that can be received within a host nation. *Id.* at 11:1–8. Lee further describes advertising databases that provide information about advertisements that are inserted into real-time radio broadcasts and into digital personalized broadcasts. *Id.* at 11:16–19. In addition, user profile databases contain information about a user's system preferences, billing information, and a purchasing interest profile. *Id.* at 11:34–36. Lee explains that information in advertising databases can be compared with a user's purchasing interest profile so advertisements inserted into personalized digital broadcasts mesh with the user's buying interests. *Id.* at 11:36–41.

Figure 2 of Lee is reproduced below.

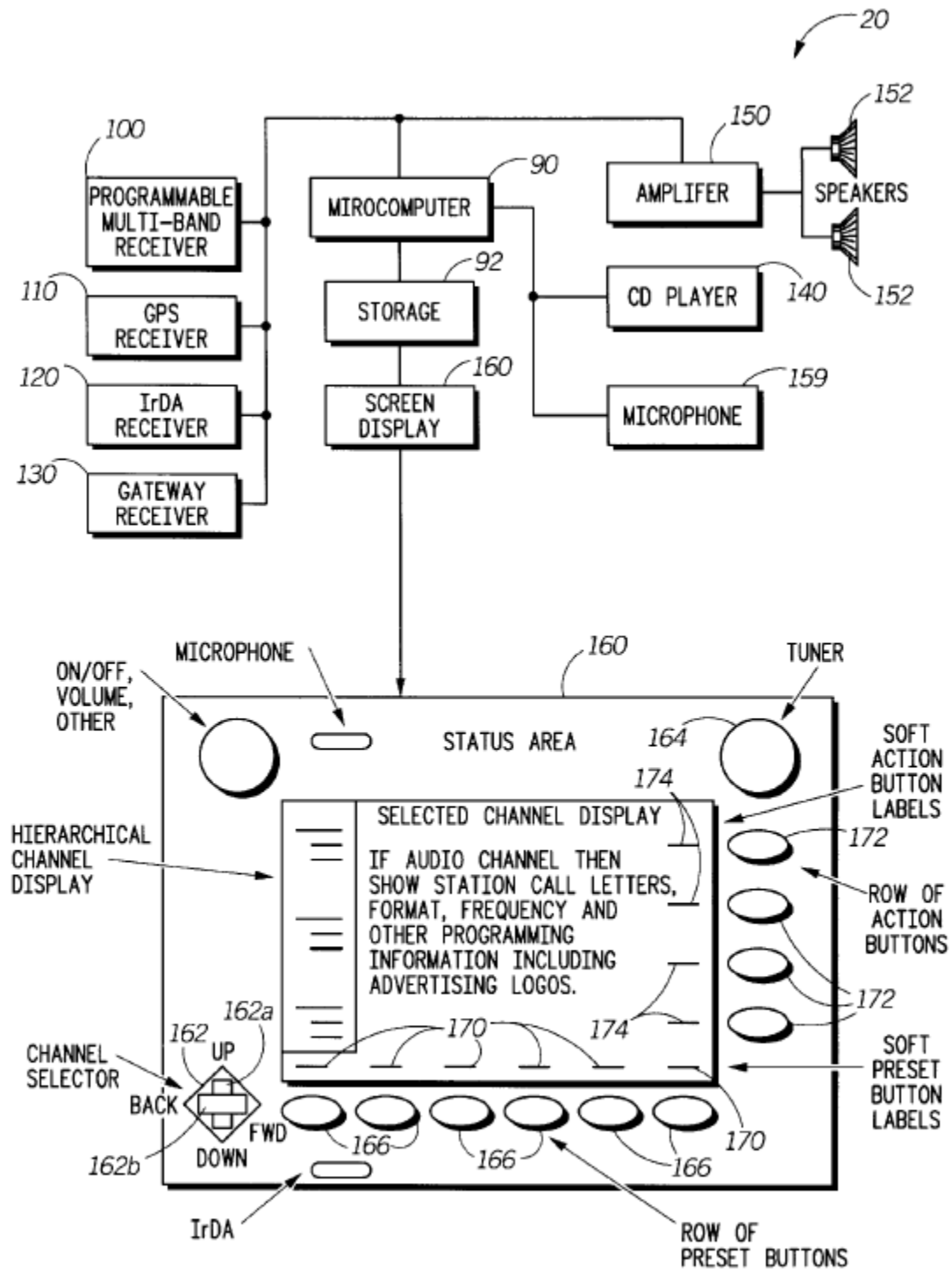


FIG. 2

Lee's Figure 2, shown above, shows a block diagram of multimedia device 20. *Id.* at 5:32–33. Lee discloses that multimedia device 20 includes industry standard amplifier 150 and speakers to output sound. *Id.* at 8:47–48. Multimedia device 20 further includes a LCD, LED, or similar suitable display screen 160 to present information to a user and to control multimedia device 20. *Id.* at 8:62–65. For instance, action buttons 172 can be used to save information on something that is being broadcast, to call a phone number from an advertisement, to navigate to an address from an electronic address book, or to purchase an item currently being advertised. *Id.* at 10:24–29.

In one of Lee's embodiments, a user can press a "BUY" or "INFO" button on multimedia device 20 when they wish to purchase a product or obtain more information about a product. *Id.* at 11:19–23. This transmits the location of the user's vehicle to Internet gateway 30, the date and time of the button press, and the channel selected. *Id.* at 11:23–26. The advertised item is then found in the advertising database and the user is charged for the item's delivery or information about the product is sent to the user. *Id.* at 11:26–28. Lee also describes a user obtaining map locations and navigation guidance for locations related to recent advertisements via Internet gateway 30 and the advertising database. *Id.* at 11:52–62.

D. Anticipation by Lee

Petitioner asserts claims 12–16 are anticipated by Lee under 35 U.S.C. § 102(b). Pet. 21–53. Claim 12 is the only independent claim of the challenged claims.

1. Independent Claim 12

- i. 12[pre] A method for combining multiple media obtained from a broadcast stream, the method comprising:*

Petitioner asserts that “Lee discloses a ‘multimedia device 20,’ for use in a ‘vehicle 184.’” Pet. 21 (citing Ex. 1004, 5:60–6:20; Ex. 1003 ¶ 75). According to Petitioner, Lee’s multimedia device 20 “combines ‘audio broadcasts,’ such as ‘AM, FM, TV, digital, Internet audio broadcasts,’ (and data about the audio broadcasts) with ‘advertisement’ data obtained from ‘Internet gateway network 30.’” *Id.* (citing Ex. 1004, 5:60–6:20, 10:44–48; Ex. 1003 ¶ 76).

In particular, Petitioner argues that “Lee’s ‘multimedia device 20’ combines the ‘audio broadcasts,’ data about the audio broadcasts (*e.g.*, ‘station call letters, format, frequency, and other programming information’), and textual/graphical information representative of the ‘advertisements’ by presenting all of this media content concurrently, *e.g.*, by playing back the audio broadcast via ‘speakers 152’ and displaying on a ‘display screen 160’ the textual data about the audio broadcasts and the ‘advertising logos’ and ‘action button labels 174’ representative of the ‘advertisements.’” Pet. 22 (citing Ex. 1004, Fig. 2; Ex. 1003 ¶ 79).

Petitioner argues that “Lee’s ‘audio broadcasts,’ RDS/RBDS [Radio Broadcast Data System] data about the audio broadcasts, and graphical/textual representation of the ‘advertisements’ correspond to the claimed ‘multiple media obtained from a broadcast stream.’” Pet. 23 (citing Ex. 1003 ¶ 81). Petitioner’s evidence is supported by the testimony of Dr. Williams. *See* Ex. 1003 ¶¶ 74–82.

Patent Owner does not respond specifically to Petitioner’s arguments or evidence with respect to Lee’s disclosure of what is recited by the preamble of claim 12. *See* PO Resp. 37–44.

Based on the record, we are persuaded that Petitioner has demonstrated that Lee discloses “*a method for combining multiple media obtained from a broadcast stream*,” as recited in the preamble.²

ii. 12[a] receiving, using an electronic receiving device, at least a first media content from a broadcast stream

Petitioner asserts that “Lee discloses that ‘multimedia device 20’ includes a ‘multi-band AM, FM, TV audio and digital audio broadcast receiver 100,’ which receives ‘audio broadcasts’ such as ‘AM, FM, TV, digital, [and] Internet audio broadcasts.’” Pet. 24 (citing Ex. 1004, 8:25–32, 5:60–67; Ex. 1003 ¶ 84). Petitioner explains that “[t]he audio broadcasts include, for example, ‘music,’ ‘talk’ radio programs, and advertisements.” Pet. 24 (citing Ex. 1004, 9:18–20, 11:16–19, 6:9–20, Fig. 5; Ex. 1003 ¶ 84).

Petitioner argues that Lee’s multimedia device 20 “corresponds to the claimed ‘electronic receiving device,’ [that] performs the claimed step of ‘receiving . . . at least a first media content from a broadcast stream.’” Pet. 26 (citing Ex. 1003 ¶ 88). Petitioner argues that the “audio advertisement broadcasted by the radio station corresponds to the claimed ‘first media content from a broadcast stream.’” Pet. 26 (citing Ex. 1003 ¶ 89).

Petitioner’s evidence is supported by the testimony of Dr. Williams. *See* Ex. 1003 ¶¶ 84–89. Lee’s Figures 1 and 2 are shown below.

² Regardless of whether the preamble of claim 12 is limiting, Petitioner has shown that Lee satisfies the recitation in the preamble.

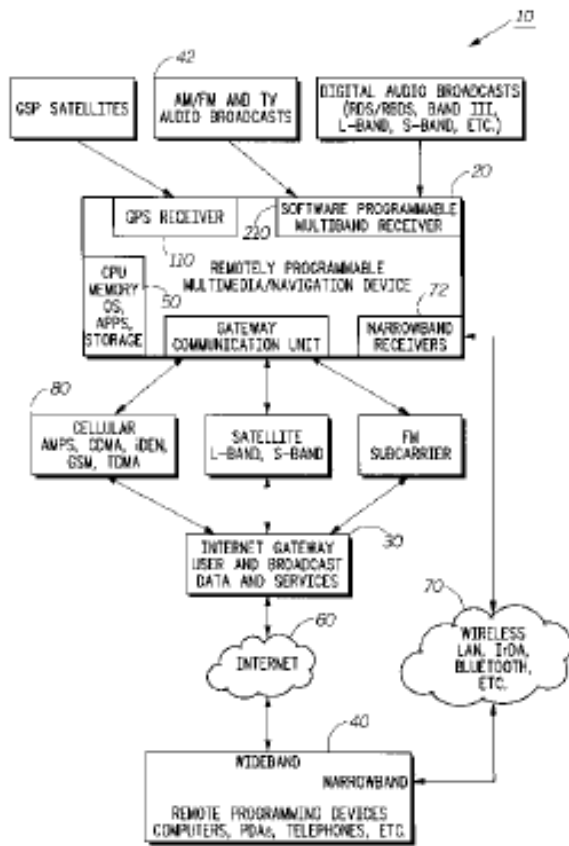


FIG. 1

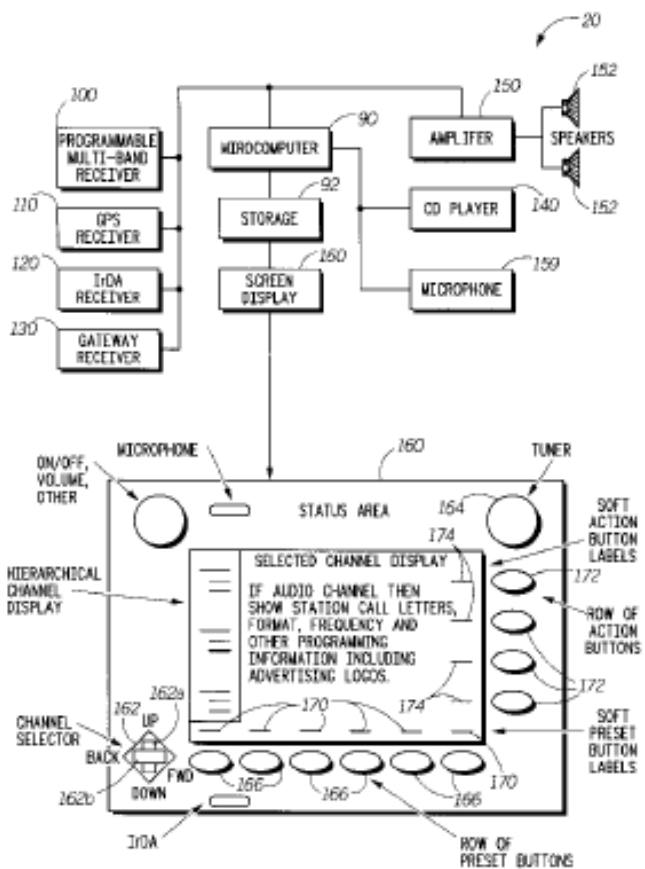


FIG. 2

Lee's Figure 1, above left, shows a block diagram of a system overview and Lee's Figure 2, above right, shows a block diagram of a vehicle multimedia receiver. Ex. 1004, 5:31–33. Dr. Williams explains that “Lee provides a block diagram of a system 10 (in which multimedia device 20 operates) in figure 1, and a block diagram of multimedia device 20 in figure 2.” Ex. 1003 ¶ 86. Dr. Williams explains that “Lee further discloses that ‘multimedia device 20’ receives information about the audio broadcast, such as ‘station call letters, format, frequency, and other programming information,’ Ex. 1004, Fig. 2, and that this information can be transmitted via ‘RDS/RBDS,’ Ex. 1004, Fig. 1 . . . or from ‘Internet gateway 30.’” Ex. 1003 ¶ 87 (citing Ex. 1004, 6:9–20).

Patent Owner does not respond specifically to Petitioner’s arguments or evidence with respect to this limitation. *See* PO Resp. 37–44.

Based on this record, including the testimony of Dr. Williams, which we credit, we are persuaded that Petitioner has demonstrated that Lee’s description of multimedia device 20 receiving an audio advertisement broadcast from a radio station discloses the recited limitation “*receiving, using an electronic receiving device, at least a first media content from a broadcast stream*” of claim 12.

iii. *12[b] receiving, using the electronic receiving device, at least a second media content*

Petitioner asserts that “Lee discloses that ‘Internet gateway network 30 is designed to transmit and receive critical information to and from a multimedia device 20 in the vehicle 184.’” Pet. 26 (citing Ex. 1004, 6:9–12). Petitioner argues that the “advertisement-related data sent by ‘Internet gateway 30’—represented by ‘action button labels’ and/or ‘advertising logos’ on the display of Lee’s ‘multimedia device 20’—correspond to the claimed ‘second media content.’” Pet. 29 (citing Ex. 1003 ¶ 96).

Petitioner further argues that “Lee’s ‘multimedia device 20,’ which corresponds to the claimed ‘electronic receiving device,’ performs the claimed step of ‘receiving . . . at least a second media content’; and the data related to the ‘advertisements’ correspond to the claimed ‘second media content.’” Pet. 29 (citing Ex. 1003 ¶ 97).

Petitioner’s evidence is supported by the testimony of Dr. Williams. *See* Ex. 1003 ¶¶ 90–97. Dr Williams testifies that

Lee discloses that “Internet gateway network 30 is designed to transmit and receive critical information to and from a multimedia device 20 in the vehicle 184” Ex. 1004 at 6:9–

12. Specifically, Lee explains that that “gateway 30 is designed to provide wireless Internet access to the multimedia device 20 in the vehicle 184, enhance regular audio broadcasts with extended information, and provide personalized broadcast information and applications to the vehicle 184.”

Id. ¶ 90 (citing Ex. 1004, 10:44–48). A portion of Lee’s Figure 2 is shown below.

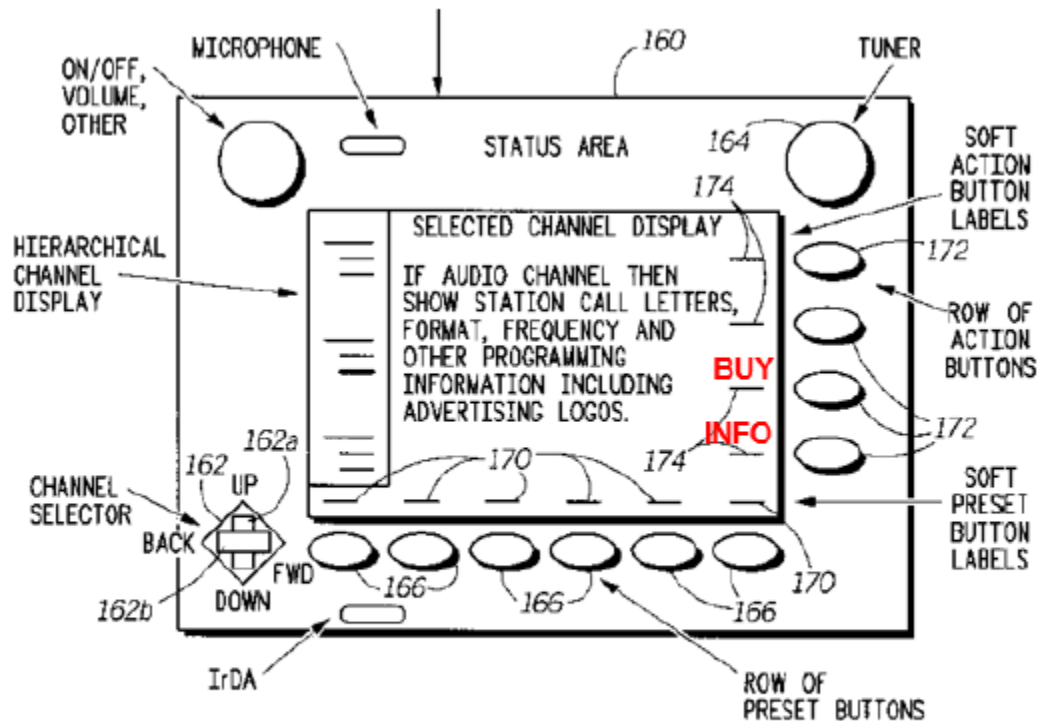


FIG. 2

The portion of Lee’s Figure 2, above, depicts vehicle multimedia receiver 160, displaying a series of soft action button labels 174, two of which are annotated by Petitioner in red as “BUY” and “INFO” buttons. Dr. Williams describes how “Lee explains that the information that ‘Internet Gateway 30’ sends to multimedia device 20 is represented by the appearance on the display screen of ‘action label buttons.’” Ex. 1003 ¶ 91.

Dr. Williams testifies that “data are sent by Lee’s ‘Internet gateway 30’

which inform the ‘multimedia device 20’ as to when (and what) ‘action button labels 174’ to display, so that the display screen is in sync with the audio broadcasts—such as displaying the ‘BUY’ action button label when a product is currently being advertised.” *Id.* ¶93 (emphasis omitted).

Dr. Williams further explains that in Lee, “[a]dvertising databases 196 provide information about advertisements (e.g., advertiser name, ad content, time of ad run, etc.) that are inserted into real-time radio broadcasts and into digital personalized broadcasts.” *Id.* ¶94 (citing Ex. 1004, 11:16–33).

Patent Owner does not respond specifically to Petitioner’s arguments or evidence with respect to this limitation. *See* PO Resp. 37–44.

Based on this record, including the testimony of Dr. Williams, which we credit, we are persuaded that Petitioner has demonstrated that Lee’s description of advertisement-related data sent by Internet gateway 30 to multimedia device 20 discloses the recited limitation “*receiving, using the electronic receiving device, at least a second media content*” of claim 12.

iv. 12[c] the second media content received discretely from the first media content

Petitioner asserts that “[t]he ‘discrete’ reception of these various media by Lee’s ‘multimedia device 20’—an audio advertisement broadcast by a radio station being received by ‘software programmable multiband receiver 210’ and various advertisement-related data from ‘Internet gateway 30’ being received by ‘Gateway Communication Unit’” is illustrated in Lee’s Figure 1, annotated by Petitioner below. Pet. 30.

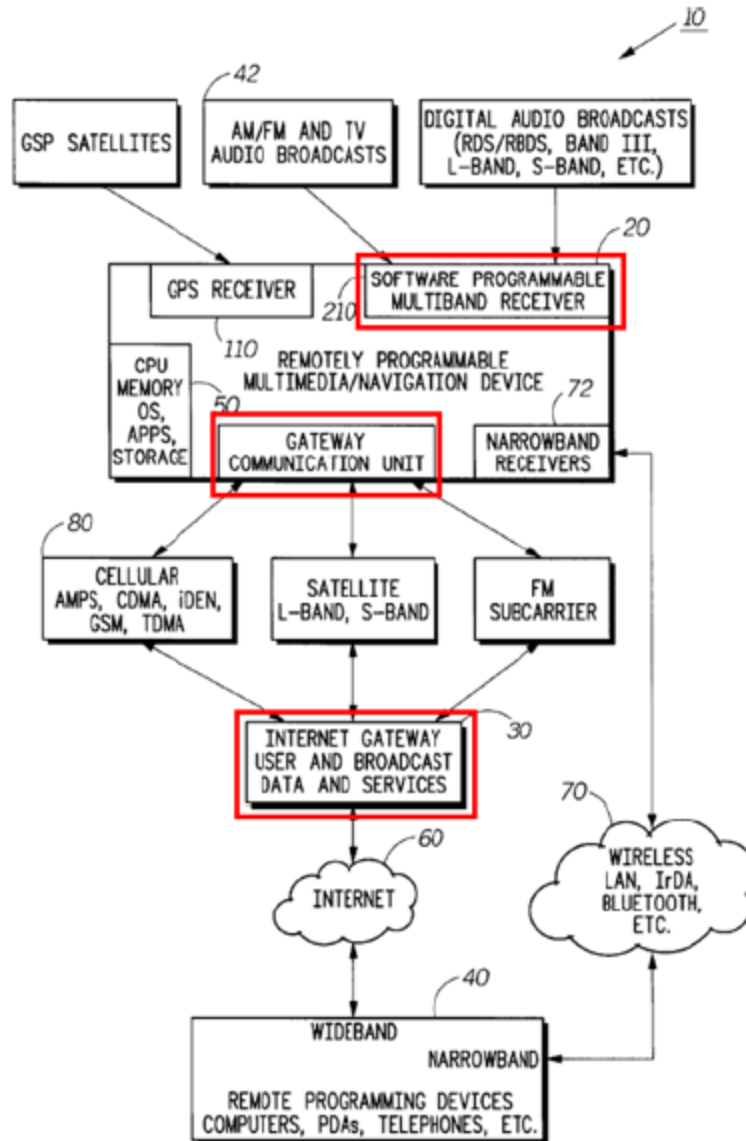


FIG. 1

Lee's Figure 1, annotated by Petitioner as shown above, is a block diagram showing the relationships of AM/FM and TV audio broadcasts block 42, Internet gateway user and broadcast data and services block 30 (outlined in red), software programmable multiband receiver block 210 (outlined in red), and gateway communication unit of remotely programmable multimedia/navigation device 20 (also outlined in red).

Petitioner argues that “[b]ecause the ‘wireless Internet addressable gateway transceiver 130’ in Lee’s ‘multimedia device 20’ receives the advertisement-related data (*i.e.*, the claimed ‘second media content’) from ‘Internet gateway 30,’ whereas the ‘multiband receiver’ in Lee’s ‘multimedia device 20’ receives the broadcast of the audio advertisement (*i.e.*, the claimed ‘first media content’) from a radio broadcaster, [a person of ordinary skill in the art] would have understood that the second media content is received discretely from the first media content, as claimed.” Pet. 31–32 (citing Ex. 1003 ¶ 101). Petitioner’s evidence is corroborated by the testimony of Dr. Williams. *See* Ex. 1003 ¶¶ 98–101.

Patent Owner, however, contends that Lee does not disclose second media content being received discretely from first media content. *See* PO Resp. 37–42; PO Sur-reply 1–10. Patent Owner asserts that “Lee does not include advertising-related data represented by action button labels or advertising logos in the list of ‘information’ transmitted or received by the Internet gateway network 30.” PO Resp. 38 (citing Ex. 1004, 6:9–32; Ex. 2019 ¶ 101; Ex. 2019 ¶¶ 69–72). Patent Owner also asserts that there is no embodiment in Lee “where advertisement-related data, such as data needed to create ‘BUY’ or ‘INFO’ action buttons, or data associated with ‘advertising logos,’ passes from gateway 30 to multimedia device 20.” PO Resp. 39 (citing Ex. 2019 ¶ 102).

Patent Owner argues that “advertisement data used by device 20’s computer programs to display the button labels or the advertisement logos does not pass to the device from network gateway 30.” PO Resp. 41 (citing Ex. 2019 ¶ 105). Patent Owner also argues that a person of ordinary skill in the art “would have understood that the data underlying the advertising logos was received by multimedia device 20 along with the

audio broadcast signal on a subcarrier frequency band, such as RDS/RBDS, and not discretely from the broadcast stream.” PO Resp. 42 (citing Ex. 2019 ¶ 106). Patent Owner’s arguments are supported by the testimony of Dr. Moon. *See* Ex. 2019 ¶¶ 97–107.

In its Reply, Petitioner argues that Patent Owner is incorrect and that the discrete reception of the broadcast audio advertisement (first media content) and data related to the advertisements (second media content) by Lee’s multimedia device 20 is shown by Lee’s Figures 1 and 3, annotated by Petitioner and set out below. Pet Reply. 3–4.

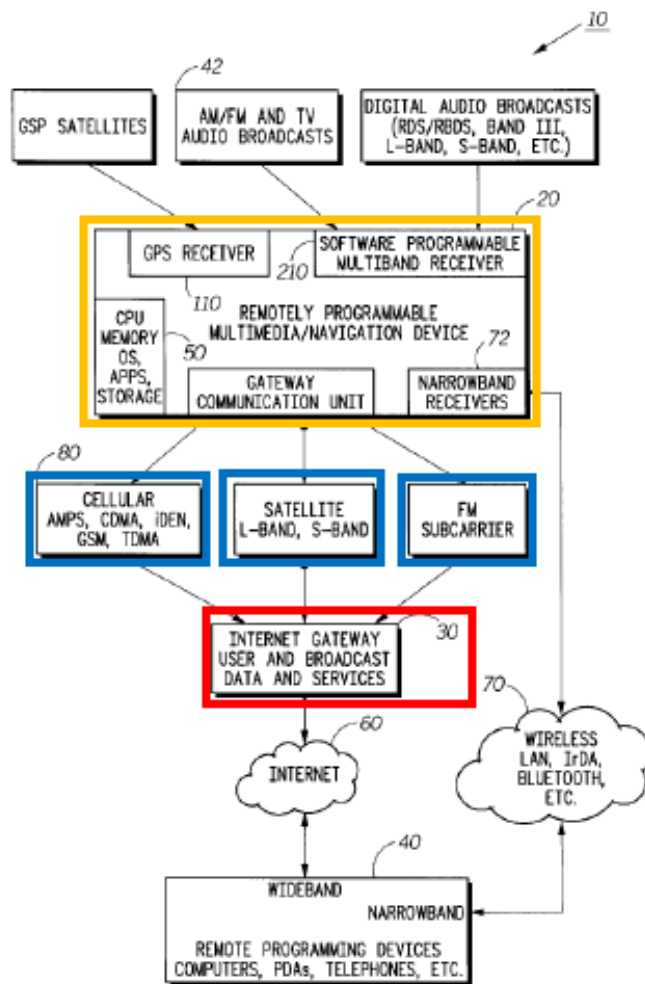


FIG. 1

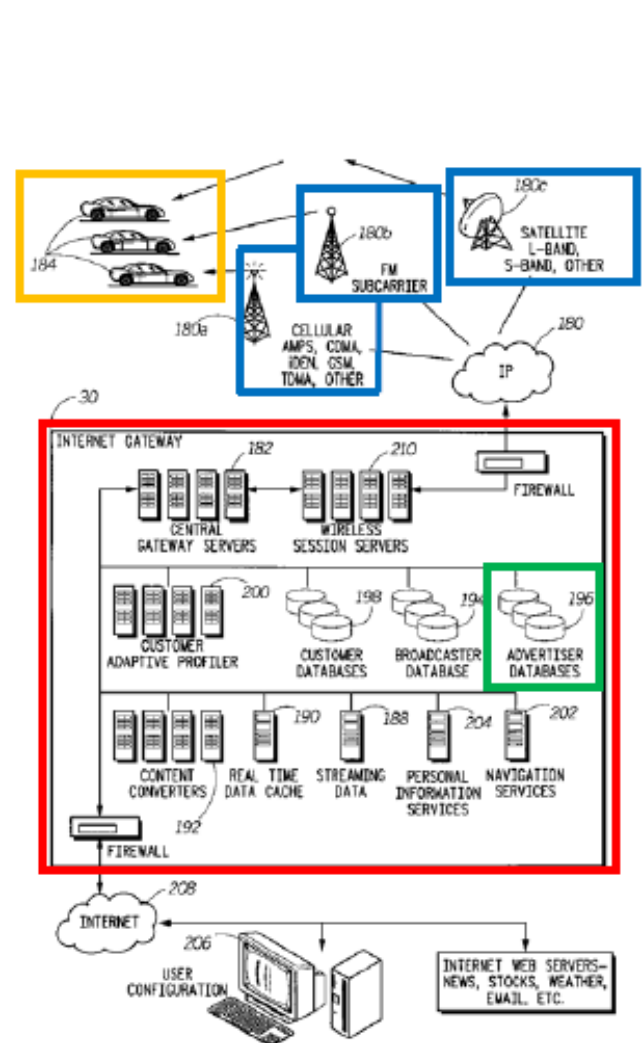


FIG. 3

According to Petitioner, Lee's Figure 1 (above left) and Figure 3 (above right), both annotated by Petitioner, show that

internet gateway 30 (boxed in red) can transmit information to the "gateway communication unit" (boxed in orange) through any of three transmission protocols (boxed in blue). These three transmission protocols (again, boxed in blue) are also shown as towers in Figure 3 (depicting a system diagram of internet gateway network), along with advertiser databases 196 (boxed in green).

Pet. Reply 4–5 (citing Ex. 1017 ¶ 16).

Petitioner argues that "Lee's figures show that the advertisement information from advertiser databases 196 is transmitted to Lee's multimedia device 20, contemporaneous with the radio broadcast, through internet gateway 30 to the device's 'gateway communication unit.'" Pet. Reply 5 (citing Ex. 1017 ¶ 17). Dr. Williams' testimony supports Petitioner's arguments. *See* Ex. 1017 ¶¶ 9–32. Dr. Williams testifies that the first media content (broadcast audio advertisement) and the second media content (data related to the advertisements) "are received discretely at least because they are received by two separate receiving elements of Lee's multimedia device." Ex. 1017 ¶ 10 (citing Ex. 1003 ¶¶ 100-101).

We agree with Petitioner. Contrary to Patent Owner's arguments, Lee discloses that multimedia device 20 receives advertisement-related data (i.e., the recited "*second media content*") from Internet gateway 30 through device 20's gateway communication unit, whereas device 20 receives the broadcast of audio advertisements (i.e., the recited "*first media content*") from a digital audio broadcaster through device 20's software programmable multiband receiver 210. *See, e.g.* Ex. 1004, Fig. 1. Lee shows these two pathways in Figures 1 and 3, annotated by Petitioner and shown above.

In Lee's Figure 1, system 10 comprises multimedia device 20 (yellow) receiving digital audio broadcasts, including audio advertisements, through software programmable multiband receiver 210. Multimedia device 20 separately receives advertisement-related data from Internet gateway 30 (red) through the gateway communication unit. Lee's Figure 3 shows advertiser databases 196 located within Internet gateway 30 (red).

Lee explains that "Internet gateway network 30 is designed to transmit and receive critical information to and from a multimedia device 20 in the vehicle 184 (FIG. 3). Information transmitted preferably includes . . . broadcast advertising database lookup for direct response to advertisements heard in a vehicle." Ex. 1004, 6:9–20. Lee also explains that multimedia device 20 contains multiple distinct receivers, including "a software controlled multi-band AM, FM, TV audio and digital audio broadcast receiver 100," and "a wide band wireless Internet addressable gateway transceiver 130." *Id.* at 8:26–38. Lee explains that "[t]he in-vehicle wireless gateway transceiver 130 can also send information to the gateway network 30 such as . . . advertisement responses, purchase requests, etc." *Id.* at 8:41–44. Lee's multimedia device 20's programmable multiband receiver 100 and gateway receiver 130 are shown separately in Figure 2 below.

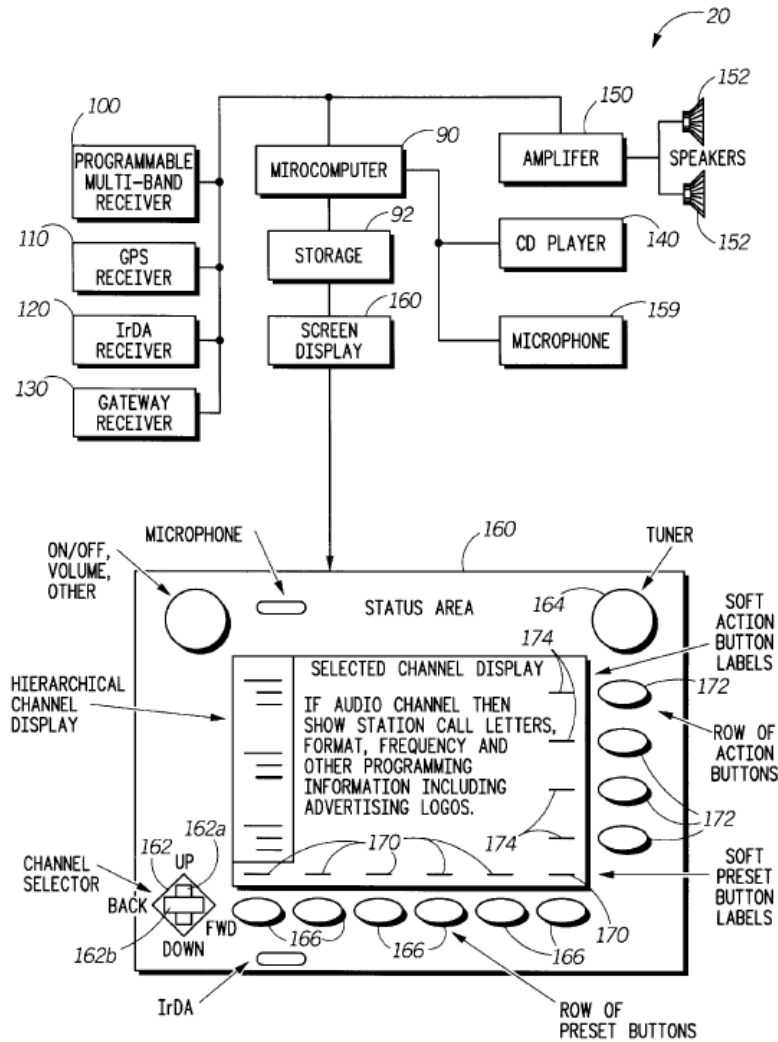


FIG. 2

Lee’s Figure 2, above, shows the configuration of components and features of multimedia device 20, including programmable multi-band receiver 100 and gateway receiver 130. Lee goes on to explain that “[a]dvertising databases 196 provide information about advertisements (e.g., advertiser name, ad content, time of ad run, etc.),” and that “enhanced advertising information for short periods of time may be pushed to the multimedia device 20 from the gateway 30 at set intervals.” *Id.* at 11:16–18,

11:29–31. Lee shows that its advertising databases 196 are located entirely within Internet gateway 30. *See id.* Fig. 3.

Dr. Williams opines, based on Lee’s description of the functionality of the “BUY” and “INFO” buttons, and Lee’s statement that the labels “change from program to program” based on the “current function” that the button label should indicate, that a person of ordinary skill in the art

would have understood that data are sent by Lee’s “Internet gateway 30” which inform the “multimedia device 20” as to when (and what) “action button labels 174” to display, so that the display screen is in sync with the audio broadcasts—such as displaying the “BUY” action button label when a product is currently being advertised.

Ex. 1003 ¶¶ 91–93 (citing Ex. 1004, 10:20–30, Fig. 2) (emphasis omitted); *see* Pet. 28; Ex. 1017 ¶ 22; Ex. 1004, 11:16–33 (describing the “BUY” and “INFO” buttons, and stating that “[o]nly those ads offering immediate purchase or additional information will preferably show indicators for these actions”). And Lee’s Figures 1–3, reproduced above, “show that the advertisement information from advertiser databases 196 is transmitted to Lee’s multimedia device 20, contemporaneous with the radio broadcast, through internet gateway 30 to the device’s ‘gateway communication unit.’” Ex. 1017 ¶ 17. Dr. Williams’s analysis is consistent with the disclosure of Lee and persuasive as to how a person of ordinary skill in the art would have understood the reference.

We also note that in its Response, Patent Owner disputes *when* Lee’s Internet gateway 30 transmits enhanced advertisement information to multimedia device 20, not *whether* this transmission occurs. *See* PO Resp. 41 (“Lee clearly teaches that the internet gateway 30 does not transmit enhanced advertisement information until *after* a button is pressed,

following which information may be sent from the internet gateway to the device.”).³

Based on this record, including the testimony of Dr. Williams, which we credit, we are persuaded that Petitioner has demonstrated that Lee’s description of multimedia device 20 receiving audio advertisements through software programmable multiband receiver 210 and receiving advertisement-related data through a gateway communication unit discloses the recited limitation “*the second media content received discretely from the first media content*” of claim 12.

v. 12[d] *determining uniquely identifying data specific to at least the second media content*

According to Petitioner, “Lee explains that certain advertisements ‘offer immediate purchase’ of the advertised items or ‘additional information,’ such as location information related to such the advertisements.” Pet. 32 (citing Ex. 1004, 11:16–32, 11:57–62; Ex. 1003 ¶ 102). Petitioner explains that “Lee discloses that a ‘user can press a ‘BUY’ or ‘INFO’ button on the multimedia device 20, which transmits to the gateway network 30 the location of his vehicle 184 (GPS derived), the date and time of the button press, and the channel selected.” Pet. 32 (citing Ex. 1004, 11:16–32, Fig. 2; Ex. 1003 ¶ 103).

³ Regardless, we disagree with Patent Owner’s view of the timing of sending enhanced advertisement information in Lee. See PO Resp. 41. Lee discloses an embodiment in which “enhanced advertising information for short periods of time may be pushed to the multimedia device 20 from the gateway 30 at set intervals”—not “pulled,” for example, in response to a button being pressed, as Patent Owner contends. See Ex. 1004, 11:28–31; Reply 8; Ex. 1017 ¶¶ 27–28.

Petitioner argues that “the date, time, and the radio channel data uniquely identify each advertisement, and enable Internet gateway 30 to identify the product related to the enhanced advertisement.” Pet. 33 (citing Ex. 1003 ¶ 107). Petitioner contends that “[t]he date and time of the button press,’ and ‘the channel selected’ correspond to the claimed ‘uniquely identifying data specific to at least the second media content.’” *Id.* (citing Ex. 1003 ¶ 108).

Petitioner’s arguments are supported by the testimony of Dr. Williams. *See* Ex. 1003 ¶¶ 102–109. Dr. Williams provides an annotated version of a portion of Lee’s Figure 2, shown below. *Id.* ¶ 104.

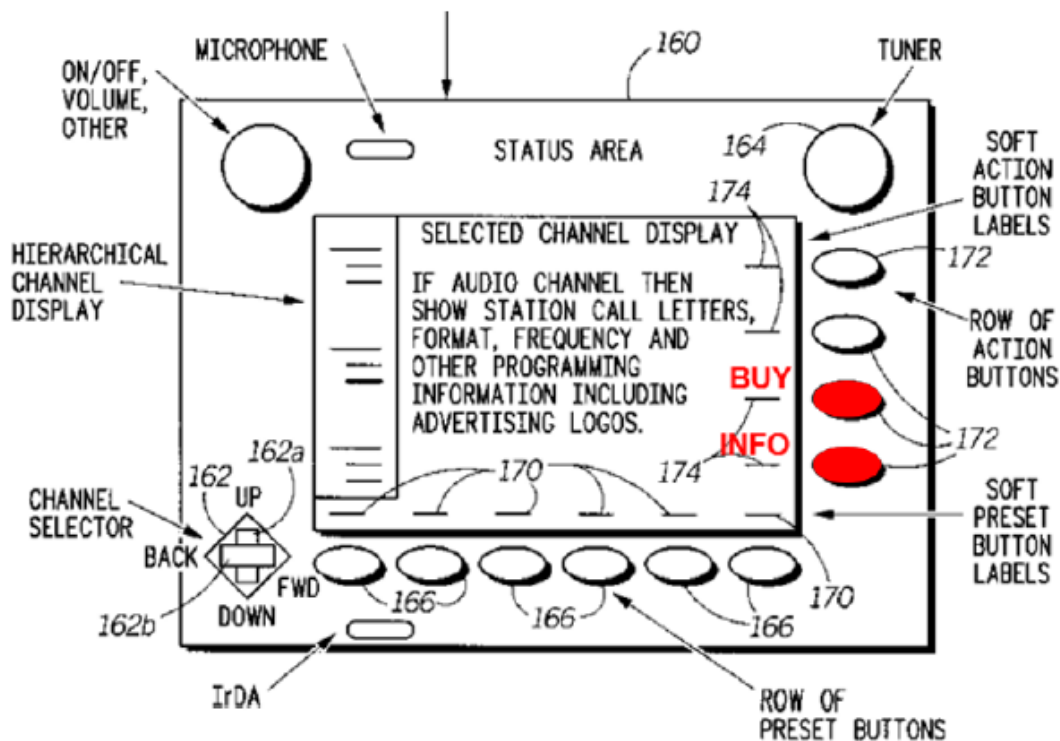


FIG. 2

Lee’s Figure 2, annotated by Petitioner above, depicts display screen 160 of multimedia device 20, showing action buttons 172 (red) and soft action label buttons “BUY” and “INFO” 174. Ex. 1003 ¶ 104. Dr. Williams

testifies that a person of ordinary skill in the art “would have understood that the date, time, and the radio channel data is sufficient for the Internet gateway 30 to look up the advertised item in the database 196 so that the gateway 30 can “charge[] [the user] for its delivery” or “sen[d] more information about the product.” *Id.* ¶ 105 (citing Ex. 1004, 11:16–32). Dr. Williams testifies that a person of ordinary skill in the art “would have understood that the date, time, and the radio channel data uniquely identify each advertisement, and enable Internet gateway 30 to identify the product related to the enhanced advertisement.” *Id.* ¶ 107.

Patent Owner contends that Lee does not disclose “determining uniquely identify data specific to at least the second media content.” *See* PO Resp. 42–44; PO Sur-reply 10–14. Patent Owner argues that “the ‘date and time of button press’ and ‘the channel selected’ do not uniquely distinguish between the ‘BUY’ button and the ‘INFO’ button because the ‘channel selected’ and date/time will be the same irrespective of which button the user pressed.” PO Resp. 42–43 (citing Ex. 2019 ¶ 109; Ex. 2020, 141:6–143:23).

Patent Owner also argues that “there is no proof here that the ‘date and time of button press’ and ‘the channel selected’ uniquely identify the advertisement related data that Petitioner points to as the second media content.” PO Resp. 43 (citing Ex. 2019 ¶ 110). Patent Owner argues that “Lee’s database uses the “date and time of button press” and “the channel selected” to identify the advertised product,” and “Petitioner has not identified the advertised product as the second media content.” PO Resp. 44 (citing Ex. 2019 ¶ 110). Patent Owner’s arguments are supported by the testimony of Dr. Moon. *See* Ex. 2019 ¶¶ 108–111.

In its Reply, Petitioner argues that Patent Owner “seeks to improperly narrow the claim language by requiring the determination of additional data (*i.e.*, button press data) specific to which button was pressed.” Pet. Reply 11. Petitioner argues that because “the advertisement-related data represented by the displayed buttons corresponds to the claimed ‘*second media content*,’ the date/time and channel information logged when the user presses *either* of the buttons would provide information that is uniquely specific to the advertisement-related data, and would thus satisfy limitation 12[d].” Pet. Reply 12 (citing Ex. 1017 ¶ 38).

Petitioner also argues that “Lee discloses that ‘[a]dvertising databases 196 provide information about advertisements (e.g., advertiser name, ad content, time of ad run, etc.)’” and “[t]herefore, the ‘date and time of button press’ and ‘the channel selected’ also provide information about the ad content being presented at the time of the button press, which would include the advertising logo.” Pet. Reply 13 (citing Ex. 1004, 11:16–19; Ex. 1017 ¶ 41).

We agree with Petitioner. Limitation 12[d] requires “*determining uniquely identifying data specific to at least the second media content.*” Here, Petitioner explains that “Lee discloses that a ‘user can press a ‘BUY’ or ‘INFO’ button on the multimedia device 20, which transmits to the gateway network 30 the location of his vehicle 184 (GPS derived), the date and time of the button press, and the channel selected.’” Pet. 32 (citing Ex. 1004, 11:16–32, Fig. 2; Ex. 1003 ¶ 103). Petitioner identifies “[t]he date and time of the button press,’ and ‘the channel selected’ [as] correspond[ing] to the claimed ‘uniquely identifying data specific to at least the second media content.’” Pet. 33 (citing Ex. 1003 ¶ 108).

Lee explains that “[t]he Internet gateway network 30 is designed to transmit and receive critical information to and from a multimedia device 20 in the vehicle 184 (FIG. 3). Information transmitted preferably includes . . . broadcast advertising database lookup for direct response to advertisements heard in a vehicle.” Ex. 1004, 6:9–17. Lee provides a specific example of how this occurs. Lee explains that

[a]dvertising databases 196 provide information about advertisements (e.g., advertiser name, ad content, time of ad run, etc.) . . . when a user wishes to purchase a product or get more information about a product while in the vehicle 184, the user can press a “BUY” or “INFO” button on the multimedia device 20, which transmits to the gateway network 30 the location of his vehicle 184 (GPS derived), the date and time of the button press, and the channel selected. The advertised item is then looked up in the database 196, and the user is charged for its delivery or is sent more information about the product.

Id. at 11:16–28.

According to Lee, then, a user pressing the “BUY” or “INFO” button on multimedia device 20 transmits to gateway network 30 the date and time of the button press and the selected channel that results in the identification of the advertised item so that the user can be properly charged for the delivery of the desired product or provided more information about the product. Indeed, Dr. Williams testifies that

the “date and time of button press” and “the channel selected” do provide information about the data underlying the action button labels. Moreover, Lee discloses that “[a]dvertising databases 196 provide information about advertisements (e.g., advertiser name, ad content, time of ad run, etc.).” EX1004, 11:16-19. Therefore, the “date and time of button press” and “the channel selected” also provide information about the ad content being presented at the time of the button press. A [person of ordinary skill in the art] would have understood that the ad content would

include the advertised product and/or its logos so that a person viewing the advertisement would know what to purchase.

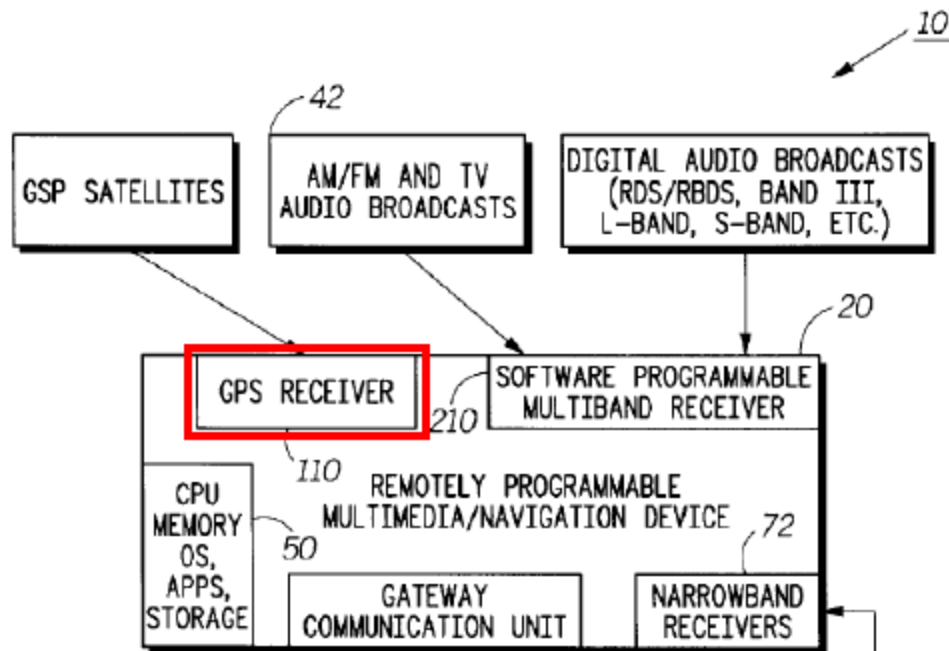
Ex. 1017 ¶ 41.

Based on this record, including the testimony of Dr. Williams, which we credit, we are persuaded that Petitioner has demonstrated that Lee’s description of a user pressing a “BUY” or “INFO” button on multimedia device 20, which transmits to gateway network 30 the location of vehicle 184 (GPS derived), the date and time of the button press, and the channel selected, discloses the recited limitation “*uniquely identifying data specific to at least the second media content*” of claim 12.

- vi. *12[e] determining a location of the electronic receiving device utilizing at least one of the following to determine the location of the electronic receiving device: a GPS system, a triangulation system, a geographic location system*

Petitioner asserts that “Lee discloses that ‘multimedia device 20’ includes ‘a GPS receiver 110 that continuously reports the vehicle’s longitude, latitude and altitude.’” Pet. 33 (citing Ex. 1004, 8:25–41, Fig. 1; Ex. 1003 ¶¶ 110–111). Petitioner also argues that “Lee’s ‘GPS receiver 110,’ which corresponds to the claimed ‘GPS system,’ determines the location of multimedia device 20, which corresponds to the claimed step of ‘determining a location of the electronic receiving device.’” Pet. 34 (citing Ex. 1003 ¶ 112).

Petitioner’s evidence is corroborated by the testimony of Dr. Williams. *See* Ex. 1003 ¶¶ 110–112. Dr. Williams testifies about Lee’s Figure 1, an annotated version of which is shown below.



Petitioner annotates a portion of Lee's Figure 1, shown above, placing a red box around GPS Receiver 110. Ex. 1003 ¶ 111. Lee's Figure 1 is a block diagram of a system overview, wherein the portion depicted by Petitioner above shows computer controlled multimedia entertainment and information system 10, with remotely programmable, microcomputer controlled multimedia device 20. Ex. 1004, 5:30–59. Dr. Williams testifies that a person of ordinary skill in the art “would have understood that Lee's ‘GPS receiver 110,’ which corresponds to the claimed ‘GPS system,’ determines the location of ‘multimedia device 20,’ which corresponds to the claimed step of ‘determining a location of the electronic receiving device.’” Ex. 1003 ¶ 112.

Patent Owner does not respond specifically to Petitioner's arguments or evidence with respect to this limitation. See PO Resp. 37–44.

Based on this record, including the testimony of Dr. Williams, which we credit, we are persuaded that Petitioner has demonstrated that Lee's description of GPS receiver 110 determining the location of multimedia

device 20 discloses the recited limitation “*determining a location of the electronic receiving device utilizing at least one of the following to determine the location of the electronic receiving device: a GPS system, a triangulation system, a geographic location system*” of claim 12.

- vii. 12[ff] *presenting concurrently the first media content and the second media content using an electronic output device*

Petitioner asserts that “Lee’s ‘multimedia device 20,’ which includes ‘display screen 160’ and ‘speakers 152’ corresponds to the claimed ‘electronic output device,’ which performs the claimed step of ‘presenting concurrently the first media content and the second media content.’” Pet. 38 (citing Ex. 1003 ¶ 124).

Petitioner argues that “Lee’s ‘multimedia device 20’ uses ‘speakers 152’ to present an audio advertisement (the claimed ‘first media content’) while it uses ‘display screen 160’ to concurrently present the ‘action button labels’ and ‘advertising logos,’ which display corresponds to the presentation of the claimed ‘second media content.’” Pet. 39 (citing Ex. 1003 ¶ 126).

Petitioner’s evidence is corroborated by the testimony of Dr. Williams. *See* Ex. 1003 ¶¶ 113–128. Dr. Williams provides an annotated version of Lee’s Figure 2, shown below. *Id.* ¶ 118.

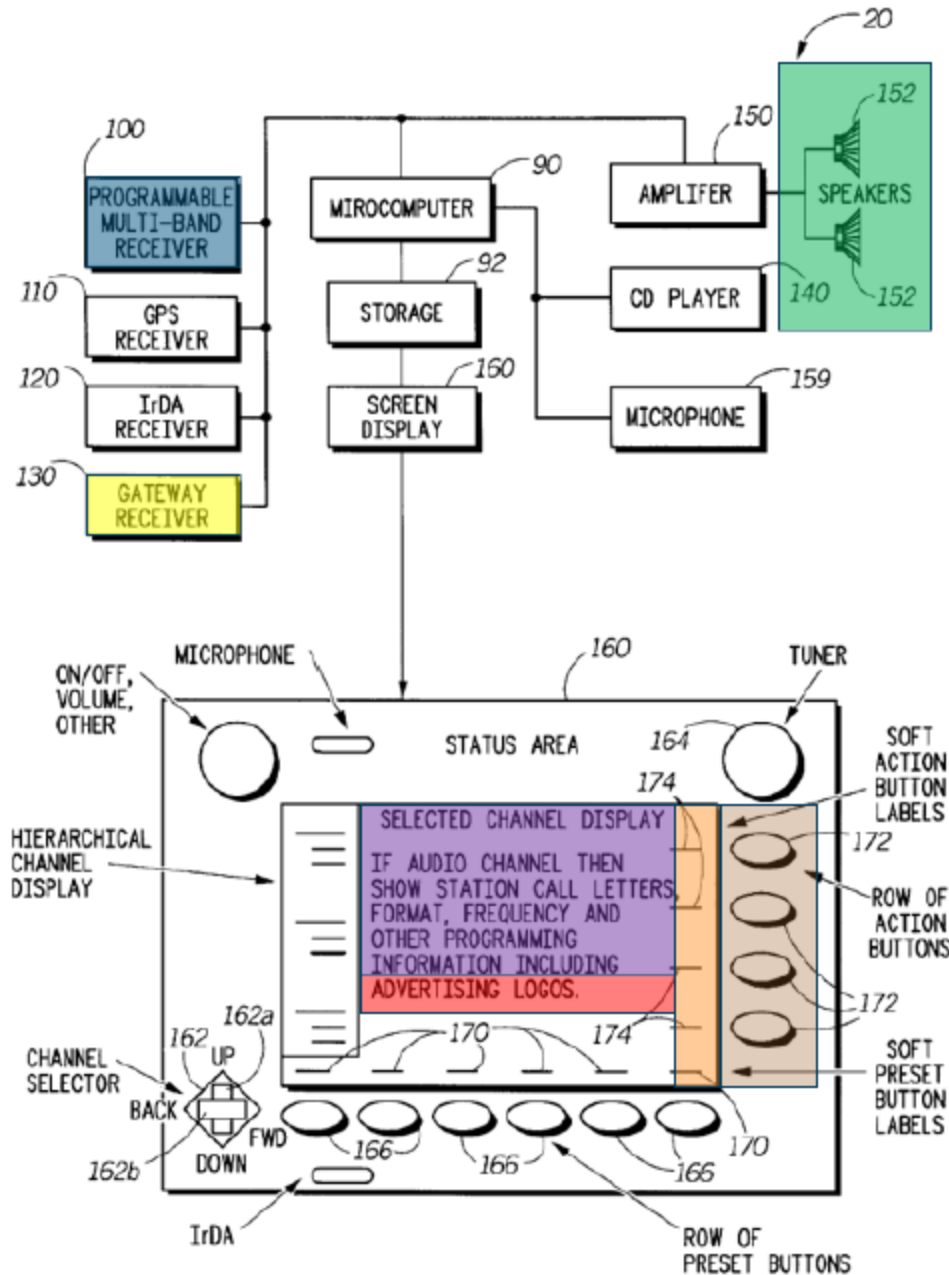


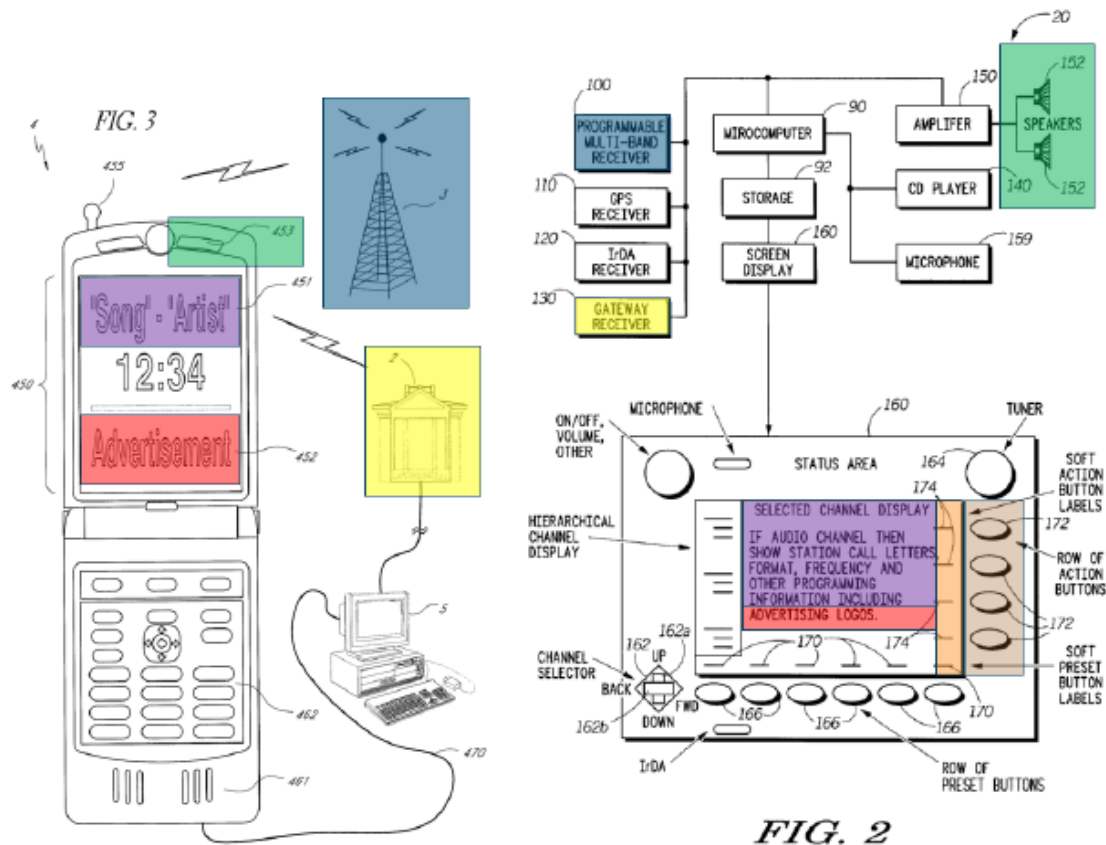
FIG. 2

Petitioner annotated version of Lee’s Figure 2, shown above, is a block diagram of vehicle multimedia device 20 with display screen 160. With respect to annotated Figure 2, Dr. Williams testifies that “Lee discloses that ‘multimedia device 20’ plays back an audio broadcast received by ‘receiver 100’ (blue) over a selected radio channel and outputs the sound

using speakers 152 (green). Ex. 1003 ¶ 114 (citing Ex. 1004, 8:47–48, Fig. 2). Dr. Williams explains that “[w]hile the audio broadcast is playing, display screen 160, as shown in figure 2, presents information related to the selected radio channel that is playing, including ‘station call letters, format, frequency, and other programming information’ (purple), which a [person of ordinary skill in the art] would have understood is received via an RDS/RBDS subcarrier channel.” Ex. 1003 ¶ 115 (citing Ex. 1004, Fig. 2).

Dr. Williams goes on to explain that “Lee also discloses that, when ‘multimedia device 20’ receives advertisement-related data from ‘Internet gateway 30’ using ‘gateway receiver 130’ (yellow), multimedia device 20 displays one or more ‘action button labels 174’ (orange) on display screen 160, each associated with an ‘action button 172’ (brown), to allow the user to interact with the advertisement-related data.” Ex. 1003 ¶ 116 (citing Ex. 1004, 10:20–30). Dr. Williams testifies that “Lee provides multiple examples of such ‘action button labels,’ including a ‘BUY’ label, which is presented for “ads offering immediate purchase,” and an “INFO” label, which is presented for ‘ads offering ... additional information.’” Ex. 1003 ¶ 117 (citing Ex. 1004, 11:16–33).

Dr. Williams also testifies that Lee’s multimedia receiver 20 “presents information in a manner similar to the presentation of information of the ’405 Patent’s ‘user device 4.’” Ex. 1003 ¶ 119. Dr. Williams provides Figure 3 from the ’405 Patent, annotated below shown adjacent to Lee’s annotated Figure 2. *Id.* ¶ 123.



Petitioner’s annotated Figure 3 from the ’405 Patent is shown above left adjacent to Lee’s annotated Figure 2 on the right. Dr. Williams explains that annotated Figure 3 from the ’405 Patent “illustrates ‘user device 4’ presenting an audio broadcast received from radio transmitter 1 (blue) using speaker 453 (green).” Ex. 1003 ¶ 120 (citing Ex. 1001, 19:1–9). Dr. Williams further explains that “[t]he ’405 Patent discloses that device 4, while playing the audio, also presents on a display 450 ‘textual information corresponding to the music being played on the radio’ (purple) and ‘an advertisement signal 113’ (red).” Ex. 1003 ¶ 121 (citing Ex. 1001, 19:66–20:3). According to Dr. Williams, “[t]he textual information ‘can be acquired from an associated media signal 112,’ for example, an ‘accompanying RBDS and/or RDS signal.’” Ex. 1003 ¶ 122 (citing Ex. 1001, 19:25–31, 25:9–12). “The advertisement signal 113,”

Dr. Williams explains, “is provided by the ‘media association system 2’ (yellow).” Ex. 1003 ¶ 123 (citing Ex. 1001, 9:44–47).

Dr. Williams testifies that a person of ordinary skill in the art “would have understood that Lee’s ‘multimedia device 20,’ which includes ‘display screen 160’ and ‘speakers 152’ corresponds to the claimed ‘electronic output device,’ which performs the claimed step of ‘presenting concurrently the first media content and the second media content.’” Ex. 1003 ¶ 124.

Dr. Williams also testifies that “Lee’s ‘multimedia device 20’ uses ‘speakers 152’ to present an audio advertisement (the claimed ‘first media content’) while it uses ‘display screen 160’ to concurrently present the ‘action button labels’ and ‘advertising logos,’ which display corresponds to the presentation of the claimed ‘second media content.’” Ex. 1003 ¶ 126.

Patent Owner does not respond specifically to Petitioner’s arguments or evidence with respect to this limitation. *See* PO Resp. 37–44.

Based on this record, including the testimony of Dr. Williams, which we credit, we are persuaded that Petitioner has demonstrated that Lee’s description of multimedia device 20 using speakers 152 to present an audio advertisement while concurrently using screen 160 to display action button labels and advertising logos discloses the recited limitation “*presenting concurrently the first media content and the second media content using an electronic output device*” of claim 12.

viii. 12[g] *detecting at least a response input responsive to the second media content*

Petitioner argues that “Lee discloses that users are able to interact with the broadcast by pressing a physical ‘action button 172’ that corresponds to the virtual ‘action button label’ presented next to it on the screen.” Pet. 40 (citing Ex. 1004, 10:20–30, 11:16–33, Fig. 2; Ex. 1003

¶ 129). Petitioner explains that “if ‘a user wishes to purchase [the] product or get more information about [the] product while in the vehicle 184, the user can press a ‘BUY’ or ‘INFO’ button on the multimedia device 20.’”

Pet. 40. Petitioner argues that “Lee’s disclosure that ‘the user can press a ‘BUY’ or ‘INFO’ button on the multimedia device 20’ in response to data related to an advertisement corresponds to the claimed ‘response input responsive to the second media content.’” *Id.* at 41 (citing Ex. 1003 ¶ 132).

Petitioner’s evidence is corroborated by the testimony of Dr. Williams. *See* Ex. 1003 ¶¶ 129–133. Dr. Williams explains that as disclosed in Lee,

when listening to an advertisement playing on the radio related to a product, if “a user wishes to purchase [the] product or get more information about [the] product while in the vehicle 184, the user can press a ‘BUY’ or ‘INFO’ button on the multimedia device 20, which transmits to the gateway network 30 the location of his vehicle 184 (GPS derived), the date and time of the button press, and the channel selected. The advertised item is then looked up in the database 196, and the user is charged for its delivery or is sent more information about the product.”

Ex. 1003 ¶ 130 (citing Ex. 1004, 11:16–33).

Dr. Williams also testifies that a person of ordinary skill in the art “would have understood that Lee’s disclosure of ‘transmit[ing] to the gateway network 30 location of his vehicle 184 (GPS derived), the date and time of the button press, and the channel selected’ necessarily means that Lee’s system has ‘detect[ed] at least a response input responsive to the second media content.’” Ex. 1003 ¶ 133.

Patent Owner does not respond specifically to Petitioner’s arguments or evidence with respect to this limitation. *See* PO Resp. 37–44.

Based on this record, including the testimony of Dr. Williams, which we credit, we are persuaded that Petitioner has demonstrated that Lee’s

description of a system wherein a user when listening to an audio advertisement in a vehicle can press an action button on multimedia device 20, which transmits to gateway network 30 the location of the user's vehicle, the date and time of the button press, and the selected channel, such that the advertised item is looked up in database 196 and the user is charged for its delivery or is sent more information about the product, discloses the recited limitation “*detecting at least a response input responsive to the second media content*” of claim 12.

- ix. *12[h] transmitting electronically to a computer server a response message comprising at least the uniquely identifying data specific to at least the second media content and the location of the electronic receiving device*

Petitioner argues that “Lee discloses that multimedia device’s ‘wireless gateway transceiver 130 can . . . send information to the gateway network 30 such as requests for navigation data, advertisement responses, purchase requests, etc.’” Pet. 42 (citing Ex. 1004, 8:41–44). For example, Petitioner argues, “Lee discloses that, when listening to an advertisement playing on the radio related to a product, pressing a button causes multimedia device 20 to ‘transmit to the gateway network 30 the location of his vehicle 184 (GPS derived), the date and time of the button press, and the channel selected.’” Pet. 42 (citing Ex. 1004, 11:16–33; Ex. 1003 ¶ 134). Petitioner argues that “Lee’s disclosure of ‘the date and time of the button press, and the channel selected’ corresponds to the claimed ‘uniquely identifying data specific to at least the second media content.’” Pet. 42–43 (citing Ex. 1003 ¶ 135).

Petitioner further argues that “Lee’s disclosure of ‘Internet gateway 30’ corresponds to the claimed ‘computer server’; and Lee’s disclosure of

‘transmit[ting] to the gateway network 30 the location of his vehicle 184 (GPS derived), the date and time of the button press, and the channel selected’ corresponds to the claimed ‘transmitting electronically to a computer server a response message comprising at least the uniquely identifying data specific to at least the second media content and the location of the electronic receiving device.’” Pet. 44–45 (citing Ex. 1003 ¶ 139).

Petitioner’s evidence is corroborated by the testimony of Dr. Williams. *See* Ex. 1003 ¶¶ 134–141. Dr. Williams testifies that a person of ordinary skill in the art “would have understood that Lee teaches that multimedia device 20 sends to Internet gateway 30 both its location and uniquely identifying data specific to at least the second media content.” Ex. 1003 ¶ 136.

Dr. Williams also testifies that a person of ordinary skill in the art would have understood that Lee’s disclosure of ‘Internet gateway 30’ corresponds to the claimed ‘computer server’; and, a [person of ordinary skill in the art] would have understood that Lee’s disclosure of ‘transmit[ting] to the gateway network 30 the location of his vehicle 184 (GPS derived), the date and time of the button press, and the channel selected’ corresponds to the claimed ‘transmitting electronically to a computer server a response message comprising at least the uniquely identifying data specific to at least the second media content and the location of the electronic receiving device.’

Id. ¶ 139.

Patent Owner does not respond specifically to Petitioner’s arguments or evidence with respect to this limitation. *See* PO Resp. 37–44.

Based on this record, including the testimony of Dr. Williams, which we credit, we are persuaded that Petitioner has demonstrated that Lee’s description of transmitting a GPS derived vehicle location, the date and time of a button press, and the selected channel to gateway network 30 discloses

the recited limitation “*transmitting electronically to a computer server a response message comprising at least the uniquely identifying data specific to at least the second media content and the location of the electronic receiving device*” of claim 12.

x. Conclusion on Independent Claim 12

Based upon consideration of the entire record, we are persuaded by Petitioner’s evidence and arguments, notwithstanding Patent Owner’s evidence and arguments, and determine that Petitioner has demonstrated by a preponderance of the evidence that independent claim 12 is unpatentable under 35 U.S.C. § 102(b) as anticipated by Lee.

2. Dependent Claims 13–16

Petitioner contends that Lee discloses the recited limitations of dependent claims 13–16. *See* Pet. 46–49 (claim 13), 49–50 (claim 14), 50–52 (claim 15), and 52–53 (claim 16).

i. Dependent Claim 13

Dependent claim 13 recites, “[*t*]he method of claim 12, further comprising determining an identification of a specific instance of the first media content.” Petitioner identifies audio advertisements broadcast by a radio station as the recited “first media content.” Pet. 46 (citing Ex. 1003 ¶ 142).

For this claim, Petitioner asserts that “Lee further discloses that ‘station call letters, format, frequency, and other programing information’ related to the radio broadcast is transmitted to ‘multimedia device 20’ via an RDS/RBDS subcarrier channel.” Pet. 46 (citing Ex. 1004, Figs. 1, 2). Petitioner argues that a person of ordinary skill in the art “would have understood that having this information is ‘an identification of the specific instance of the first media content’ because it provides an identification of

the first media content (*e.g.*, it is an advertisement for Target).” Pet. 47 (citing Ex. 1003 ¶ 144).

Petitioner also points out that in Lee, the “‘radio station call letters, programming format, frequency assignment, program listing, etc.’ are also stored—together with additional timing-related information about the broadcasts—in the ‘broadcaster relational databases’ and ‘advertising databases’ of the ‘Internet gateway 30.’” Pet. 47 (citing Ex. 1003 ¶ 145). Petitioner argues that these databases also provide “an identification of the ‘specific instance of the first media content.’” Pet. 48 (citing Ex. 1003 ¶ 146).

Petitioner argues that a person of ordinary skill in the art “would have understood [that] Lee’s ‘broadcaster relational database 194’ ‘continuously updates throughout a day’ ‘concerning constantly changing program listings (*e.g.*, songplay lists, etc.)’ and Lee’s ‘advertising database 196’ does likewise concerning ‘information about advertisements (*e.g.*, advertiser name, ad content, time of ad run, etc.).” Pet. 48–49 (citing Ex. 1003 ¶ 147). Dr. Williams provides testimony that supports Petitioner’s arguments. Ex. 1003 ¶¶ 142–148.

Patent Owner argues that “Petitioner does not explain how ‘station call letters, format, frequency, and other programming information’ would differentiate between the different occurrences of [an] advertisement.” PO Resp. 45 (citing Ex. 2019 ¶ 113); PO Sur-reply 13–18. “Simply, because the information ‘provides an identification of the first media content,’” Patent Owner argues, “does not mean it identifies a specific instance.” PO Resp. 45 (emphasis omitted).

Patent Owner also argues that “Lee’s [advertisement] database is not storing information about a specific instance of media content played on a

receiver, but instead an all-inclusive list of when media content *may* be played.” PO Resp. 46 (citing Ex. 2019 ¶ 114). Patent Owner argues that “in Lee the timestamp indicating when the user pressed a button is not used to determine a specific instance of an advertisement; instead, the timestamp is only used to determine which advertisement the user selected, not which *specific instance* of the advertisement the user selected.” *Id.* Dr. Moon provides testimony that supports Patent Owner’s arguments. Ex. 2019 ¶¶ 112–116.

In its Reply, Petitioner argues that Lee’s station call letters, format, frequency, and other programming information relating to a radio broadcast are “an identification of the specific instance of the first media content” because it provides an identification of the first media content (e.g., ‘programming information’) with the context surrounding the specific transmission of that instance of the media content, including the time at which the user hears the audio-advertisement.” Pet. Reply 14.

Petitioner also argues that Lee’s “broadcaster relational databases” are continuously updated with constantly changing program listings and Lee’s “advertising databases,” which include, e.g., the advertiser name, ad content, and time of ad run, provide information contemporaneously with real-time broadcasts. Pet. 15–16. These databases, Petitioner argues, provide an identification of the “*specific instance of the first media content*” because the databases contain all of the information that would be needed to identify each instance of transmission of the first media content. *Id.* (citing Ex. 1004, 11:1–19; Ex. 1017 ¶ 48).

Dr. Williams provides testimony supporting Petitioner’s arguments in its Reply. Ex. 1017 ¶¶ 43–48. Dr. Williams testifies that Lee’s disclosure “that the advertising databases include, ‘e.g., the advertiser name, ad

content, [and] time of ad run, etc.” shows that “these databases are in fact storing information about a specific instance of media content played on a receiver, otherwise there would be no need to include the ‘time of ad run’ in the database.” *Id.* ¶ 48 (citing Ex. 1004, 11:1–19) (emphasis omitted).

We agree with Petitioner. Claim 13 adds the additional limitation of “*determining an identification of a specific instance of the first media content*” to independent claim 12. Petitioner identifies audio advertisements broadcast by a radio station as the recited “*first media content*.” Pet. 46 (citing Ex. 1003 ¶ 142). Lee discloses “a broadcaster relational database 194 containing information about all AM, FM and TV analog audio broadcasts that can be received in a vehicle 184,” including, “e.g., radio station call letters, programming format, frequency assignment, program listing, etc.” Ex. 1004, 11:1–8. Lee also discloses “advertising databases 196 [that] provide information about advertisements (e.g., advertiser name, ad content, time of ad run, etc.) that are inserted into real-time radio broadcasts.” *Id.* at 11:16–18.

Lee explains that

when a user wishes to purchase a product or get more information about a product while in the vehicle 184, the user can press a “BUY” or “INFO” button on the multimedia device 20, which transmits to the gateway network 30 the location of his vehicle 184 (GPS derived), the date and time of the button press, and the channel selected. The advertised item is then looked up in the database 196, and the user is charged for its delivery or is sent more information about the product.

Id. at 11:20–28.

The fact that Lee’s system discloses the ability to respond to a user’s request to purchase a product or get more information about a product while the user is listening to an audio advertisement while in a vehicle, wherein

“[t]he advertised item is then looked up in the database 196, and the user is charged for its delivery or is sent more information about the product,” demonstrates that Lee’s system is “*determining an identification of a specific instance of the first media content*,” i.e. determining the identification of the audio advertisement being broadcast by the radio station when the user requests to purchase the advertised product or get more product information while in the vehicle. *Id.* Indeed, Patent Owner’s expert, Dr. Moon, admits that tracking when an ad was played would be an example of identifying a specific instance of the advertisement for a given product. Ex. 1018, 254:13–255:5.

Based on this record, including the testimony of Dr. Williams, which we credit, we are persuaded that Petitioner has demonstrated that Lee discloses the recited limitation “*determining an identification of a specific instance of the first media content*” of dependent claim 13.

ii. *Dependent Claim 14*

Dependent claim 14 recites, “[t]he method of claim 13, wherein the response message further comprises at least one of the following: the identification of the specific instance of the first media content, data that enables identification of a responder.”

Petitioner notes that Lee discloses when a user of multimedia device 20 “press[es] a ‘BUY’ . . . button on the multimedia device 20 . . . [t]he advertised item is then looked up in the database 196, and the user is charged for its delivery or is sent more information about the product.” Pet. 49 (citing Ex. 1004, 11:26–28; Ex. 1003 ¶ 149).

Petitioner indicates that “Lee further discloses that the user ‘preferably logs into the Internet gateway network 30 in a known manner. If the user has never created an account before, he/she will first answer a series

of questions to create a user profile.” Pet. 49 (citing Ex. 1004, 13:57–61; Ex. 1003 ¶ 151). According to Petitioner, “[a] user account associated with the multimedia device 20, and having a unique user identifier, is created with the Internet gateway network 30.” Pet. 49–50 (citing Ex. 1004, 11:34–44; Ex. 1003 ¶ 152).

“Accordingly,” Petitioner argues, a person of ordinary skill in the art “would have understood that, when the account-holding user ‘press[es] a ‘BUY’ . . . button on the multimedia device 20,’ multimedia device 20 sends information sufficient to identify the user account associated with the multimedia device 20, for example, a unique user identifier, to the Internet gateway network 30—*i.e.*, so that the user may be charged for the ordered product.” Pet. 50 (citing Ex. 1003 ¶ 153).

Petitioner also asserts that “Lee further discloses that ‘[i]f there are multiple users on one account (e.g., family members) then each user will preferably have a unique profile in the user database 198.’” Pet. 50 (citing Ex. 1004, 11:41–43; Ex. 1003 ¶ 154).

Dr. Williams testifies that a person of ordinary skill in the art “would have understood that these disclosures correspond to the claimed ‘wherein the response message further comprises at least one of the following: the identification of the specific instance of the first media content, data that enables identification of a responder’ because they disclose data that enable identification of a responder.” Ex. 1003 ¶ 155.

Patent Owner does not respond specifically to Petitioner’s evidence and arguments directed to dependent claim 14. *See* PO Resp. 47.

Based on this record, including the testimony of Dr. Williams, which we credit, we are persuaded that Petitioner has demonstrated that Lee’s description of a user account’s having unique user identifiers created with

Internet gateway network 30 so that a user may be identified and charged for products ordered through Lee's system discloses the recited limitation “[t]he method of claim 13, wherein the response message further comprises at least one of the following: the identification of the specific instance of the first media content data that enables identification of a responder” of dependent claim 14.

iii. *Dependent Claim 15*

Dependent claim 15 recites, “[t]he method of claim 12, further comprising outputting of the first media content and second media content based on at least one criteria.”

According to Petitioner, “Lee discloses that information contained in ‘user profile databases 198’ includes criteria that dictate the output of multimedia device 20, including radio channels and advertisements available to each device.” Pet. 51 (citing Ex. 1004, 11:34–43; Ex. 1003 ¶ 157).

Petitioner notes that in one example, “the information in user profile databases 198 will ‘block[] out from view all unwanted [radio] formats and stations.’” Pet. 51 (citing Ex. 1004, 6:62–65; Ex. 1003 ¶ 158).

In another example, Petitioner notes that the “[i]nformation in advertising databases can be compared against a user’s purchasing interest profile through an adaptive profiler 200 so that advertisements inserted into delayed personalized digital broadcasts mesh with that individual’s buying interests.” Pet. 51 (citing Ex. 1004, 11:36–42).

Dr. Williams testifies that a person of ordinary skill in the art “would have understood that Lee’s ‘user profile databases 198’ correspond to the claimed ‘at least one criteria.’” Ex. 1003 ¶ 160. Dr. Williams also testifies that a person of ordinary skill in the art “would have understood that Lee’s disclosure that multimedia device 20 varies the output of both the audio

advertisement (for example) being broadcast and the advertisement-related data—based on information stored in Lee’s ‘user profile databases 198’—corresponds to the claimed ‘outputting of the first media content and second media content based on at least one criteria.’” Ex. 1003 ¶ 161.

“In fact,” Dr. Williams testifies, a person of ordinary skill in the art “would have understood that the use of the user profile databases 198 to ‘block[] out from view all unwanted [radio] formats and stations’—by itself—has the effect of ‘outputting . . . the first media content and second media content based on at least one criteria,’ as claimed.” *Id.*

Petitioner also argues that Lee “discloses that multimedia device 20 includes a ‘tuner 164,’ which ‘allows the user to broadly navigate all the channels of audio broadcasts and information services available on the multimedia device 20.’” Pet. 52 (citing Ex. 1004, 9:8–11; Ex. 1003 ¶ 162). Dr. Williams testifies that a person of ordinary skill in the art “would have understood that changing the channel also changes the enhanced advertisements received because those enhanced advertisements are related to the audio broadcast.” Ex. 1003 ¶ 163 (citing Ex. 1004, 10:20–30) (emphasis omitted). “Accordingly,” Dr. Williams testifies, “Lee’s disclosure of the navigation of the channels of audio broadcasts using tuner 164 corresponds to the claimed ‘outputting of the first media content and second media content based on at least one criteria.’” Ex. 1003 ¶ 164.

Patent Owner argues that “Lee does not give any instance where an item of information in the user profile database 198 is employed to govern outputting of both the ‘audio advertisement broadcast’ and the ‘advertisement-related data’ (action button labels or advertising logos). PO Resp. 48 (citing Ex. 2019 ¶ 122); PO Sur-reply 18–20.

We disagree with Patent Owner. Lee provides at least two examples where user-preference information stored in the “user profile databases” affects the transmission of the first and second media content to Lee’s multimedia device. In one example, Lee explains that the information in user profile databases 198 will “block[] out from view all unwanted [radio] formats and stations.” Ex. 1004, 6:62–65. In another example, Lee explains that “[i]nformation in advertising databases can be compared against a user’s purchasing interest profile through an adaptive profiler 200 so that advertisements inserted into delayed personalized digital broadcasts mesh with that individual’s buying interests.” Ex. 1004, 11:36–42. In each of these examples, Lee makes it clear that user profile databases 198 and tuner 164 govern the output of the first media content (i.e., the broadcast advertisements).

Dr. Williams testifies, and we agree, that Lee’s advertisement-related information is only displayed in conjunction with its associated advertisements. Ex. 1017 ¶ 52. Dr. Williams testifies that a person of ordinary skill in the art would understand that in Lee’s system, “there would be no need to display information relating to a different advertisement than the one that was currently playing” because “it is the playing of a specific advertisement to a user that is intended to spark the desire within that user to either obtain more information about the particular product being advertised or to buy the advertised product.” *Id.* (citing Ex. 1004, 13:61–67). “Thus,” Dr. Williams concludes, and we agree, “when an advertisement is, or is not, output based on a user’s preference, its associated information will likewise either be output or not.” *Id.* Dr. Williams’s analysis is consistent with the disclosure of Lee and persuasive.

Based on this record, including the testimony of Dr. Williams, which we credit, we are persuaded that Petitioner has demonstrated that Lee’s description of user profile databases 198 and adaptive profiler 200 with personalized digital broadcasts discloses the recited limitation “[t]he method of claim 12, further comprising outputting of the first media content and second media content based on at least one criteria” of dependent claim 15.

iv. *Dependent Claim 16*

Dependent claim 16 recites, “[t]he method of claim 12, further comprising storing at least one of the first media content[,] the second media content, the location of the electronic receiving device.”

Petitioner asserts that Lee discloses “multimedia device 20 preferably also contains and controls one or more digital storage devices 92 to which real-time broadcasts can be digitally recorded.” Pet. 52 (citing Ex. 1004, 8:51–55). Petitioner argues that this disclosure “corresponds to the claimed ‘storing at least one of the first media content[,] the second media content, the location of the electronic receiving device,’ as it teaches storing the first media content (audio broadcasts).” Pet. 52–53 (citing Ex. 1003 ¶¶ 166–167).

Patent Owner does not respond specifically to Petitioner’s evidence and arguments directed to dependent claim 16. *See* PO Resp. 48.

Based on this record, including the testimony of Dr. Williams, which we credit, we are persuaded that Petitioner has demonstrated that Lee’s description of digital storage devices 92 to which real-time audio broadcasts can be digitally recorded discloses the recited limitation “[t]he method of claim 12, further comprising storing at least one of the first media content[,] the second media content, the location of the electronic receiving device” of dependent claim 16.

i. Conclusion on Dependent Claims 13–16

Based upon consideration of the entire record, and for the reasons stated above, we are persuaded by Petitioner’s evidence and arguments, notwithstanding Patent Owner’s evidence and arguments, and determine that Petitioner has demonstrated by a preponderance of the evidence that dependent claims 13–16 are unpatentable under 35 U.S.C. § 102(b) as anticipated by Lee.

E. Other Asserted Grounds

Petitioner asserts claims 12–16 are unpatentable as obvious over Lee. Pet. 53. Petitioner asserts claims 12, 15, and 16 are anticipated and rendered obvious by Barnes under 35 U.S.C. §§ 102, 103. *Id.* at 54–71. Petitioner also asserts that claims 13, and 14 would have been obvious over the combined teachings of Barnes and the RBDS Standard. *Id.* at 72–77. However, because Petitioner has already shown that all of the challenged claims are unpatentable over Lee as anticipated, as discussed *supra*, we do not reach these additional asserted grounds.⁴ *See Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir. 1984) (“The Commission . . . is at perfect liberty to reach a ‘no violation’ determination on a single dispositive issue.”); *Boston Sci. Scimed, Inc. v. Cook Grp. Inc.*, 809 F. App’x 984, 990 (Fed. Cir. Apr. 30, 2020) (non-precedential) (recognizing that “[t]he Board has the discretion to decline to decide additional instituted grounds once the petitioner has prevailed on all its challenged claims”).

⁴ Because we do not reach Petitioner’s asserted ground based on Barnes and the RBDS Standard, we also dismiss as moot Petitioner’s motion to submit supplemental information (Paper 19) pertaining to the RBDS Standard.

III. CONCLUSION

For the foregoing reasons, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 12–16 of U.S. Patent No. 9,355,405 B2 are unpatentable on the bases set forth in the following table.⁵

Claims	35 U.S.C. §	References	Claims Shown Unpatentable⁶	Claims Not Shown Unpatentable
12–16	102(b)	Lee	12–16	
12–16	103(a)	Lee		
12, 15, 16	102(b)	Barnes		
12, 15, 16	103(a)	Barnes		
13, 14	103(a)	Barnes, RBDS Standard		
Overall Outcome			12–16	

⁵ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this Final 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).

⁶ As explained above, given our disposition of the anticipation ground based on Lee, we do not reach Petitioner’s alternative grounds based on Lee, Barnes, and the RBDS Standard. See *supra* Section II.E.

IV. ORDER

In consideration of the foregoing, it is hereby

ORDERED that Petitioner has demonstrated by a preponderance of the evidence that claims 12–16 of U.S. Patent No. 9,355,405 B2 are unpatentable;

FURTHER ORDERED that Petitioner’s motion to submit supplemental information (Paper 19) is *dismissed* as moot; and

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

IPR2021-00720
Patent 9,355,405 B2
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