

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

K/S HIMPP,
Petitioner,

v.

BRAGI GmbH,
Patent Owner.

IPR2023-00901
Patent 10,635,385 B2

Before LARRY J. HUME, STACEY G. WHITE, and
NORMAN H. BEAMER, *Administrative Patent Judges*.

BEAMER, *Administrative Patent Judge*.

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

I. INTRODUCTION

On May 10, 2023, K/S HIMPP (“Petitioner”) filed a Petition pursuant to 35 U.S.C. §§ 311–319 to institute an *inter partes* review of claims 1–16 of U.S. Patent No. 10,635,385 B2 (“the ’385 patent”). Paper 3 (“Pet”), 1. On August 23, 2023, BRAGIGmbH (“Patent Owner”) filed a Preliminary Response (“Prelim. Resp.”). Paper 11. Subsequently, with our authorization, the parties filed briefs on priority date issues. Paper 12 (“Reply”); Paper 13 (“Sur-Reply”).

The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted unless the information presented in the Petition and any preliminary response shows that “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” *See* 37 C.F.R. § 42.108 (2022).

For the reasons explained below, we determine that Petitioner has established a reasonable likelihood that it would prevail with respect to at least one challenged claim. Accordingly, we institute an *inter partes* review as to the challenged claims and grounds raised in the Petition.

II. BACKGROUND

A. *The ’385 Patent*

The ’385 patent, titled “Method And Apparatus For Interfacing With Wireless Earpieces,” was filed on November 12, 2016, issued on April 28, 2020, and claims priority to provisional application 62/255,309, filed November 13, 2015. Ex. 1001, codes (54), (22), (45), (60), 1:7–10. The ’385 patent incorporates the provisional application in its entirety.

Id. at 1:10. The parties accord the provisional application filing date (November 13, 2015) as the effective filing date of the '385 patent. Pet. 5; Prelim. Resp. 20.

The '385 patent is directed to wireless ear pieces, which include a housing and a wireless transceiver, and a software application executing on a computing device, such as a mobile device, having a display that provides a user interface to interact with the ear pieces and a visual representation of the ear pieces. Ex. 1001, code (57), Fig. 4, 4:41–45. Figure 6 is reproduced below.



FIG. 6

Figure 6 depicts an example of a screen display showing visual representations of left and right ear pieces 120 and 122, depicting the ear piece charge levels (at 48%) 124 and 126 of both ear pieces, and an activity menu 128 with various selectable functions. Ex. 1001, 2:30–32, 6:1–25. Embodiments of the ear pieces support music playback from audio files stored in memory, and provide activity monitoring and recording functionality based on sensors such as accelerometers, a pulse oximeter, blood pressure sensor, and other physiological or biological sensors. *Id.* at Fig. 3, 1:33–40, 3:23–45. The display of the mobile device can display tracking activity such as heart rate, number of steps taken, and distance travelled during activities such as running, jogging, biking, and swimming. *Id.* at Fig. 7, 6:32–47. A disclosed embodiment includes control capability using gestures such as tapping, swiping, or holding the ear piece. *Id.* at Figs. 3, 4, 3:54–58, 4:53–5:19. Also, the screen display of the mobile device can highlight the visual representation of an ear piece to associate a displayed control function with that ear piece. *Id.* at Figs. 4, 5, 4:46–53, 5:24–35.

B. Illustrative Claim

Independent claim 1 is reproduced below.

1. A system comprising:
 - at least one wireless ear piece comprising an ear piece housing and a wireless transceiver disposed within the ear piece housing;
 - a software application for executing on a computing device having a display associated therewith;
 - wherein the software application configured to display one or more screen displays on a display of the computing device;

wherein the software application provides a user interface for use by a user of the at least one wireless ear piece to interact with the at least one wireless ear piece; and

wherein the user interface is configured to display a visual representation of the at least one wireless ear piece on at least one of the one or more screen displays, the visual representation indicative of a function or property of the at least one wireless ear piece communicated from the at least one wireless earpiece to the computing device.

Ex. 1001, 7:17–36.

C. References

Petitioner relies on the following references (Pet. 6–7):

- Hensen, US 9,781,514 B2 (“Hensen Patent”). Ex. 1003.
- September 2015 *FreeWavz Demo*, YouTube video (“Hensen Video”). Exs. 1004, 1010.
- User Manual: LG Heart Rate Earphones (“LG Manual”). Ex. 1005.
- Lee, US 2014/0189600 A1 (“Lee”). Ex. 1006.
- Kickstarter.com, *November 22 Progress Report* (“Hensen Kickstarter”). Ex. 1007.

In addition, Petitioner filed the Declaration of Dr. Brian W. Anthony in support of the Petition.¹ Ex. 1002 (“Anthony Decl.”).

¹ Patent Owner argues that Dr. Anthony’s Declaration should be entitled to no weight because it is “almost entirely a word-for-word recitation of the Petition.” Prelim. Resp. 43. However, at this stage of the proceeding, we have no reason to conclude that the analysis therein is not based on a proper independent review of the record.

D. Asserted Challenges to Patentability

Petitioner challenges the patentability of claims 1–16 of the ’385 patent on the following basis (Pet. 7):

Claims Challenged	35 U.S.C. §²	References
1–4, 9–16	103	Hensen Patent, Hensen Video
5–7	103	Hensen Patent, Hensen Video, LG Manual
8	103	Hensen Patent, Hensen Video, Lee
1–4, 9–16	103	Hensen Patent, Hensen Kickstarter
5–7	103	Hensen Patent, Hensen Kickstarter, LG Manual
8	103	Hensen Patent, Hensen Kickstarter, Lee

E. Real Parties in Interest

Petitioner identifies K/S HIMPP, Demant A/S, GN Store Nord A/S, Sound Design Technologies Ltd., IntriCon Corporation, and Rion Co., Ltd. as additional real parties-in-interest. Pet. 3. Patent Owner identifies itself as the real party in interest. Paper 6, 2.

F. Related Proceedings

The parties state that they are not aware of any related proceedings involving the ’385 patent. Pet. 3; Paper 6, 2.

² The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), included amendments to 35 U.S.C. §§ 102 and 103 that became effective before the effective filing date of the application for the ’385 patent. Therefore, we apply the provisions of the AIA for this proceeding.

III. ANALYSIS OF PETITIONER'S CHALLENGE

A. *Legal Standards*

To institute an *inter partes* review, Petitioner must show a reasonable likelihood that at least one claim is unpatentable. 35 U.S.C. § 314(a). Under § 314, the Board is required to make a binary choice to institute review or not. *SAS Institute Inc. v. Iancu*, 138 S.Ct. 1348, 1355 (2018). “In an IPR, the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (2012) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)). This burden of persuasion never shifts to the patent owner. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (discussing the burden of proof in *inter partes* review).

Pursuant to the AIA, a patent claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. 35 U.S.C. § 103. The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when in evidence, objective indicia of non-obviousness (also called secondary considerations), such as commercial success, long-felt but unsolved needs, and failure of others. *Graham v. John*

Deere Co., 383 U.S. 1, 17–18 (1966). We analyze grounds based on obviousness in accordance with the above-stated principles.

B. Level of Skill in the Art

In determining whether an invention would have been obvious at the time it was made, 35 U.S.C. § 103 requires us to resolve the level of ordinary skill in the pertinent art as of the effective filing date of the claimed invention. *Graham*, 383 U.S. at 17. The person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). Factors that may be considered in determining the level of ordinary skill in the art include, but are not limited to, the types of problems encountered in the art, the sophistication of the technology, and educational level of active workers in the field. *Id.* In a given case, one or more factors may predominate. *Id.*

Petitioner asserts that a person of ordinary skill in the art as of the effective filing date of the claimed invention “would have had a Bachelor’s Degree in Electrical Engineering or Computer Science, or equivalent experience, and one to two years of experience in the field of wireless electronic devices and/or graphical user interfaces, particularly as those systems relate to software applications used to interface with wireless earpieces.” Pet. 23 (citing Anthony Decl. ¶ 22). Patent Owner does not address this issue. *See generally* Prelim. Resp.

We find Petitioner’s proposal to be consistent with the level of ordinary skill in the art that is reflected by the ’385 patent and the asserted prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001);

GPAC, 57 F.3d at 1579. On this record, the level of ordinary skill is neither in dispute nor dispositive of any challenge. For purposes of this Decision, we apply Petitioner’s articulation.

C. *Claim Construction*

The Petition was accorded a filing date of May 10, 2023. Paper 4. In an *inter partes* review for a petition filed on or after November 13, 2018, a claim “shall be construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b).” 37 C.F.R. § 42.100(b). We apply the claim construction standard from *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc).

Claim terms need only be construed 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).

Petitioner submits that no claim terms need to be construed. Pet. 12. Patent Owner does not address this issue. *See generally* Prelim. Resp. For this Decision, we do not address any claim construction issues.

D. *The Prior Art Status of the Hensen Patent*

The Hensen Patent, titled “Stereo Audio Headphone Apparatus,” was filed on October 8, 2015 and issued on October 3, 2017. Ex. 1003, codes (54), (22), (45). The Hensen Patent application is a continuation-in-part, and claims the benefit under 35 U.S.C. § 120, of U.S. patent application 12/731,397, filed March 25, 2010 (“Hensen CIP”). Ex. 1003, code (63), 1:5–9; Exs. 1008, 1027. The Hensen Patent application also claims the benefit under 35 U.S.C. § 119(e) of Provisional Patent Application 62/061,497, filed October 8, 2014 (“Hensen Provisional”). Ex. 1003, code

(60), 1:11–15; Ex. 1009. The Hensen Patent incorporates both the Hensen CIP and the Hensen Provisional by reference in their entirety. Ex. 1003, 1:5–17.

In the Petition, Petitioner asserts that the Hensen Patent is prior art pursuant to 35 U.S.C. § 102(a)(2) because its October 8, 2015 filing date precedes the November 13, 2015 effective filing date of the '385 patent. Pet. 5–6. Patent Owner challenges the prior art status of the Hensen Patent, asserting that the 35 U.S.C. § 102(b)(2)(B) applies, which provides:

A disclosure shall not be prior art to a claimed invention under subsection (a)(2) if . . .

(B) the subject matter disclosed had, before such subject matter was effectively filed under subsection (a)(2), been publicly disclosed by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor.

Patent Owner provides evidence that, no later than September 10, 2015, the '385 patent inventor publicly disclosed the same subject matter that Petitioner relies on in the Hensen Patent, which was not filed until October 8, 2015. Prelim. Resp. 2, 17–37 (citing Exs. 2005–2010).

Petitioner responds that the effective filing date of the Hensen Patent is the March 25, 2010 filing date of the Hensen CIP, or at least the October 8, 2014 filing date of the Hensen Provisional, given that the Hensen Patent incorporates by reference, and claims the benefit of, both applications. Reply 1–2. Petitioner explains that, for a priority application to support an effective filing date, it “must ‘describe[] the subject matter’ relied upon in the reference patent document as prior art.” *Id.* at 2 (citing MPEP § 2154.01(b); *Penumbra, Inc. v. RapidPulse, Inc.*, IPR2021-01466, Paper 34, 32 (PTAB Mar. 10, 2023) (“*Penumbra*”)); *see also* 35 U.S.C.

§ 102(d). Petitioner provides a chart comparing the disclosures relied on in the Hensen Patent to corresponding disclosures in the Hensen CIP, asserting that this establishes that this requirement is met insofar as the March 25, 2010 Hensen CIP filing date is concerned.³ *Id.* at 2. Petitioner also submits that the requirement is also met for the October 8, 2014 filing date of the Hensen Provisional, given that the Hensen Provisional incorporates the Hensen CIP by reference. *Id.* at 3 n.2 (citing Ex. 1009 ¶ 36).

Patent Owner disputes Petitioner’s reliance on these earlier filing dates, because Petitioner did not rely on these dates in its opening Petition, and indeed stated that “Petitioner does not rely on the filing dates of Hensen-Parent or Hensen-Provisional to establish that Hensen-Patent is prior art to the ’385 Patent.” Sur-Reply 1 (citing Petition, 6). Patent Owner also argues that the specifications of the Hensen Patent and Hensen CIP are not identical, and challenges Petitioner’s assertion that the disclosures of the Hensen Provisional and the Hensen Patent are “effectively identical.” *Id.* at 2.

Although the statement in the Petition of non-reliance on the filing dates of the Hensen Provisional and Hensen CIP was infelicitous, Petitioner’s sole reliance in the Petition on the filing date of the Hensen Patent met its initial burden of production in establishing that the Hensen

³ Petitioner also provides a chart comparing Hensen Patent claim 1 to the disclosures of the Hensen CIP. Reply 3–4. However, under the AIA, this is not necessary. *See Penumbra*, at 29–32. Petitioner also disputes that the asserted public disclosures that Patent Owner relies on pursuant to 35 U.S.C. § 102(b)(2)(B) were not by, or obtained from, the inventor, and further argues that some aspects of the subject matter of the Hensen Patent are the not the same as that of the earlier disclosures. *Id.* at 4–5. We need not address these arguments for purposes of this Decision.

Patent was prior art. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1379 (Fed. Cir. 2015). Given Petitioner's citation of the Hensen Patent and its filing date, the burden of production then shifted to Patent Owner to antedate the reference; upon the occurrence of which in the Preliminary Response, the burden of production returned to Petitioner to prove that the Hensen Patent was entitled to the benefit of an earlier filing date. *Dynamic Drinkware*, 800 F.3d at 1380. We authorized Petitioner to file a Reply to respond to Patent Owner's assertion of priority, by which Petitioner asserted reliance on the Hensen Provisional and Hensen CIP filing dates. Ex. 1026. Thus, we determine that Petitioner has not waived reliance on those earlier filing dates.

In addition, our review of the portions of the Hensen CIP referenced by Petitioner in its comparison to the disclosures relied on in the Hensen Patent (at Reply 2) reveals that they are substantially identical, notwithstanding Patent Owner's unsupported attorney argument to the contrary. Patent Owner's assertion regarding the disclosures of the Hensen Provisional compared to the Hensen Patent are also without merit given that the latter incorporates the Hensen CIP by reference. Ex. 1009 ¶ 36.

Accordingly, having reviewed the Parties' arguments and evidence in this present record, we determine Petitioner demonstrates a reasonable likelihood that the Hensen Patent is prior art pursuant to 35 U.S.C. § 102(a)(2).

E. Petitioner's Challenges to the '385 Patent

1. Alleged Obviousness of Claims 1–4, 9–16 Over the Hensen Patent and the Hensen Video

Petitioner challenges claims 1–4 and 9–16 as obvious over the combination of the Hensen Patent and the Hensen Video. Pet. 24–85.

a) The Hensen Patent

The Hensen Patent, the prior art status of which is discussed above, is directed to a stereo audio headphone apparatus including master and slave headphone units with wireless communication capability, and a remote control unit that can wirelessly transmit commands to the headphone units. Ex. 1003, code (57), Fig. 1, 8:14–15, 13:6–7. Figure 1 of Hensen is reproduced below.

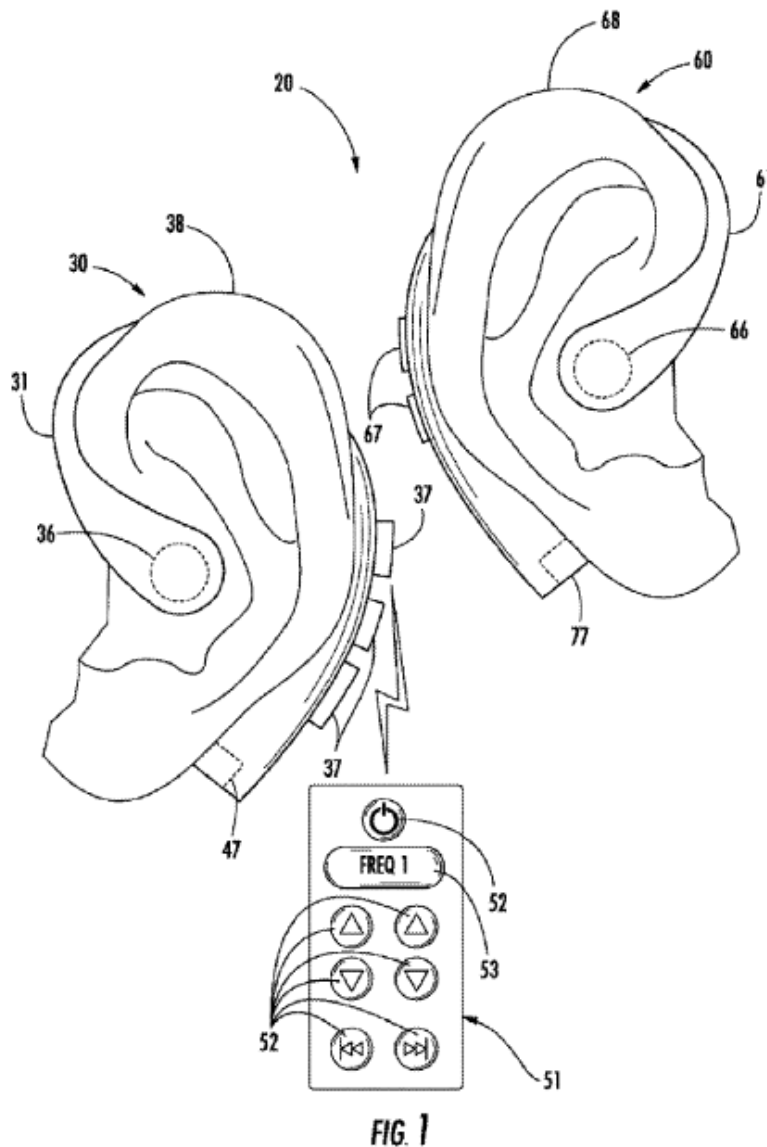
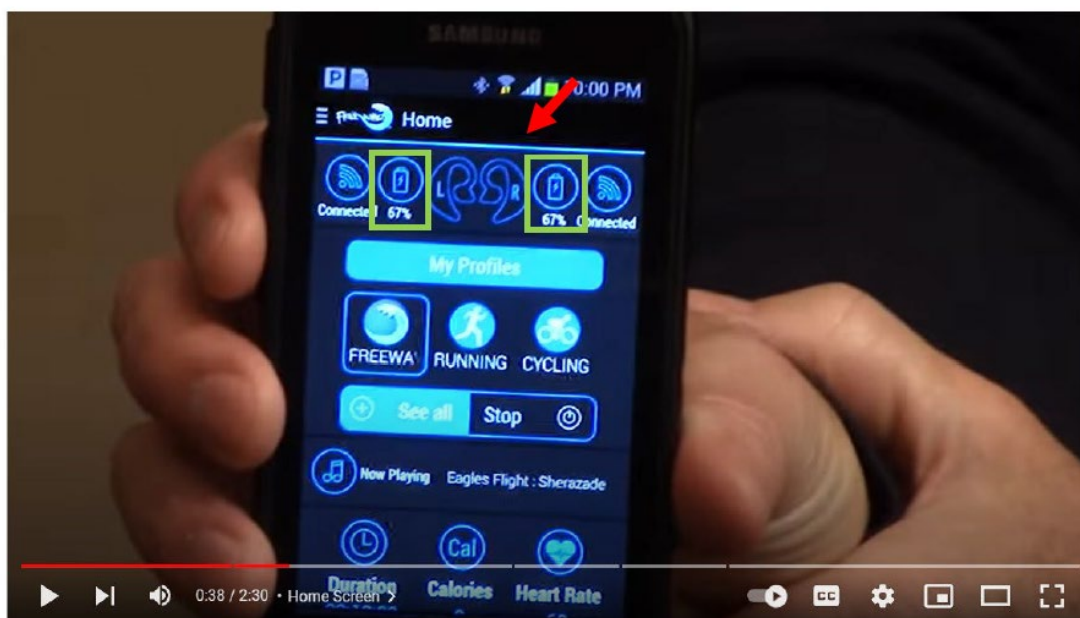


Figure 1 depicts stereo headphone apparatus 20 including master headphone 30 and slave headphone 60 which are carried behind the ears of the user, which communicate wirelessly, and which can play audio content.

Ex. 1003, 4:55–6:23. Remote control unit 51 transmits commands to the headphones and includes a display 53 that may display information about the stereo audio source or information about the stereo audio headphones such as volume and/or battery power remaining. *Id.* at 8:14–31.

b) The Hensen Video

The Hensen Video shows the named inventor of the Hensen Patent demonstrating the capabilities of a wireless earpiece system with a left and right wireless earpiece. Pet. 15–16 (citing Ex. 1005 (video file); Anthony Decl. ¶¶ 32, 37); *see also* Ex. 1010 (screenshots from video). Petitioner provides screenshots of frames from the video and of Internet pages from YouTube®, Twitter®, and Kickstarter® websites, and a declaration from an Internet Archive Records Request Processor, in support of Petitioner’s assertion that the Hensen Video was published on YouTube®, Twitter®, and Kickstarter® in September, 2015.⁴ *Id.* at 17–22 (citing Exs. 1005, 1012–1014, 1023; Anthony Decl. ¶ 33); *see also* Ex. 1010. A screenshot from frame 0:38 of the Hensen Video is set forth below.



⁴ Patent Owner does not address the prior art status of the Hensen Video, and based on our review of the record, for purposes of this decision we accord it prior art status pursuant to 35 U.S.C. § 102(a)(1). *See Acco Brands v. Think Products*, IPR2015-01167, Paper 40 at 15–18 (Oct. 11, 2016).

The screenshot shows the user interface for the wireless earpiece system on a smartphone display, including a visual representation of the earpieces and an indication of remaining battery life (67%). Pet. 15–16 (citing Anthony Decl. ¶¶ 32, 37).

Petitioner argues that a “POSITA would have been motivated to combine [the teachings the Hensen Patent and the Hensen video] by modifying Hensen-Patent’s system so that it’s remote control device 51 would be a smartphone running Hensen-Video’s software application — with a reasonable expectation of success.” Pet. 34 (citing Anthony Decl. ¶ 56). Petitioner argues that the disclosures are expressly related given the common inventorship/authorship, associated with the same commercial product, describe similar systems that use a remote control device to interact with wireless earpieces, including reading pulse oximetry data, used during physical activities such as running and cycling, supporting music playback functionality, and having the same shape and aesthetics. *Id.* at 34–38 (citing Ex. 1003, code (72), Fig. 1, 5:41–44, 8:17–20, 8:24–34, 12:65–13:5; Ex. 1004, frames 0:09–0:19, 0:38, 0:48–1:09, 2:23; Ex. 1009 ¶¶ 14, 35; Exs. 1015–1017; Anthony Decl. ¶¶ 57–59). In addition, Petitioner argues that the Hensen Video specifically discloses the benefits of using a smartphone computing device running a software application as a remote control unit in a wireless earpiece system, and therefore a person of ordinary skill in the art would have been motivated to modify the Hensen Patent’s wireless earpiece system to benefit from the Hensen Video’s teachings. *Id.* at 38–39 (citing Ex. 1004, frames 0:32–0:38, 0:43–0:48, 1:09–1:24; Ex. 1015; Anthony Decl. ¶ 60); *see also* Pet. 41–42, 47, 50, 53–54 (citing Anthony Decl. ¶¶ 65, 72, 77, 83).

Patent Owner does not specifically challenge the motivation for combining the Hensen Patent and the Hensen Video. *See generally* Prelim. Resp. For purposes of this Decision, we determine that Petitioner has provided sufficiently articulated reasoning with rational underpinning for the proffered combination.

c) Independent Claims 1, 13, and 14

For the system preamble of claim 1, Petitioner relies on the disclosure in the Hensen Patent and the incorporated Hensen Provisional of systems for interacting with wireless earpieces. Pet. 24–26 (citing Ex. 1003, Fig. 1, 8:14–34; Ex. 1009 ¶¶ 1, 14, 35, 42; Anthony Decl. ¶¶ 44–45).⁵

For the claim 1 requirement, “at least one wireless ear piece comprising an ear piece housing and a wireless transceiver disposed within the ear piece housing,” Petitioner relies on the disclosure in the Hensen Patent of wireless earpieces including an earpiece housing and wireless transceiver. Pet. 26–29 (citing Ex. 1003, Figs. 1, 2, 2:24–31, 2:36–41, 4:55–65, 5:9–10, 5:63–67, 6:1–6, 8:14–34, 12:42–46, 12:52–55, 13:6–8, 13:34–45; Ex. 1009, Figs. 1–4, ¶¶ 1, 14, 17–19, 21, 35, 42; Anthony Decl. ¶¶ 46–50).

For the claim 1 requirement, “a software application for executing on a computing device having a display associated therewith,” Petitioner relies on the disclosures in the Hensen Patent and Hensen Video of remote control devices that send commands to the earpieces and display received information using software applications. Pet. 30–33 (citing Ex. 1003, Fig. 1,

⁵ For this Decision, we make no determination whether or not the preambles of independent claims 1, 13, and 14 are limiting.

8:14–34; Ex. 1004, frames 0:17, 0:09–0:19, 0:32–0:38; Ex. 1009 ¶¶ 1, 14, 35, 42; Anthony Decl. ¶¶ 51–55).

For the claim 1 requirement, “wherein the software application configured to display one or more screen displays on a display of the computing device,” Petitioner relies on the displays shown in the Hensen Video. Pet. 40–42 (citing Ex. 1004, frames 0:32–0:38, 0:48–1:09; Anthony Decl. ¶¶ 62–65).

For the claim 1 requirement, “wherein the software application provides a user interface for use by a user of the at least one wireless ear piece to interact with the at least one wireless ear piece,” Petitioner relies on the disclosures in the Hensen Patent and Hensen Video software that sends commands to the earpieces via user interfaces. Pet. 42–47 (citing Ex. 1003, Fig. 1, 8:14–34; Ex. 1004, frames 0:09–0:19, 0:28–1:28; Ex. 1009 ¶¶ 1, 14, 35, 42; Anthony Decl. ¶¶ 66–72).

For the claim 1 requirement,

wherein the user interface is configured to display a visual representation of the at least one wireless ear piece on at least one of the one or more screen displays, the visual representation indicative of a function or property of the at least one wireless ear piece communicated from the at least one wireless earpiece to the computing device,

Petitioner relies on the disclosure in the Hensen Video of displays that include a visual representation of the earpieces and, for example, their remaining battery life. Pet. 48–54 (citing Ex. 1004, frames 0:32–0:38, 2:23; Anthony Decl. ¶¶ 73–83).

Independent claim 13 is a system claim that has similar requirements to claim 1, and additionally requires receiving user input, communicating input data to the earpieces, and “performing an action using at least one of

the wireless ear pieces in response to receiving the data.” Ex. 1001, 8:15–30. Petitioner’s challenge to claim 13 tracks that of claim 1, and further relies on disclosures of the Hensen Patent and Hensen Video of provisions for user input, communicating data to earpieces, and performing actions in the earpieces such as volume control, stereo audio source selection, skipping to another song, or fast-forwarding through a song. Pet. 72–76 (citing Ex. 1003, 8:14–34; Ex. 1004, frames 0:48–1:09; Ex. 1009 ¶¶ 14, 35, 42; Anthony Decl. ¶¶ 110–119).

Independent claim 14 is also a system claim that has similar requirements to claim 1, and additionally requires communicating data from the earpieces to the computing device, and “updating the screen displays on the display of the computing device using the data.” Ex. 1001, 8:31–44. Petitioner’s challenge to claim 14 tracks that of claim 1, and further relies on disclosures of the Hensen Patent and Hensen Video of provisions for data (e.g., volume, battery power remaining, pulse oximetry data, heart rate data) transmitted wirelessly from the earpieces to a remote control device, and displayed on the device. Pet. 77–83 (citing Ex. 1003, 8:24–34; Ex. 1004, frames 0:32–0:38, 0:43–1:24; Ex. 1009 ¶¶ 1, 14, 35, 42; Anthony Decl. ¶¶ 120–132).

d) Dependent Claims 2–4, 9–12, and 15–16

Claim 2 depends from claim 1 and further requires that “the at least one wireless earpiece comprises a physiological sensor.” Ex. 1001, 7:37–38. Petitioner relies on the disclosure in the Hensen Provisional (incorporated into the Hensen Patent) and the Hensen Video of including a pulse oximeter in the earpiece housing. Pet. 54–59 (citing Ex. 1003, 1:11–17; Ex. 1004,

frames 0:09–0:19, 0:48–1:09; Ex. 1009, Fig. 4, ¶¶ 1, 14, 17, 21–23, 25, 26, 29, 30, 33, 34, 36, 42, 47, 50; Anthony Decl. ¶¶ 84–88).

Claim 3 depends from claim 2 and further requires that “the software application provides for tracking one or more physical activities using the physiological sensor.” Ex. 1001, 7:39–41. Claim 4 depends from claim 3 and further requires that “the physical activities are selected from a set consisting of running, biking, and swimming.” Ex. 1001, 7:42–44.

Claim 15 depends from claim 14 and further requires that “the data comprises physiological data.” Ex. 1001, 8:45–46. Claim 16 depends from claim 15 and further requires that “the physiological data is heart rate data.” Ex. 1001, 8:47–48. For these claims, Petitioner relies on the disclosure in the Hensen Patent and the Hensen Video of using sensors such as a pulse oximeter during running, cycling, and swimming. Pet. 59–68, 84–85 (citing Ex. 1003, 8:24–34, 13:6–16; Ex. 1004, frames 0:09–0:19, 0:38, 0:43–1:24; Ex. 1009 ¶¶ 1, 14, 35, 42; Anthony Decl. ¶¶ 89–103, 133–134).

Claim 9 depends from claim 1 and further requires that “the at least one wireless ear piece comprises onboard storage for storing audio files.” Ex. 1001, 8:6–7. Claim 10 depends from claim 1 and further requires that “the at least one wireless ear piece is configured to store at least one playlist of audio files.” Ex. 1001, 8:8–10. Petitioner relies on the disclosure in the Hensen Patent of onboard storage of audio files, including playlists, in the earpiece. Pet. 68–70 (citing Ex. 1003, Figs. 1, 2, 4:66–5:8, 5:41–44, 8:17–20; Anthony Decl. ¶¶ 104–106).

Claim 11 depends from claim 1 and further requires that “the software application provides for connecting the at least one wireless ear piece with the computing device.” Ex. 1001, 8:11–13. Petitioner relies on the

disclosure in the Hensen Video of pairing the earpieces to a smart phone. Pet. 70–71 (citing Ex. 1004, frames 0:09–0:19; Anthony Decl. ¶¶ 107–108).

Claim 12 depends from claim 11 and further requires that “the computing device is a mobile device.” Ex. 1001, 8:14–15. Petitioner relies on the disclosure in the Hensen Provisional (incorporated into the Hensen Patent) and the Hensen Video of the use of mobile devices. Pet. 71–72 (citing Ex. 1004, frames 0:09–0:19; Ex. 1009 ¶ 35; Anthony Decl. ¶ 109).

2. Alleged Obviousness of Claims 5–7 Over the Hensen Patent, the Hensen Video, and the LG Manual

Petitioner challenges claims 5–7 as obvious over the combination of the Hensen Patent, the Hensen Video, and the LG Manual. Pet. 85–91. Petitioner asserts that the LG Manual was available for download on LG’s website as of May 14, 2014.⁶ *Id.* at 86, n.1 (citing Exs. 1019–1021; Anthony Decl. ¶ 136).

Claim 5 depends from claim 1 and further requires that “the representation visual representation includes lighting of the at least one wireless ear piece.” Ex. 1001, 7:45–47. Claim 6 depends from claim 5 and further requires that “the lighting is associated with the function or property of the at least one wireless ear piece.” Ex. 1001, 7:48–50. Claim 7 depends from claim 6 and further requires that “the property is remaining battery life.” Ex. 1001, 8:1–2. For these claims, Petitioner relies on the disclosure in the LG Manual of a visual representation of left and right earpieces including coloring the representations when the earpieces are connected,

⁶ Patent Owner does not address the prior art status of the LG Manual, and based on our review of the current record, for purposes of this decision we accord it prior art status pursuant to 35 U.S.C. § 102(a)(1).

with associated indication of battery life. Pet. 86–91 (citing Ex. 1005, 19, 21–22, 24, 31, 36; Anthony Decl. ¶¶ 135–146).

3. Alleged Obviousness of Claim 8 Over the Hensen Patent, the Hensen Video, and Lee

Petitioner challenges claim 8 as obvious over the combination of the Hensen Patent, the Hensen Video, and Lee. Pet. 92–99. Lee, titled “Display Apparatus And Method For Controlling Display Apparatus Thereof,” was filed on December 16, 2013 and published on July 3, 2014. Ex. 1006, codes (54), (22), (43).

Claim 8 depends from claim 1 and further requires that “the user interface is further configured to display available gestures associated with controlling the at least one wireless ear piece.” Ex. 1001, 8:3–5. In the combination, Petitioner relies on the disclosure in Lee of displaying gestures used to control functions of a wireless earpiece. Pet. 92–99 (citing Ex. 1003, 5:37–47, 8:24–34; Ex. 1004, frames 0:09–0:19, 0:32–0:38; Ex. 1006, Figs. 3, 6A, ¶¶ 10, 24, 47, 77, 96; Ex. 1009 ¶¶ 1, 14, 35, 42; Anthony Decl. ¶¶ 147–159).

4. Alleged Obviousness of Claims 1–4 and 9–16 Over the Hensen Patent and the Hensen Kickstarter; of Claims 5–7 Over the Hensen Patent, the Hensen Kickstarter, and the LG Manual; and of Claim 8 Over the Hensen Patent, the Hensen Kickstarter, and Lee

Petitioner repeats its challenges of the claims, substituting the Hensen Kickstarter reference for the Hensen Video. Pet. 99–107. Petitioner asserts the Hensen Kickstarter is a printed publication that was posted on

Kickstarter® on November 22, 2014.⁷ *Id.* at 99–100 (citing Exs. 1007, 1023; Anthony Decl. ¶¶ 160–161).

The Hensen Kickstarter discloses essentially the same material as the Hensen Video, and Petitioner’s challenges for these grounds substantially tracks the corresponding grounds discussed above. *Id.* at 22–23, 100–107.

*F. Patent Owner’s Preliminary Response
Regarding Petitioner’s Challenges*

As discussed above in Section III.D, in response to Petitioner’s challenges, Patent Owner argues that the Hensen Patent is not prior art. However, as discussed, we are persuaded that Petitioner has shown sufficiently for this stage of the proceeding that the Hensen Patent should be accorded prior art status.

Patent Owner also asserts that Petitioners have conceded that “Patent Owner’s own disclosure predating [the] Hensen-Patent, which as shown in the POPR teaches the ’385 Patent, is ‘not the same as that of Hensen-Patent.’” Sur-Reply 3 (citing Reply 5). Thus, argues Patent Owner, “either (a) Hensen-Patent does not disclose the claimed inventions of the ’385 Patent — and therefore it is not prior art — or (b) Hensen-Patent contains at least the same subject matter as the ’385 Patent and Bragi’s prior disclosure.” *Id.* at 4. This argument misconstrues the record.

Petitioner argued that the prior art exception of 35 U.S.C. § 102(b)(2) did not apply to the prior disclosures on which Patent Owner relies because the software application and user interface of the prior disclosures pertained

⁷ Patent Owner does not address the prior art status of the Hensen Kickstarter, and based on our review of the current record, for purposes of this decision we accord it prior art status pursuant to 35 U.S.C. § 102(a)(1).

to an “alternative species” compared to that of the Hensen Patent. Reply 5 (comparing Ex. 1003, Fig. 1, 8:14–34 with Prelim. Resp. 25–27 (citing Ex. 2006); also citing MPEP § 717.01(b)(2)). Whether Petitioner was correct in arguing that these disclosures were different species, such assertion does not negate that both fall within the scope of the ’385 claims.

Patent Owner also argues that there are objective indicia of nonobviousness that require denial of institution. Prelim. Resp. 38–43. Patent Owner cites various articles praising Patent Owner’s “The Dash” product, which Patent Owner asserts embodies the subject matter of the ’385 patent claims.⁸ *Id.* at 38–41 (citing Exs. 2011–2016).

Patent Owner argues that it has established a nexus between the objective evidence of nonobviousness and the novel features of the claimed invention, because “The Dash” product is coextensive with the claimed features and thus, the cited industry praise is presumptively attributed to the patented invention. Prelim. Resp. 41. As Patent Owner recognizes, to give substantial weight to objective indicia of nonobviousness, a proponent must establish a nexus between the evidence and the merits of the claimed

⁸ Patent Owner also submits a quotation from the group that was developing a commercial embodiment of the Hensen-related references that Petitioner relies on, to the effect that the development team was encountering difficulties with the pulse oximeter feature of the product. Prelim. Resp. 41–43. However, Patent Owner’s citation in support of this quotation (Ex. 1007) does not contain such a quote, and we are unable to find this quotation in the record. In any event, as discussed above, at this stage we have determined that there is a reasonable likelihood that the Hensen prior art teaches or suggests the claimed invention, and at this stage we further determine that when all the current evidence is weighed, the weight of the obviousness evidence from Hensen is greater than the weight of the objective evidence presented.

invention. *ClassCo, Inc. v. Apple, Inc.*, 838 F.3d 1214, 1220 (Fed. Cir. 2016). Nexus is a legally and factually sufficient connection between the objective evidence and the claimed invention, such that the objective evidence should be considered in determining non-obviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). “[T]here is no nexus unless the evidence presented is ‘reasonably commensurate with the scope of the claims.’” *ClassCo*, 838 F.3d at 1220 (quoting *Rambus Inc. v. Rea*, 731 F.3d 1248, 1257 (Fed. Cir. 2013)).

A patentee is entitled to a presumption of nexus “when the patentee shows that the asserted objective evidence is tied to a specific product and that product ‘embodies the claimed features, and is coextensive with them.’” *Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1373 (Fed. Cir. 2019) (quoting *Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1072 (Fed. Cir. 2018)). “[T]he patentee retains the burden of proving the degree to which evidence of secondary considerations tied to a product is attributable to a particular claimed invention.” *Fox Factory*, 944 F.3d at 1378. The Federal Circuit has held that “if the marketed product embodies the claimed features, and is coextensive with them, then a nexus is presumed and the burden shifts to the party asserting obviousness to present evidence to rebut the presumed nexus.” *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1130 (Fed. Cir. 2000).

“[T]he purpose of the coextensiveness requirement is to ensure that nexus is only presumed when the product tied to the evidence of secondary considerations is the invention disclosed and claimed.” *Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, Paper 33 at 32 (PTAB Jan. 24, 2020) (precedential) (citing *Fox Factory*, 944 F.3d at 1374) (internal quotations

omitted). “A patent claim is not coextensive with a product that includes a ‘critical’ unclaimed feature that is claimed by a different patent and that materially impacts the product’s functionality.” *Id.* (citing *Fox Factory*, 944 F.3d at 1375) (internal quotations omitted).

On the present record, Patent Owner has not established that “The Dash” product is coextensive with the ’385 patent claims. On the face of the cited articles, it is unclear whether the praise relied on was due to extraneous factors other than the claimed invention, such as unclaimed or non-novel features of product. *Demaco*, 851 F.2d at 1392; *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1312 (Fed. Cir. 2006). Further, there is no mention of whether the products provide a visual representation of the earpieces, a critical claimed feature that persuaded the Examiner to grant the claims. *See* Pet. 10–11. As the Federal Circuit has stated “objective evidence of non-obviousness must be commensurate in scope with the claims which the evidence is offered to support.” *Oren Techs., LLC v. Proppant Express Invs. LLC*, No. 2019-1778, 2021 WL 3120819, at *6 (Fed. Cir. July 23, 2021) (citing *Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1072 (Fed. Cir. 2018)). On this record, we find the evidence insufficient to establish nexus in light of the lack of evidence regarding a key feature in the claim, and the lack of evidence regarding whether the purported praise was due to a claimed or novel feature of the product.

Therefore, at this stage of the proceeding, we do not accord substantial weight to Patent Owner’s proffered evidence of objective indicia of nonobviousness.

Patent Owner does not further respond to Petitioner’s specific arguments comparing the asserted prior art combinations to the ’385 claims.

See generally Prelim. Resp. Nonetheless, the burden remains on Petitioner to demonstrate unpatentability. *See Dynamic Drinkware*, 800 F.3d at 1378. Having reviewed the Parties' arguments and supporting evidence in this present record, we determine the Petition demonstrates a reasonable likelihood that Petitioner will prevail in establishing that claims 1–4 and 9–16 are unpatentable under 35 U.S.C. § 103(a) over the combination of Hensen Patent and the Hensen Video or the Hensen Kickstarter, that claims 5–7 are unpatentable under 35 U.S.C. § 103(a) over the combination of the Hensen Patent, the Hensen Video or the Hensen Kickstarter, and the LG Manual, and that claim 8 is unpatentable under 35 U.S.C. § 103(a) over the combination of the Hensen Patent, the Hensen Video or the Hensen Kickstarter, and Lee.

IV. CONCLUSION

After considering the evidence and arguments presented in the Petition and the Preliminary Response, Petitioner has established a reasonable likelihood of prevailing on its assertion that at least one claim of the '385 patent is unpatentable. Accordingly, we institute an *inter partes* review on all the challenged claims and all of the grounds presented in the Petition. At this stage of the proceeding, we have not made a final determination as to the patentability of these challenged claims.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that pursuant to 35 U.S.C. § 314, *inter partes* review is instituted as to the challenged claims of the '385 patent with respect to all grounds of unpatentability presented in the Petition; and

FURTHER ORDERED that *inter partes* review is commenced on the entry date of this Order, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial.

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