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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LUXOTTICA OF AMERICA INC.,

Petitioner,

v.

E-VISION SMART OPTICS, INC.,

Patent Owner

Case No. IPR2025-00216

Patent No. 11,487,138

PETITIONER'S REPLY IN SUPPORT OF PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 11,487,138

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1006	U.S. Patent App. Pub. No. 2011/0214082 to Osterhout et al. ("Osterhout")
1007	U.S. Patent App. Pub. No. 2009/0006846 to Rosenblatt ("Rosenblatt")
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1012	U.S. Patent No. 6,185,537 to Oh et al. ("Oh")
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1017	U.S. Patent App. Pub. No. 2006/0132382 to Jannard et al. ("Jannard-382")
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1019	Int'l Patent App. Pub. No. 01/95625 to Calderone et al. ("Calderone")
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1024	U.S. Patent App. Pub. No. 2012/0016678 to Gruber et al. (“Gruber”)
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1027	File History of U.S. Patent App. No. 61/583940
1028	U.S. Patent App. Pub. No. 2010/0272304 to Thiel et al. (“Thiel”)
1029	U.S. Patent App. Pub. No. 2010/0330908 to Maddern et al. (“Maddern”)
1030	U.S. Patent App. Pub. No. 2008/0001735 to Tran (“Tran”)
1031	U.S. Patent App. Pub. No. 2019/0081937 to Lu et al. (“Lu”)
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1033	The Story of Bluetooth: The Slow Road to Becoming an Industry Standard, by Lianne Firth, Published July 2021, https://www.allaboutcircuits.com/news/bluetooth-technology-the-slow-road-to-an-industry-standard
1034	Apple Reinvents the Phone with iPhone, Press Release, January 2007, https://www.apple.com/newsroom/2007/01/09Apple-Reinvents-the-Phone-with-iPhone
1035	Apple iPhone Bluetooth Headset Review, TechCrunch, Dated August 2007, https://techcrunch.com/2007/08/02/apple-iphone-bluetooth-headset-review
1036	The 7 Best Bluetooth Headsets, Business Insider, Dated November 2010, https://web.archive.org/web/20121001210205/http://www.businessinsider.com/the-7-sexiest-bluetooth-headsets-that-work-great-2010-11?op=1

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1037	Plantronics Savor M1100 Bluetooth Headset Review: Plantronics Savor M1100 Bluetooth Headset, by Nicole Lee, CNET, Dated October 2010, https://www.cnet.com/reviews/plantronics-savor-m1100-bluetooth-headset-review
1038	Plantronics Voyager PRO+ Bluetooth Headset Review: Plantronics Voyager PRO+ Bluetooth Headset, by Nicole Lee, CNET, Dated September 2010, https://www.cnet.com/reviews/plantronics-voyager-pro-plus-bluetooth-headset-review
1039	MotoSpeak 2.0 Announced for Android, by Ken N., Published October 2010, https://www.phonearena.com/news/MotoSpeak-2.0-announced-for-Android_id13782
1040	Motorola CommandOne Bluetooth Headset Review: Motorola CommandOne Bluetooth Headset, by Nicole Lee, CNET, Dated December 2010, https://www.cnet.com/reviews/motorola-commandone-bluetooth-headset-review
1041	Siri, Encyclopaedia Britannica, Published June 2024, https://www.britannica.com/print/article/1908358
1042	First Amended Complaint for Patent Infringement dated March 29, 2024, *e-Vision Optics, LLC et al. v. Luxottica Group, S.p.A. et al.*, No. 8:23-cv-02013 (C.D. Cal.)
1043	First Supplemental Infringement Contentions for U.S. Patent No. 10,598,960 dated July 19, 2024, *e-Vision Optics, LLC et al. v. Luxottica Group, S.p.A. et al.*, No. 8:23-cv-02013 (C.D. Cal.)
1044	U.S. Patent No. 10,598,960
1045	Plaintiffs' Claim Construction Brief dated August 30, 2024, *e-Vision Optics, LLC et al. v. Luxottica Group, S.p.A. et al.*, No. 8:23-cv-02013 (C.D. Cal.)
1046	Plaintiffs' Responsive Claim Construction Brief dated September 27, 2024, *e-Vision Optics, LLC et al. v. Luxottica Group, S.p.A. et al.*, No. 8:23-cv-02013 (C.D. Cal.)
1047	U.S. Patent App. Pub. No. 2011/0252373 to Chaudhri ("Chaudhri")
1048	U.S. Patent App. Pub. No. 2009/0305732 to Marcellino et al. ("Marcellino")

I. INTRODUCTION

All claims of U.S. Patent No. 11,487,138 ("the '138 patent") are unpatentable. Patent Owner ("PO") submitted no arguments challenging Petitioner's unpatentability showings for claims 1-4 and 6-20 under at least Grounds 1 and 7 and has therefore waived any such arguments. Claim 5 is the only claim PO defends with respect to each ground that challenges it, making its unpatentability the principal issue in dispute.

But the Petition establishes that, like the other challenged claims, claim 5 is unpatentable. PO neither deposed Petitioner's expert, Dr. Feland, nor submitted any expert declaration of its own. Instead, PO relies solely on attorney argument and cites no supporting evidence beyond one of the '138 patent's priority applications.

For claim 5, PO argues that the Petition fails to identify a voice recognition chip in the cited prior art. But Grounds 2, 5, and 8 specifically rely on Maddern, which expressly discloses such a chip—an express disclosure PO does not dispute. In Grounds 1, 4, and 7, the Petition identifies voice recognition functionality and cites additional patent references that expressly disclose a voice recognition chip to show the state of the relevant art. PO's arguments asserting any failure of proof regarding a voice recognition chip therefore lack merit.

PO further argues, in all grounds challenging claim 5, that the Petition fails to show a POSITA would have connected a voice recognition chip to a Bluetooth®

chip. But PO again ignores the Petition, cited references, and Dr. Feland, each of which set forth in detail that the voice recognition chip receives voice input through a microphone and relays that input to external devices using Bluetooth. The Petition further establishes that the voice recognition chip is coupled to the Bluetooth chip so that voice input can be used to control other devices.

Accordingly, the Board should find all claims of the ’138 patent unpatentable, including claim 5.

II. CLAIM CONSTRUCTION

The term “voice recognition chip,” recited in claim 5, should be given its plain and ordinary meaning: a chip that recognizes voice input. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (“[T]he words of a claim are generally given their ordinary and customary meaning.”).

PO’s proposed construction improperly imports extraneous limitations by requiring that the chip “allow the wearer to issue oral commands.” Paper 15 (“POR”), 7; *see also id.*, 14 (asserting the chip must also perform “recognition of audio commands”), 17 (same). Yet nothing in the claim, specification, or prosecution history supports this narrowing construction. *See, e.g.*, Ex.1001, 20:2-36; *Cont’l Circuits LLC v. Intel Corp.*, 915 F.3d 788, 798 (Fed. Cir. 2019) (holding claims should not be narrowed absent clear and unmistakable disavowal in the

record).[1] The Board should therefore reject PO's improper attempt to narrow the scope of claim 5.

III. DEPENDENT CLAIM 5 IS UNPATENTABLE

A. Ground 1: Obviousness over Thiel and Gruber

1. The Petition specifies where the "voice recognition chip" is found in the prior art publications

PO argues that "[n]o voice recognition chip is explicitly disclosed in either Thiel or Gruber." POR, 11. But in Ground 1, the Petition identifies Thiel's disclosure of "voice-activated" controls integrated into its device (Pet., 41-42 (citing Ex.1028, [0044])), which, according to Dr. Feland, would have motivated a POSITA "to implement [Thiel's] voice activation functionality by incorporat[ing] a voice recognition chip." Ex.1003, ¶93; *see also Sundance, Inc. v. DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1361 n.3 (Fed. Cir. 2008) ("Whether a patent claim would have

[1] PO's construction is at odds with its prior stance in related litigation, where it proposed no special construction for the term "voice recognition chip." Ex.1042 (asserting the '960 patent); Ex.1043 (asserting infringement of claim 10 of the '960 patent); Ex.1044, claim 10 (reciting "voice recognition chip"); Ex.1045, 2-7 (forgoing construction of "voice recognition chip"); Ex.1046, 1-6; *see also* Ex.1045, 1-2 ("Absent clear evidence of intent by the patentee to disclaim the plain and ordinary meaning of a claim term … the plain and ordinary meaning shall apply.").

been obvious in light of prior art references is determined from the perspective of one of ordinary skill in the art."); *KSR Int'l v. Teleflex Inc.*, 550 U.S. 398, 417 (2007).

Dr. Feland further explains that voice recognition chips were "readily available" at the relevant time, with "off-the-shelf" options "offer[ing] greater efficiency and reduced costs." *Id.* As examples, he identifies prior art patent references Oh (Ex.1012), Calderone (Ex.1019), and Blum (Ex.1020)[2], each of which discloses a voice recognition chip capable of enabling Thiel's voice control functionality. *Id.* This evidence supports that a POSITA, recognizing the desirability of a voice activation as taught by Thiel, would have understood how to implement that functionality using any of these well-known chips. *See In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) ("[A] prior art reference must be considered together with the knowledge of one of ordinary skill in the pertinent art;" "a reference need not, however, explain every detail since [it] is speaking to those skilled in the art." (internal quotation marks and citations omitted)); *In re Preda*, 401 F.2d 825, 826-27 (C.C.P.A. 1968) ("[I]n considering the disclosure of a reference, it is proper to take

[2] PO contends that reliance on Blum's voice recognition chip is misplaced because the chip "does not relate to voice recognition for ***recognition of audio commands***." POR, 14 (emphasis added). But a proper construction of "voice recognition chip" does not require the "recognition of audio commands." *See* Section II.

into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom.").

2. PO cannot show that voice recognition capabilities in Gruber's external device teach away from using a voice recognition chip in Thiel's application module

PO contends that "Petitioner fails to provide an adequate motivation to include a voice recognition chip" because "voice-recognition capabilities are already present in connection with [Gruber's] external device." POR, 11-13. This argument lacks merit for several reasons.

As a threshold matter, PO does not dispute the motivations identified in the Petition for incorporating a voice recognition chip into the application module. For example, the Petition explains that one purpose of Thiel's voice recognition capability is to allow the device "to receive audio signals and control signals from microphones 36 and control panel 38, respectively, and to transmit them to a remote device such as an MP3 player or mobile phone or other device." Pet., 33-34 (quoting Ex.1028, [0049]). PO instead argues that a POSITA would have located the voice recognition functionality solely in Gruber's external device. POR, 11-12. But the Federal Circuit has made clear that the existence of alternatives—even superior ones—does not negate a motivation to combine. *In re Mouttet*, 686 F.3d 1322, 1334 (Fed. Cir. 2012) ("[J]ust because better alternatives exist in the prior art does not

mean that an inferior combination is inapt for obviousness purposes."). PO's argument therefore fails for this reason alone.

PO also overlooks that Gruber's Siri functionality would not necessarily be available to Thiel's application module in all circumstances. As Gruber explains, Siri may be implemented "***in an application*** running on an operating system." Ex.1024, [0073] (emphasis added); *see also* Ex.1003, ¶45 (discussing Siri's implementation as "a third-party app" before being "integrated into the operating system"). When implemented as an application, Siri would be unable to respond to service requests from Thiel's module when the application is not running.[3] Accordingly, a POSITA would have been motivated to include a voice recognition

[3] *See, e.g.*, Ex.1047, [0280] ("[I]f the application is not running when the input is detected, the device must first launch the application."); Ex.1048, [0088]-[0089] ("If the application is not currently running, then flow moves to block 925 where the notification message manager 810 takes alternative action (e.g., the notification message manager 810 causes the application to execute, the notification message manager 810 causes the notification message to be stored in the notification message store 850 of the mobile device 160 without it being processed by its corresponding application until that application is executed, the notification message manager 810 drops the notification message, etc.).").

chip within Thiel's application module to ensure voice recognition capability remained available even when Siri was unavailable. Ex.1003, ¶93; *see, e.g.*, Pet., 33-34 (explaining that the voice control is not limited solely to communication with an external phone, but can include an "MP3 player" or "other device").

Thiel further reinforces this rationale by teaching control of "remote device functions." Ex.1028, [0044]. Incorporating a voice recognition chip would have enabled voice-activated control of both Thiel's application module and remote devices, independent of Siri or any other external system. Thiel also expressly contemplates including voice-activated controls within its application module, stating that "[c]ontrols 38 may be incorporated into [its] audio device 30 [i.e., application module]." *Id*. This configuration aligns with Thiel's disclosure of certain controls—such as "power on/off" and "volume up/down"—that would be executed by the device itself. *Id*.

Finally, Dr. Feland confirms that a POSITA evaluating Thiel "would have been motivated to implement [its] voice activation functionality by incorporation of a voice recognition chip." Ex.1003, ¶93. This analysis of the prior art and the POSITA's motivations remains unrebutted. PO offers only attorney argument and unsupported speculation, which carry little—if any—weight. POR, 41-42. *See Icon Health & Fitness, Inc. v. Strava, Inc.*, 849 F.3d 1034, 1043 (Fed. Cir. 2017) ("Attorney argument is not evidence."); *Hanshow Am. Inc. v. Ses-Imagotag GMbH*,

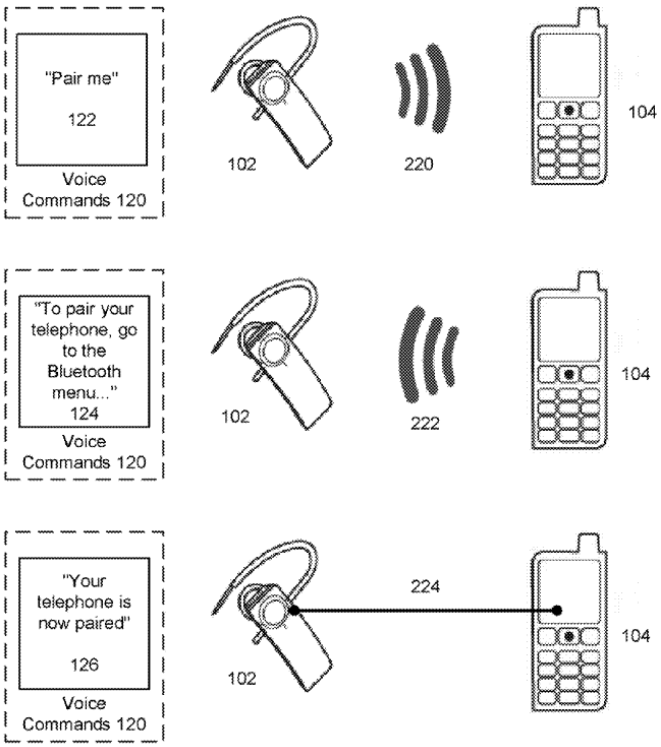
IPR2024-00188, Paper 11 at 60 (P.T.A.B. May 20, 2024) ("We have considered PO's arguments that are unsupported by any expert testimony, but give more weight to the showing in the Petition that is supported by expert declaration testimony.").

3. None of PO's alleged drawbacks teach away from a voice recognition chip

PO argues that "[i]mplementing a voice recognition chip in the eyewear device itself … would result in a larger and more cumbersome frame or associated attachment." POR, 12. This argument fails for multiple reasons.

As an initial matter, PO provides no evidence to support this assertion and thus fails to show that any such considerations would have taught away from incorporating a voice recognition chip. *See Icon Health & Fitness*, 849 F.3d at 1043; *Hanshow Am.*, IPR2024-00188, Paper 11 at 60.

In fact, the record contradicts PO's attorney argument regarding the state of the art. Maddern (Ex.1029), for example, explains that voice recognition "can be provided on one or more integrated circuits or electronic chips in a ***small form factor*** for fitting within a headset." *Id*., [0037] (emphasis added); *see also id*., [0004] (describing a headset "receiv[ing] a voice command directly from [a] user, and recogniz[ing] the command"). Maddern illustrates this in the following figure:



Id., Fig. 5; *see also id.*, Figs. 1-2.

Even if the combination would have entailed size disadvantages—which PO has not shown—the mere presence of disadvantages does not negate a motivation to combine, especially when weighed against other advantages, such as enabling voice-activation functionality within Thiel's application module. *See Allied Erecting & Dismantling Co. v. Genesis Attachments, LLC*, 825 F.3d 1373, 1381 (Fed. Cir. 2016) (noting that, although a modification may impede one benefit, "[a] given course of action often has simultaneous advantages and disadvantages, and this does not necessarily obviate motivation to combine" (citing *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165 (Fed. Cir. 2006) (citation omitted))).

PO next argues that "[i]mplementing a voice recognition chip in the eyewear device itself would increase both cost and complexity" and lead to "increased power needs." POR, 12. These assertions are unsupported and should be rejected. *See Icon Health & Fitness*, 849 F.3d at 1043; *Hanshow Am.*, IPR2024-00188, Paper 11 at 60.

The record demonstrates that implementing a voice recognition chip would be neither complex, costly, nor power-hungry. For example, Oh explains that implementing such a chip need not be complex, stating that its "[s]ystem 50 may be implemented with commercially available components or devices" like Texas Instruments' "TMS320C5X Digital Signal Processor." Ex.1012, 3:41-52; *see also* Ex.1003, ¶93 (indicating voice recognition chips "were readily available" and provided "an 'off the shelf' solution that offered greater efficiency and reduced costs"). Oh also contemplates "[a] single chip implementation" (*id*., 3:53-63), further confirming that the integration would not necessarily require high-complexity components. Moreover, Maddern explains that "the demand on battery power can be reduced by configuring the headset to only listen for a voice command when the headset has been paired, for example … with a proximate mobile phone." Ex.1029, [0016]; *see also id*., claims 6, 9. Thus, power management could be readily achieved without compromising Thiel's voice-activated controls.

Even if incorporating a voice recognition chip would have increased complexity, cost, or power consumption—which PO has not shown—PO's

argument would still fail as a matter of law. *Allied Erecting & Dismantling*, 825 F.3d at 1381. The Federal Circuit has made clear that "case law does not require that a particular combination must be the preferred, or the most desirable, combination described in the prior art in order to provide motivation for the current invention." *Novartis Pharm. Corp. v. West-Ward Pharm. Int'l Ltd.*, 923 F.3d 1051, 1059 (Fed. Cir. 2019) (citing *In re Fulton*, 391 F.3d 1195, 1200 (Fed. Cir. 2004)). Likewise, "the law does not exclude from an obviousness determination solutions which are more complex and/or expensive." *Polaris Wireless, Inc. v. Trueposition, Inc.*, IPR2013-00323, Paper 62 (Final Written Decision) at 36 (P.T.A.B. Nov. 3, 2014), *aff'd*, 622 F. App'x 915 (Fed. Cir. 2015); *see also Orthopedic Equip. Co., Inc. v. United States*, 702 F.2d 1005, 1013 (Fed. Cir. 1983) (holding that whether references would be "combined by businessmen for economic reasons" is irrelevant to obviousness analyses).

PO also contends that Calderone and Oh "undermine[] [Petitioner's] proposal to include a voice recognition chip" because those references' chips "offer only a limited number of commands and the recognition efficiency is only fair." POR, 12. The capabilities described in these references, however, actually support the combination. It would have been expected that Thiel's voice recognition chip might provide fewer functions than Gruber's external device; indeed, that distinction enhances compatibility between the two systems. The chip's limited functionality

would complement—rather than conflict with—the broader capabilities of Gruber's external device. In practice, Thiel's voice recognition chip could handle a subset of functions, while Gruber's external device could perform more advanced operations such as searching the Internet for information.

Regardless, the alleged limitations in the chip's functionality are immaterial to the claim scope. The claim does not require any particular level of recognition efficiency or any minimum number of supported commands, and those factors do not affect the motivation to combine. A POSITA would still have been motivated to include the voice recognition functionality within the application module to achieve the desired integrated control.

4. A POSITA would have been motivated to couple the voice recognition and Bluetooth chips in the Thiel-Gruber combination

PO argues that Petitioner "fails to provide a motivation to couple the voice recognition chip to a Bluetooth chip." POR, 13 (emphasis in original). But relying on Dr. Feland's testimony, the Petition explains that a "POSITA would have been motivated to implement [Thiel's] voice-recognition processing" by "operably coupling [the voice recognition chip] to the microphone and Bluetooth chip." Pet., 42 (citing Ex.1003, ¶93). This configuration would have enabled the voice-activated control of external devices as taught by Thiel, including control over Gruber's external device and similar systems. *See* Ex.1003, ¶¶40 (explaining that the functionality enables "control[ling] a phone or computer by using voice

commands"), 41 (explaining that the Bluetooth chip can transmit "voice commands" to an external device).

The Petition identifies express motivations to couple the voice recognition chip to the Bluetooth chip. It explains that one purpose of coupling these components is to enable Thiel's voice recognition capability to allow the device "to receive audio signals and control signals from microphones 36 and control panel 38, respectively, and to transmit them to a remote device such as an MP3 player or mobile phone or other device." Pet., 33-34 (quoting Ex.1028, [0049]). These motivations mirror those described in the '138 patent itself.[4] PO does not—and cannot—contend that the '138 patent originated this motivation to operatively couple the voice recognition and Bluetooth chips.

[4] Ex.1001, 20:2-13 ('138 patent disclosure: "By way of example only, an application module being that of a wireless enabled personal assistant module docked within the docking station of the inventive eyewear (upon a verbal question raised orally by the wearer of the inventive eyewear about the weather) by way of a miniature microphone, voice recognition chip contained within the personal assistant device module and also a wireless chip or circuit also contained within the personal assistant device module could communicate to the wearer's wireless enabled computer or smart phone to address any number of questions of the wearer.").

B. Ground 2: Obviousness over Thiel, Gruber, and Maddern

For Ground 2, PO does not dispute that Maddern expressly discloses a voice recognition chip. POR, 10-14; *see also* Ex. 1029, [0037] (Maddern disclosing "voice recognition software" provided on "electronic chips").

PO nevertheless contends that "Petitioner's proposed motivation [to combine] fails for the same reasons as set forth under Ground 1." POR, 13. Those arguments fail for the same reasons discussed for Ground 1. *See* Section III.A.2-4. Moreover, the Petition explains that "[i]n view of Maddern, it would have been obvious to incorporate a voice recognition chip in the application module of Thiel" because:

- doing so would "enable the voice functions disclosed in Thiel" (for example, allowing the eyewear to "receive audio signals and control signals from microphones 36 and control panel 38, respectively, and to transmit them to a remote device such as an MP3 player or mobile phone or other device," as disclosed in Thiel);
- "such a chip is useful for implementing voice recognition functionality in a small form factor for fitting within a headset"; and
- "the combination represents the use of a known technique (using voice recognition chip in headset to implement voice recognition functionality) to improve a known device and method (Thiel's application module for eyewear that functions as headset) that is ready for improvement and yields

> predictable results (implementing voice recognition functionality in eyewear application module with voice recognition chip to achieve small form factor)."

Pet., 33-34, 58-59. PO does not address any of these rationales.

C. Ground 4: Obviousness over Jannard-740

1. Jannard-740 renders claim 1 obvious

PO argues that "Petitioner fails to demonstrate that Jannard-740 renders obvious the claimed verbal query and audio response where the query causes the external device to obtain a response by searching the Internet," as required by claim 1 (from which claim 5 depends). POR, 15-16.

As explained in the Petition, Jannard-740 teaches an application module that handles a "multitude of commands" and provides "voice control" functionality for enabling those commands (e.g., verbal queries). Pet., 65-67. It further teaches an application module "configured to communicate" with "a remote source," including for retrieving an email and "read[ing] the email to the user." Pet., 68-69. Given these and other relied-upon teachings, a POSITA would have readily applied Jannard-740's disclosed command-handling and remote-source communication to implement the straightforward step of retrieving Internet-based information in response to a verbal query. *See* Ex.1003, ¶¶159-171.

Dr. Feland's unrebutted testimony confirms this. He explains that a POSITA would have found it obvious to configure Jannard-740's application module "to receive and transmit a verbal query (e.g., request for specific email, audio file, or news) to a Bluetooth-enabled source device." Pet., 67 (citing Ex.1003, ¶¶162-171). A POSITA likewise would have recognized it was obvious "for the verbal query to cause the Bluetooth-enabled source device to obtain a response (e.g., specific email, audio file, or news) to the verbal query via the Internet by searching the Internet for the response." *Id.* The Petition identifies several *KSR*-based rationales supporting this implementation, including that combining these known elements would have yielded predictable results. *Id*., 69-70 (citing Ex.1003, ¶¶165-171).

PO's argument treats the POSITA as a mere automaton incapable of applying Jannard-740's disclosure to the application at hand. *KSR*, 550 U.S. at 421. This approach conflicts with *KSR*, which recognizes that "a person of ordinary skill is also a person of ordinary creativity." *Id.* In view of Jannard-740, the ability of a verbal query to cause the external device to obtain a response by searching the Internet is therefore obvious.

The obviousness of these limitations is further underscored by the '138 patent's lack of disclosure regarding their implementation. The specification merely describes using the application module to "communicate to the wearer's wireless enabled computer or smart phone to address any number of questions of the wearer,"

such as weather-related questions. Ex.1001, 20:2-21. PO cannot demand highly specific disclosures in Jannard-740 to demonstrate the query-related functionality when the ’138 patent itself offers no such detail and relies entirely on the knowledge of a POSITA. *Epstein*, 32 F.3d at 1568 (“[T]he Board’s observation that appellant did not provide the type of detail in his specification that he now argues is necessary in prior art references supports the Board’s finding that one skilled in the art would have known how to implement the features of the references and would have concluded that the reference disclosures would have been enabling.”).

2. The Petition identifies where the “voice recognition chip” is disclosed in the prior art publications

PO argues that “Petitioner identifies no disclosure in Jannard-740 (or Jannard-382) of a voice recognition chip as claimed and does not argue inherency.” POR, 17-18. But the Petition cites Jannard-740, which incorporates Jannard-382’s disclosure (*see* Ex.1005, [0188]) describing electronic eyewear with “[noise-canceling] chips … ***to enable voice recognition*** in ambient noise” (Ex.1017, [0265] (emphasis added)). Pet., 71. This would have motivated a POSITA to “incorporate a voice recognition chip into Jannard-740’s application module” to “enable the voice functions described in Jannard-740.” Ex.1003, ¶174; *see also In re Paulsen*, 30 F.3d at 1480; *In re Preda*, 401 F.2d at 826-27. These functions include: (i) “voice control over system functionality” (Ex.1005, [0161]); (ii) “send[ing] voice signals or commands to [a] cellular phone” (*id.*, [0195]); and (iii) “voice-activated control that

controls selection between primary and secondary [information] sources" (*id.*, [0220]).

As with the Thiel-Gruber combination, Dr. Feland explains that voice recognition chips were "off-the-shelf solution[s] for providing voice recognition." Ex.1003, ¶174. He identifies several prior art patent references—Oh (Ex.1012), Calderone (Ex.1019), and Blum (Ex.1020)—each disclosing a voice recognition chip capable of enabling Thiel's control functionality. *Id.* This evidence confirms that a POSITA, recognizing the desirability of voice recognition as taught by Jannard-740, would have known how to implement that functionality using any of these well-known chips.

3. It would have been obvious to incorporate a voice recognition chip into Jannard-740's application module

PO argues that the Petition "identifies no motivation in Jannard-740 to incorporate a voice recognition chip." POR, 18. This argument fails for multiple reasons.

As an initial matter, PO does not even address the Petition's stated motivations for incorporating a voice recognition chip into Jannard-740's application module. *See* Pet., 71-72. Rather, PO proposes an alternative configuration that fails to refute Petitioner's articulated rationales. *See* Section III.A.2.

PO's position also improperly assumes that Gruber's Siri functionality would always be available and thus overlooks the benefit of an independent, on-device voice recognition capability. *See* Section III.A.2.

The Petition's reasoning aligns with Jannard-740's disclosure of "voice-activated control" of the application module such that "the user need not manipulate mechanical buttons, switches, or controls." Ex.1005, [0161]; *see also id.*, [0220] (disclosing additional "voice-activated control[s]"). Incorporating a voice recognition chip would have enabled integrated voice control functionality within Jannard-740's application module.

Dr. Feland's testimony confirms that a POSITA evaluating Jannard-740 "would have been motivated to incorporate a voice recognition chip into Jannard-740's application module" to "enable the voice functions described in Jannard-740." Ex.1003, ¶174. This analysis stands unrebutted, and PO's argument should therefore be given little weight. *See Icon Health & Fitness*, 849 F.3d at 1043 (Fed. Cir. 2017); *Hanshow Am.*, IPR2024-00188, Paper 11 at 60.

4. PO overlooks the Petition's explicit rationales for the implementation

PO argues that Petitioner "fails to identify any motivation to couple a voice recognition chip to a Bluetooth chip." POR, 18. But, relying on Dr. Feland's testimony, the Petition explains that "[a] POSITA would have been motivated to incorporate a voice recognition chip into Jannard-740's application module,

operably coupled to Jannard-740's microphone and Bluetooth chip, in view of the disclosures incorporated from Jannard-382." Pet., 71-72 (citing Ex.1003, ¶174). Dr. Feland explains that such a chip "would enable the voice functions described in Jannard-740." Ex.1003, ¶174.

In discussing the implementation, Dr. Feland references Jannard-740's disclosure of a user "send[ing] voice signals or commands to the cellular phone by speaking into a microphone on the audio device 510C." *Id*., ¶160 (citing Ex.1005, [0195]). Coupling the voice recognition and Bluetooth chips in Jannard-740's application module enables the voice-based, wireless control of external devices, including of Gruber's and others, by using Bluetooth to transmit recognized voice commands. *See* Ex.1003, ¶¶42 (explaining Jannard-740 discloses its "module may include 'a speaker, a microphone, a power supply and a Bluetooth or other radio frequency transceiver for wirelessly communicating with a remote device such as a cellular telephone'" (citing Ex.1005, [0086])), 44 (explaining Jannard-740 describes "a user can issue voice commands to offboard electronics, such as a cellular phone, that can communicate with a remote source, such as the Internet").

Similarly, Jannard-382, which Jannard-740 incorporates by reference and is discussed by Dr. Feland, provides its "interface 116 can be configured to allow a user to control the cooperating wireless device, such as a cell phone." Ex.1017, [0289]. This voice-based control of cooperating devices would be facilitated by

coupling the voice recognition and Bluetooth chips, where the voice recognition chip supports processing of voice input and the Bluetooth chip transmits user commands based on that input to the cooperating device.

Moreover, as previously explained, the motivations identified in the Petition for operatively coupling the voice recognition chip with the Bluetooth chip are consistent with those described in the ’138 patent itself. *See* Section III.A.4. PO does not—and cannot—assert that the ’138 patent originated this motivation to operatively couple the voice recognition and Bluetooth chips.

5. PO’s reliance on its Grounds 1-2 arguments fails

PO argues that “Petitioner’s contentions additionally fail for similar reasons as set forth under PO’s arguments regarding Grounds 1 and 2.” POR, 18. The Board should reject this argument for the same reasons discussed. *See* Sections III.A-B.

D. Ground 5: Obviousness over Jannard-740 and Maddern

PO simply references its arguments from Grounds 1-2 and 4 concerning claim 5 in Ground 5. POR, 18-19. These arguments fail for the same reasons discussed. *See* Sections III.A-C.

E. Grounds 7-8: Obviousness over Jannard-740 and Gruber, alone or in combination with Maddern

1. The Petition identifies where the “voice recognition chip” is found in the prior art publications and explains that it would have been

obvious to incorporate a voice recognition chip into the application module in the combinations

For Ground 7, PO repeats its Grounds 1 and 4 arguments that the references forming the ground (i.e., Jannard-740 and Gruber) do not disclose a voice recognition chip. POR, 17-18. These arguments fail for the reasons already discussed. *See* Sections III.A.1, III.C.2. In any event, Ground 8 further adds Maddern to the combination of Jannard-740 and Gruber (*see* Pet., 87), and PO does not dispute that Maddern discloses the claimed voice recognition chip (POR, 20-21).

PO's additional argument that Grounds 7-8 should be rejected for the reasons set forth for claim 5 under Grounds 1-2 and 4-5 likewise fails for the reasons discussed. *See* Sections III.A-D.

Lastly, PO contends that the Petition's assertion that "Jannard-740 would have motivated a PHOSITA to 'offload electronics'" is inconsistent with the Petition's statement that "a PHOSITA would not have been motivated to *add additional electronics* (i.e., a voice recognition chip) into Jannard's eyewear device in the proposed combination with Gruber." POR, 21. This argument fails for the reasons already discussed; including, because it assumes the Siri functionality would always be available and overlooks the benefit of an independent, on-device voice recognition capability. *See* Section III.C.3.

2. The Board should reject PO's reading of the Petition's claim 5 analysis

PO asserts that "Petitioner simply argues that 'Jannard-740 ***discloses*** this dependent claim limitation for the reasons discussed for claim 5 in Ground 4,'" but "identifies no portion of Jannard-740 … where it ***discloses*** a voice recognition chip." POR, 20 (emphasis added). This reading of the Petition's analysis elevates the single word "discloses" over the substance and ignores that Ground 7 expressly incorporates the obviousness analysis of Ground 4.

Petitioner did not waive its obviousness argument for this dependent claim. Ground 7 explicitly incorporates the analysis, referring to "the reasons discussed for claim 5 in Ground 4. *Supra* §X.B." The incorporated discussion from Ground 4 explains that Jannard-740 would have rendered the limitation obvious. By expressly incorporating that discussion, Ground 7 necessarily adopts the same obviousness rationale. PTAB precedent recognizes that internal cross-references within a petition are permissible where, as here, they do not impede understanding or obscure the theory presented. *See, e.g.*, *Deere & Co. v. Gramm*, IPR2015-00898, Paper 7 at 19-20 (P.T.A.B. Sept. 23, 2015); *Apple Inc. et al. v. e-WATCH, INC.*, IPR2015-00412, Paper 50 at 54 (P.T.A.B. May 6, 2016) ("Rule 42.104 should not be read so stringently that a petition is doomed … The rule should not require a catastrophic result simply for the less than perfect case.").

The Petition easily satisfies § 312(a)(3) because it identified, with particularity, the evidence and reasoning addressing this limitation. As in *e-WATCH*, any minor imprecision did not render the Petition confusing or deprive the PO of notice. *Id*. at 54-55 ("But, at least in this case, Petitioners' failure to do that does not make the Petition so confusing that Rule 42.104 requires its rejection or dismissal. Within the obviousness ground explained by Petitioners, it is readily discernable which element of which claim Petitioners believe is met by McNelley and why that is so."). The obviousness ground, as articulated and cross-referenced, identifies the specific claim element addressed in Ground 4 and, with citations to Jannard-740, explains how that reference renders the limitation obvious.

3. PO's reliance on its Grounds 1-2 and 4-5 arguments fails

PO argues "Petitioner's arguments under both Grounds 7 and 8 should be rejected for the reasons as set forth above for Grounds 1 and 2 … and Grounds 4 and 5." *Id.* at 20-21. The Board should reject each of these arguments for the reasons discussed. *See* Sections III.A-D.

IV. THE REMAINING CLAIMS ARE UNPATENTABLE

A. Grounds 1 and 7: PO does not dispute the unpatentability of claims 1-4 and 6-20

PO does not defend the patentability of claims 1-4 and 6-20 under at least Grounds 1 and 7. POR, 10-14, 20-21. PO has thus waived any argument in opposition to these grounds for these claims. *In re NuVasive, Inc.*, 842 F.3d 1376,

1380-1381 (Fed. Cir. 2016) (holding PO waived arguments on issues not raised in its response after institution).

B. Ground 4: Claims 1, 6, and 12 are obvious over Jannard-740

This ground renders claims 1, 6, and 12 unpatentable for the reasons discussed under Section III.C.1.

C. Ground 6: Claims 7 and 17-18 are obvious over Jannard-740 and Osterhout

The Petition shows that Jannard-740 renders obvious transmitting a verbal query, receiving a response, and providing that response via a speaker. Pet., 65-67, 77. The Petition further demonstrates that a POSITA would have found it obvious for the verbal query to request news and for the response to provide the requested news. *Id*., 67 (citing Ex.1003, ¶¶162-171), 77. The Petition then cites Osterhout to illustrate that the type of news that may be requested and received includes weather information. *Id*., 77-79.

In its Response, PO contends that Jannard-740 does not disclose requesting or receiving news information, "as set forth under PO's discussion of Jannard-740 under Ground 4." POR, 19. However, as explained above, Jannard-740 renders obvious both requesting and receiving news information. *See* Section III.C.

PO further argues that Osterhout "does not provide a way for weather information to be requested and provided verbally." POR, 20. This argument, however, overlooks that the Petition relies on Jannard-740's components for

transmitting the verbal query, receiving the response, and providing that response via the speaker. The Petition relies on Osterhout to show the type of news information that a wearer can request.

V. PETITIONER'S RESPONSE REGARDING GROUND 3

Because PO waived any arguments regarding the patentability of claim 8 under at least Grounds 1, 4, and 7, Petitioner does not further address PO's arguments concerning Ground 3, as those unrebutted grounds are sufficient to establish the unpatentability of claim 8.

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. §42.24(d), the undersigned certifies that this **PETITIONER'S REPLY IN SUPPORT OF PETITION FOR INTER PARTES REVIEW** contains 5,447 words according to the word-processing program used to prepare this paper. The foregoing word count complies with the 5,600-word type-volume limit specified by 37 C.F.R. §42.24(c)(1).

Dated: November 18, 2025 By: /Jacob L. Peterson/
Jacob L. Peterson (Reg. No. 65,096)
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CERTIFICATE OF SERVICE

I hereby certify that on the date below, a true and correct copy of **PETITIONER'S REPLY IN SUPPORT OF PETITION FOR INTER PARTES REVIEW and EXHIBITS 1042-1048** are being served via email pursuant to 37 C.F.R. §42.6(e), to counsel for Patent Owner as addressed below:

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