

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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MED-EL ELEKTROMEDIZINISCHE GERÄTE GES.M.B.H.,  
Petitioner,

v.

ADVANCED BIONICS AG,  
Patent Owner.

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IPR2020-01016  
Patent 8,155,746 B2

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Before SCOTT A. DANIELS, ERIC C. JESCHKE, and  
RICHARD H. MARSCHALL, *Administrative Patent Judges*.

JESCHKE, *Administrative Patent Judge*.

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

## I. BACKGROUND

Petitioner, MED-EL Elektromedizinische Geräte Ges.m.b.H., filed a Petition to institute an *inter partes* review of claims 1–24 (the “challenged claims”) of U.S. Patent No. 8,155,746 B2 (Ex. 1001, “the ’746 patent”). Paper 1 (“Pet.”). Patent Owner, Advanced Bionics AG, filed a Patent Owner’s Preliminary Response. Paper 6 (“Prelim. Resp.”). With our authorization (Paper 8), Petitioner filed a Reply to Patent Owner’s Preliminary Response (Paper 9, “Prelim. Reply”) and Patent Owner filed a Sur-reply to Petitioner’s Reply (Paper 10, “Prelim. Sur-reply”).

We have authority to determine whether to institute an *inter partes* review. *See* 35 U.S.C. § 314 (2018); 37 C.F.R. § 42.4(a) (2019) (“The Board institutes the trial on behalf of the Director.”). Section 314(a) of Title 35 of the United States Code provides that an *inter partes* review may not be instituted “unless . . . the information presented in the petition . . . 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.” Upon consideration of the evidence and arguments in the Petition (including its supporting testimonial evidence) as well as the evidence and arguments in the other briefing, for the reasons below, we determine that the Petition shows a reasonable likelihood that Petitioner would prevail with respect to at least one of the challenged claims. We thus institute *inter partes* review on all challenged claims on all asserted grounds. *See SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1354, 1359–60 (2018); *see also PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018) (interpreting the statute to require “a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition”); Consolidated Trial

Practice Guide 64 (Nov. 2019), <https://www.uspto.gov/TrialPracticeGuide> Consolidated (“Consolidated TPG”) (“The Board will not institute on fewer than all claims or all challenges in a petition.”).

*A. Real Parties in Interest*

Petitioner identifies itself and MEL-EL Corporation, USA as real parties in interest. Pet. 2. Patent Owner identifies itself as well as Advanced Bionics, LLC and Sonova AG as real parties in interest. Paper 5 (Patent Owner’s Mandatory Notices) § I.A.

*B. Related Proceedings*

The parties both identify an active proceeding in the U.S. District Court for the District of Delaware (“the Delaware District Court”) involving the ’746 patent: *MED-EL Elektromedizinische Geräte Ges.m.b.H. v. Advanced Bionics, LLC*, No. 1:18-cv-01530 (D. Del.), filed October 3, 2018 (the “Delaware Litigation”). Pet. 3; Paper 5, at 2. The Delaware Litigation also involves U.S. Patent No. 8,634,909 B2 (“the ’909 patent”), U.S. Patent No. RE46,057 E (“the ’057 patent”), U.S. Patent No. 6,761,681 B2 (“the ’681 patent”), and U.S. Patent No. 8,155,747 B2 (“the ’747 patent”). Paper 5, at 2–3.

Patent Owner identifies other proceedings involving patents in the Delaware Litigation. Paper 5, at 2–3. Real party in interest Advanced Bionics, LLC filed petitions for *inter partes* review of (1) claims 1, 3, 5, 6, 10, 11, 14, 16, and 20 of the ’909 patent, in IPR2019-01469, and (2) claim 19 of the ’057 patent, in IPR2019-01572. *See Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte Ges.m.b.H.*, IPR2019-01469, Paper 1 (PTAB Aug. 5, 2019); *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte Ges.m.b.H.*, IPR2019-01572, Paper 1 (PTAB

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Sept. 4, 2019). The Board denied institution in both of those proceedings. *See* IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020); IPR2019-01572, Paper 11 (PTAB Mar. 19, 2020).

Petitioner also filed petitions for *inter partes* review of (1) claims 6–9, 11, and 12 of the ’681 patent, in IPR2020-00176, and (2) claims 1–8 of the ’747 patent, in IPR2020-00190. *See MED-EL Elektromedizinische Geräte Ges.m.b.H. v. Sonova AG*, IPR2020-00176, Paper 1 (PTAB Nov. 26, 2019); *MED-EL Elektromedizinische Geräte Ges.m.b.H. v. Advanced Bionics AG*, IPR2020-00190, Paper 1 (PTAB Nov. 27, 2019). The Board instituted *inter partes* review in both of those proceedings. *See* IPR2020-00176, Paper 13 (PTAB June 3, 2020); IPR2020-00190, Paper 15 (PTAB June 3, 2020).

On October 7, 2020, Petitioner filed another petition for *inter partes* review of claims 1–24 of the ’746 patent in IPR2021-00044. *See MED-EL Elektromedizinische Geräte Ges.m.b.H. v. Advanced Bionics, AG*, IPR2021-00044, Paper 1 (PTAB Oct. 7, 2020).

### *C. The ’746 Patent*

The ’746 patent “relates to hearing aid prosthesis devices, and, in a preferred embodiment, to a cochlear implant system having an external sound processor with a permanently integrated replenishable power source, e.g., a rechargeable battery.” Ex. 1001, 1:14–18. According to the ’746 patent, prior cochlear implant systems used batteries that needed to be regularly removed from the sound processor for charging or replacement, leading to various problems. *Id.* at 1:22–48.

Figure 3 is reproduced below:

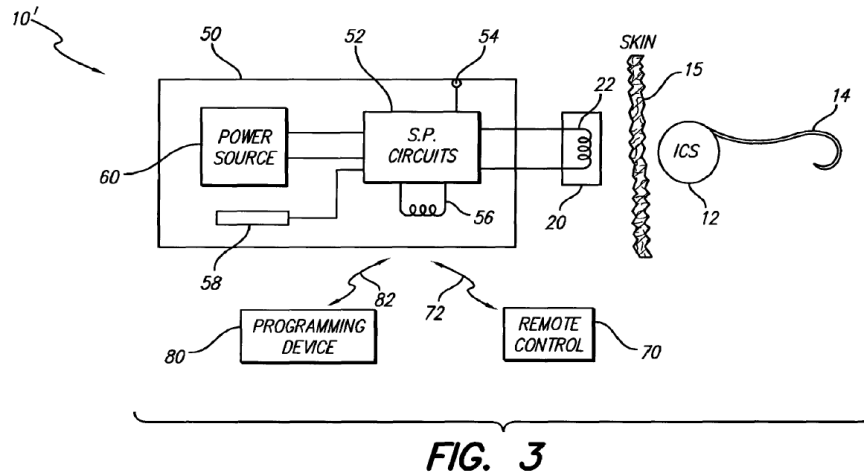
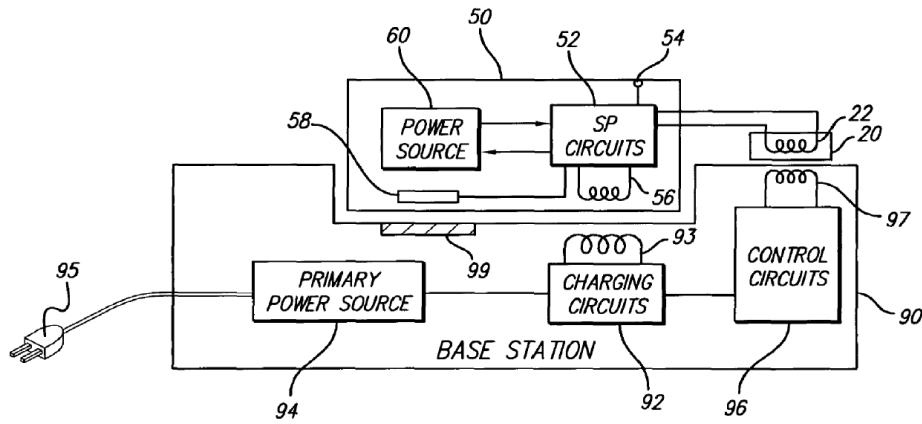


Figure 3 is “a block diagram of an externally-worn sound processor with [an] integral replenishable power source.” Ex. 1001, 3:25–26. Figure 3 shows sound processor 50, which includes “sound processing circuits 52 coupled to a suitable microphone 54, or other sound source, and a headpiece 20” as well as “replenishable power source 60 that is integral with, i.e., included within, the sound processor 50.” *Id.* at 4:58–62.<sup>1</sup>

Charging/communication coil 56 is “included as an integral part of the sound processor 50” and provides a means to receive a charging signals to charge power source 60 via an external source. *Id.* at 4:62–65, 5:7–10. In a preferred embodiment, replenishable power source 60 is a rechargeable lithium-ion battery. *Id.* at 4:66–67. The depicted system also includes “headpiece 20 connected to the sound processing circuit 52 through which the stimulation signal and the power signal are transferred by a coil 22 to an implantable cochlear stimulator 12.” *Id.* at 6:2–5.

<sup>1</sup> Throughout this Decision, we omit any bold emphasis of reference numerals in quotations from the ’746 patent and from prior art references.

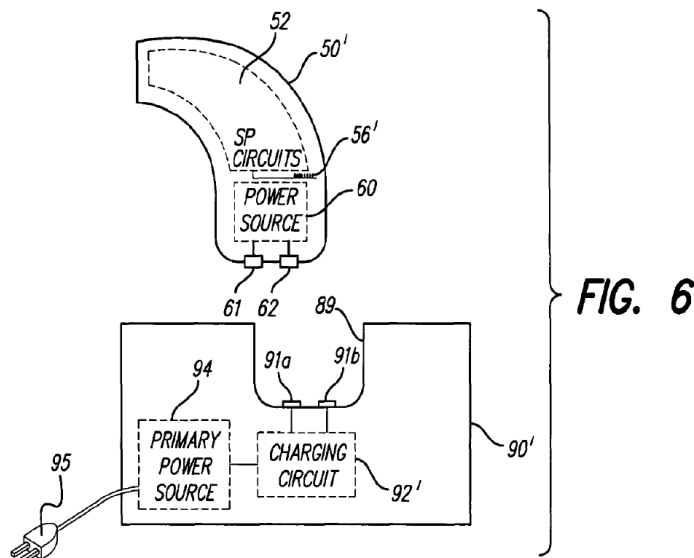
Figure 5 is reproduced below:



**FIG. 5**

Figure 5 “depicts the manner in which the integral power source of the sound processor may be recharged using a base station.” Ex. 1001, 3:31–33. Figure 5 shows charging circuit 92, which receives power from primary power source 94 and inductively transfers power through coil 93 in the base station to coil 56 in sound processor 50. *Id.* at 6:62–65.

Figure 6 is reproduced below:



**FIG. 6**

Figure 6 depicts “an alternative type of base station that may be used to recharge the power source within the sound processor.” Ex. 1001, 3:34–

35. In this embodiment, base station 90' includes an opening 89 to receive sound processor 50'. *Id.* at 7:33–36. Once contacts 61/62 make adequate contact with terminals 91a/91b, charging circuit 92' controls the charging of power source 60. *Id.* at 7:41–49.

*D. Challenged Claims*

Petitioner challenges claims 1–24, of which claims 1, 10, 18, and 24 are independent. Claims 2–9 depend from claim 1, claims 11–17 depend from claim 10, and claims 19–23 depend from claim 18. Independent claim 1 is reproduced below, with bracketed numbers added:

1. [1.1] A cochlear implant system, comprising:  
an implantable cochlear stimulator;

[1.2] an external sound processor including [1.3] a closed case, [1.4] a sound processor circuit, [1.5] a rechargeable power source permanently and integrally housed within the closed case, [1.6] and at least one electrical contact electrically connected to the rechargeable power source and embedded within or carried on an exterior surface of the closed case such that the at least one electrical contact is exposed outside the closed case; and

[1.7] a coil operably connected to the sound processor circuit.

Ex. 1001, 8:21–31.<sup>2</sup>

*E. Asserted Grounds of Unpatentability*

Petitioner challenges claims 1–24 of the '746 patent on the following grounds:

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<sup>2</sup> We adopt Petitioner's designations for the elements of the challenged claims. *See* Pet. 76–84 (showing numerical designations for the language in the challenged claims). We apply these designations below.

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–24	103(a)	AAPA <sup>3</sup> , Petersen <sup>4</sup>
10–17, 24	103(a)	Zilberman <sup>5</sup> , Saaski <sup>6</sup>
10–17, 24	103(a)	AAPA, Zilberman, Saaski

Petitioner supports its challenges with a declaration from Dr. Khalil Najafi (Ex. 1002, “the Najafi Declaration” or “Najafi Decl.”), who Petitioner has retained as an independent expert (*id.* ¶¶ 1, 15).

## II. DISCUSSION

### A. *The Level of Ordinary Skill in the Art*

The level of ordinary skill in the art is “a prism or lens” through which we view the prior art and the claimed invention. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). The person of ordinary skill in the art is a hypothetical person 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). In determining the level of ordinary skill in the art, we may consider certain factors, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made;

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<sup>3</sup> Statements in the ’746 patent at column 1, lines 22–28; column 3, lines 21–24; and column 3, line 47 through column 4, line 55 (Ex. 1001, “Applicant Admitted Prior Art” or “AAPA”).

<sup>4</sup> International Publication No. WO 97/04619, published February 6, 1997 (Ex. 1017, “Petersen”).

<sup>5</sup> US 2001/0056291 A1, published December 27, 2001 (Ex. 1018, “Zilberman”).

<sup>6</sup> US 6,310,960 B1, issued October 30, 2001 (Ex. 1021, “Saaski”).



sophistication of the technology; and educational level of active workers in the field.” *Id.* (internal quotation marks and citation omitted).

Petitioner contends that one of ordinary skill in the art at the time of the invention would have had

(a) at least a bachelor’s degree in electrical engineering, biomedical engineering, physics, or a related field, and (b) at least three years of experience in developing biomedical devices, with a working knowledge of (i) typical cochlear implant systems and (ii) power management of biomedical devices, including rechargeable batteries, charging through direct electrical contacts, and inductive charging.

Pet. 23. According to Petitioner, “[a] higher level of education would substitute for less work experience, and vice versa.” *Id.*

Patent Owner “does not dispute clauses (a), (b), and (i) of Petitioner’s definition or that a higher level of education may substitute for less work experience, or vice versa.” Prelim. Resp. 4. Patent Owner disagrees, however, with clause (ii) of Petitioner’s proposed definition, arguing that it “essentially presumes at the outset that [one of ordinary skill in the art] would have both recognized problems in the power management of cochlear implant systems and attempted to solve them using the [’746 patent] invention by incorporating ‘charging through direct electrical contacts, and inductive charging.’” *Id.* at 4–5.

We agree with Patent Owner that the specific identity of the subtopics listed by Petitioner as allegedly included in “power management of biomedical devices”—i.e., “rechargeable batteries, charging through direct electrical contacts, and inductive charging”—is an issue more appropriately addressed in the context of the scope and content of the prior art, rather than the definition of one of ordinary skill in the art. *See* Pet. 22–23 (citing

various references as teaching “power management strategies such as rechargeable batteries, charging through direct electrical contacts, and inductive charging”); Najafi Decl. ¶ 82 (same); *see also Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966) (discussing the different factual inquiries in an obviousness determination).

As to whether one of ordinary skill in the art would have had a “working knowledge” of “power management of biomedical devices” *more generally*, Dr. Najafi testifies that:

the types of problems encountered with cochlear implant system’s power management, and the various solutions in the prior art . . . , are, in their nature, not specific to the field of cochlear implant systems, but generally relate to common issues of the electrical engineering and biomedical engineering fields.

Najafi Decl. ¶ 81, *cited at* Pet. 22–23; *see also* Pet. 22 (“The problems encountered with that power management relate to common issues of the electrical and biomedical engineering, such as types of power sources, charging mechanisms, and related design options.”). At this stage of the proceeding, we find this aspect of clause (ii) of Petitioner’s definition of one of ordinary skill in the art supported by the record.

For these reasons, and for purposes of this Decision only, one of ordinary skill in the art at the time of the invention in the ’746 patent would have had: (a) at least a bachelor’s degree in electrical engineering, biomedical engineering, physics, or a related field, and (b) at least three years of experience in developing biomedical devices, with a working knowledge of (i) typical cochlear implant systems and (ii) power management of biomedical devices.

The level of skill in the art remains an open issue in this proceeding. Future submissions by the parties may include argument and evidence that

would assist in the resolution of this issue. We note that the level of ordinary skill in the art is only useful if tied to an obviousness analysis. *See generally Graham*, 383 U.S. at 17–18; *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718 (Fed. Cir. 1991) (“The importance of resolving the level of ordinary skill in the art lies in the necessity of maintaining objectivity in the obviousness inquiry.”). In light of this, any additional argument and evidence related to the level of skill in the art should explicitly address how that level impacts the obviousness analysis, if at all.

*B. Claim Construction*

In *inter partes* reviews, the Board interprets claim language using the standard described in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See* 37 C.F.R. § 42.100(b). Under that standard, we generally give claim terms their ordinary and customary meaning, as would be understood by a person of ordinary skill in the art at the time of the invention, in light of the language of the claims, the specification, and the prosecution history. *See Phillips*, 415 F.3d at 1313–14. Although extrinsic evidence, when available, may also be useful when construing claim terms under this standard, extrinsic evidence should be considered in the context of the intrinsic evidence. *See id.* at 1317–19.

Petitioner does not propose constructions for any claim terms, and states that “all claim terms recited in [the ’746 patent] should be given their plain and ordinary meaning.” Pet. 23. Patent Owner discusses the preambles of the challenged claims and proposes a construction for the phrase “closed case.” Prelim. Resp. 5–6.

1. *Preambles*

Each of the independent claims recites “[a] cochlear implant system.” Ex. 1001, 8:21 (claim 1), 9:3 (claim 10), 10:1 (claim 18), 10:38 (claim 24). Patent Owner contends that these preambles are limiting, but does not propose a particular construction. *See* Prelim. Resp. 5. We do not discern a need to determine whether the preambles are limiting because, at least for purposes of the Petition, Petitioner addressed the preambles as if they *were* limiting. *See, e.g.*, Pet. 24, 30–32, 48, 67, 71; *see also Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (stating that “we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

2. *“closed case”*

Each of the independent claims recites “an external sound processor including *a closed case*” and recites a rechargeable power source or battery “permanently and integrally housed within the *closed case*.” Ex. 1001, 8:23–26 (claim 1) (emphasis added as to all claims), 9:5–8 (claim 10), 10:3–6 (claim 18), 10:40–43 (claim 24).

Patent Owner contends that “closed case” should be construed as “a case that does not permit passage or entry.” Prelim. Resp. 6. As to the claim language itself, Patent Owner argues that each claim “specifies not simply a ‘case’ but a ‘closed case,’ which indicates the case is closed from access by the user.” *Id.* Patent Owner argues that the Specification “supports this understanding by describing that the battery of the external sound processor need not be removed and that the case of the sound processor does not include ‘mechanical latches or doors.’” *Id.* (citing

Ex. 1001, 2:42–57). In addition, Patent Owner argues that, during prosecution, the applicants submitted a dictionary entry defining “closed” as “blocked or barred to passage or entry” and the applicants then argued that “closed case” in the context of the claims means “a case that ‘does not permit passage or entry.’” *Id.* (citing Ex. 1006, at 298–99).

We determine that the record at this stage of the proceeding supports Patent Owner’s proposed construction, but with certain clarification. We view the claim language itself, in combination with the dictionary definition of “closed” discussed in the prosecution history, as requiring that the “case” does not *currently* permit passage or entry. *See* Ex. 1006, at 298 (providing a definition of “closed” from the American Heritage Dictionary of the English Language, Fourth Edition (2009)); *see also* Ex. 3001 (*The American Heritage Dictionary of the English Language* (2016) (via Credo Reference), <https://search.credoreference.com/content/entry/hmdictenglang/closed> (last visited October 14, 2020) (Definition 2 – “Blocked or barred to passage or entry: a closed port.”)).

To the extent Patent Owner takes the position that a user is *permanently* unable to enter the “case” based merely on the term “closed,” we disagree. *Cf.* Prelim. Resp. 6 (Patent Owner arguing that “closed case” “indicates the case is closed from access by the user”). Although that temporal limitation *may* be present in the recitation that the “power source” or “battery” is “permanently and integrally housed within [a] closed case,” we do not view the term “closed” *alone* as including that temporal limitation. Supporting this understanding—and in line with the dictionary definition highlighted by Patent Owner—a door (or a “port” as in the

dictionary's example) may be "closed" at the time, but that does necessarily mean that the door (or port) will never again be opened.

Although the portion of the prosecution history cited by Patent Owner provides a dictionary definition of the term "closed" for the phrase "closed case," looking at the discussion overall, the applicants were addressing the meaning of the entire phrase "a rechargeable power source permanently and integrally housed within the closed case." *See* Ex. 1006, at 298–99. Thus, it is unclear whether any potential temporal limitation can be attributed to the phrase "closed case" alone.

In addition, although the portion of the Specification identified by Patent Owner discusses the possibility of, for example, eliminating "mechanical latches or doors," to the extent the claims include such a negative limitation, for the reasons stated above, we are not persuaded that the phrase "closed case" *alone* is the source of that requirement. Supporting this understanding, dependent claims 6 and 14 (depending from claims 1 and 10, respectively), as well as independent claim 24 each *expressly* recites that the "closed case" "does not include a battery removal door." Ex. 1001, 8:60 (claim 6), 9:38 (claim 14), 10:40–41 (claim 24); *see Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004) ("[T]he presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim."); *Caterpillar Tractor Co. v. Berco, S.p.A.* 714 F.2d 1110, 1115–16 (Fed. Cir. 1983) (rejecting an argument that a structural relationship recited in two independent claims should limit another independent claim that did not recite the same relationship, stating: "Courts may not introduce into a claim limitations which are explicitly contained in other claims."). For these

reasons, we construe “closed case” as *a case that does not currently permit passage or entry*.

Claim construction, in general, is an issue to be addressed at trial and claim constructions expressly or implicitly addressed in this Decision are *preliminary* in nature. Claim construction will be determined at the close of all the evidence and after any hearing. The parties are expected to assert all of their claim construction arguments and evidence in the Petition, Patent Owner’s Response, Petitioner’s Reply, Patent Owner’s Sur-reply, or otherwise during trial, as permitted by our rules.

*C. Discretion Under 35 U.S.C. § 314(a)*

Patent Owner argues that we should exercise our discretion to deny institution under 35 U.S.C. § 314(a) because a trial is scheduled in the Delaware Litigation approximately two months prior to our likely deadline to issue a final decision in this proceeding. Prelim. Resp. 7–14. With our authorization (Paper 8), Petitioner and Patent Owner filed additional briefing on this issue. *See* Prelim. Reply 4–8; Prelim. Sur-reply 4–8. And, based on the filing of the petition in IPR2021-00044, also challenging claims 1–24 of the ’746 patent, Petitioner filed a “Ranking and Explanation for Second Petition.” *See* Paper 11.

*1. Legal Framework*

In deciding whether to exercise discretion under 35 U.S.C. § 314(a), the Board may consider “events in other proceedings related to the same patent, either at the Office, in district courts, or the ITC.” Consolidated TPG 58. The precedential order in *Apple Inc., v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (“*Fintiv*, Paper 11”), sets forth

factors to consider when a patent owner raises an argument for discretionary denial due to the advanced state of a parallel proceeding:

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board's exercise of discretion, including the merits.

*Fintiv*, Paper 11, at 5–6. “These factors relate to whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding.” *Id.* at 6. There is some overlap among these factors and some facts may be relevant to more than one factor. *Id.* In evaluating the factors, the Board takes a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review. *Id.*

## 2. *Analysis*

### a. *Factor 1: whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted*

The Delaware District Court has not granted a stay in the Delaware Litigation and no party has requested a stay. *See* Prelim. Resp. 8. The parties agree that no evidence exists that a stay would be granted even if this *inter partes* review were instituted. *Id.* (stating that “no evidence exists that



a stay would be requested or granted in Delaware Case, even if IPR were instituted here”); Prelim. Reply 4 (quoting and agreeing with Patent Owner’s statement); Prelim. Sur-reply 4.

In the Preliminary Response, Patent Owner takes the position that “this factor strongly favors discretionary denial of institution.” Prelim. Resp. 8. Petitioner argues that this factor is neutral. *See* Prelim. Reply 4–5 (citing *Church & Dwight Co., Inc. v. Batinkoff*, IPR2020-00168, Paper 11 at 15 (PTAB May 15, 2020)); *see also* Prelim. Sur-reply 4 (Patent Owner not contesting Petitioner’s position as to this factor). We agree with Petitioner that this factor is neutral. *See Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 12 (PTAB May 13, 2020) (informative) (“*Fintiv*, Paper 15”) (determining that factor 1 is neutral when neither party has requested a stay and the issue has not been ruled on by the district court); *MED-EL Elektromedizinische Geräte Ges.m.b.H. v. Sonova AG*, IPR2020-00176, Paper 13 at 15 (PTAB June 3, 2020) (determining this factor to be neutral based on similar facts as to the Delaware Litigation). Patent Owner does not identify case law for the position that this factor strongly favors denial.

*b. Factor 2: proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision*

In the current scheduling order in the Delaware Litigation, the date provided for the ten-day trial is “October 12–22, 2021 or at the Court’s convenience.” Ex. 2002, at 3. Patent Owner highlights that, below the date for the trial, the Delaware District Court added, “No further extensions of these deadlines will be granted.” *Id.*, *discussed at* Prelim. Resp. 9.

According to Patent Owner, “the District Court will have resolved substantially the same issues between the same parties before the Board

would be due to issue its final written decision in this IPR.” Prelim. Resp. 9. Patent Owner also argues that “Petitioner is responsible for creating this timing problem” because Petitioner “waited almost a year after being informed of its infringement of the [’746] patent, and waited more than six months after the [’746] patent was formally added to the Delaware [Litigation] before filing the Petition.” *Id.* at 10 (discussing Ex. 2004 (May 2019 letter to Petitioner discussing infringement of the ’746 patent)); *see also id.* at 14 (arguing that “Petitioner was aware of all of this art, or substantially cumulative prior art, but delayed filing the Petition”). According to Patent Owner, “this factor strongly favors discretionary denial of institution.” *Id.*

Petitioner responds by highlighting the “at the Court’s convenience” language following the date in the current scheduling order in the Delaware Litigation. Prelim. Reply 5 (quoting, with emphasis added Ex. 2002, at 3). Petitioner adds that “even if the court concludes the trial on October 22, [2021,] the overlap between that date and the deadline for decision here (December 9, 2021) is small.” *Id.*

As an initial matter, and in line with Patent Owner’s argument as to the alleged “same issues” before the Delaware District Court (Prelim. Resp. 9), we view this factor as interrelated with factor 4, relating to the overlap of issues between the two proceedings. *See Fintiv*, Paper 11, at 6 (discussing how “there is some overlap among these factors” and “[s]ome facts may be relevant to more than one factor”). Specifically, we view the relevance of this factor as diminished somewhat when, as discussed below (as to factor 4), here, there is not a significant amount of overlap in the specific issues in the Board proceeding and in the parallel litigation. Put simply, if a

parallel litigation is scheduled to conclude earlier than a Board proceeding, but addresses largely *different* validity issues, the specific amount of time the conclusion of the parallel litigation precedes the Board proceeding may be less relevant to the efficiency and integrity of the system. *See id.*

Although Patent Owner is correct that the parallel litigation preceded the Board proceeding in *Apple v. Fintiv* by roughly the same amount of time as here (*see* Prelim. Resp. 9–10), in that proceeding, the Board noted how “the identical claims are challenged based on the same prior art in both the Petition and in the District Court.” *Fintiv*, Paper 15, at 15.

Moreover, we are persuaded by Petitioner’s argument that the relatively short six- or seven-week period from the scheduled completion date of the trial in the Delaware Litigation (October 22, 2021) to the due date for the final written decision in this proceeding (December 8, 2021) does not show this factor weighs in favor of exercising discretion to deny. Prelim. Reply 5. Even assuming that the trial takes place as scheduled, the date for completion of the trial will likely not be the date the Delaware District Court issues judgment as to the invalidity of the subset of the claims of the ’746 patent at issue there. In contrast, barring a good cause extension, a final decision in this proceeding must issue on or before December 8, 2021, and will address Petitioner’s challenges as to all claims in the ’746 patent. *See* 35 U.S.C. § 316(a)(11); 37 C.F.R. § 42.100(c).

In addition, we are not persuaded that Petitioner improperly delayed the filing of the Petition here. Notably, in the letter sent to Petitioner in May 2019, Patent Owner did not identify the claims of the ’746 patent allegedly infringed. *See Fintiv*, Paper 11, at 11 (“The Board recognizes, however, that it is often reasonable for a petitioner to wait to file its petition until it learns

which claims are being asserted against it in the parallel proceeding.”). As noted by Petitioner, the Petition was filed less than eight months after the ’746 patent was added to the Delaware Litigation. *See* Prelim. Reply 8.<sup>7</sup>

On the record here, we determine that this factor is neutral as to exercising discretion to deny institution.

*c. Factor 3: investment in the parallel proceeding by the court and the parties*

As to the investment in the Delaware Litigation, Patent Owner highlights that the parties have already served their infringement and invalidity contentions, respectively, as to the ’746 patent and that the Delaware District Court held a technology tutorial and issued a claim construction order. *See* Prelim. Resp. 11 (citing Ex. 2003 (invalidity contentions); Ex. 2001 (docket report)). Patent Owner also states that, under the current scheduling order, fact discovery closes on December 7, 2020, and expert discovery closes on March 19, 2021. *Id.* (citing Ex. 2002, at 2). According to Patent Owner, this factor “strongly favors discretionary denial.” *Id.* at 12.

Petitioner responds that the claim construction order issued in the Delaware Litigation does not address the ’746 patent, but rather, other patents involved in the Delaware Litigation. Prelim. Reply 6 (citing Exs. 1031 & 1032 (claim construction memorandum and order)). Petitioner also argues that “significant efforts are still required in the district court: fact discovery is still ongoing (with no depositions yet taken), and expert

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<sup>7</sup> Although we address Petitioner’s diligence in the context of factor 2 (as done by the parties), this issue is more properly addressed in the context of factor 3, the investment in the parallel proceeding. *See Fintiv*, Paper 11, at 9–12.

discovery and substantive motion practice are yet to come.” *Id.* (citing Ex. 2002).

For this factor, we consider not only the *amount* of work completed in the parallel litigation, but also the *type* of work. *See Fintiv*, Paper 11, at 9. In this way, factors 3 and 4—like factors 2 and 4—are interrelated here. *See id.* at 6 (discussing how “there is some overlap among these factors” and “[s]ome facts may be relevant to more than one factor”). Specifically, we view the relevance of this factor (similar to factor 2) as diminished somewhat when, as discussed below (as to factor 4), here, there is not a significant amount of overlap in the specific issues in the Board proceeding and in the parallel litigation. In general, if considerable effort has been made by the parties and court in a parallel litigation, but that effort addresses largely *different* validity issues as to the ’746 patent, the amount of effort may be less relevant to the efficiency and integrity of the system. *See id.* Although the Delaware Litigation is at a similar point relative to this proceeding as the parallel litigation was in the *Apple v. Fintiv* proceeding, in that proceeding, the Board noted how “the identical claims are challenged based on the same prior art in both the Petition and in the District Court.” *Fintiv*, Paper 15, at 15. In contrast, as discussed in the next subsection, there is considerably less overlap in the issues here and in the Delaware Litigation.

As argued by Petitioner, although the Delaware Litigation was filed over two years ago, significant efforts remain in (and by) the Delaware District Court before that proceeding is fully resolved. Prelim. Reply 6. For example, in less than a year, the parties must exchange three sets of expert reports, take all expert depositions, complete briefing on case-dispositive issues, and prepare for a ten-day trial. *See Ex. 2002*, at 2–3. And the

Delaware District Court will have to decide any case-dispositive issues presented, coordinate any settlement discussions and status conferences, and prepare for trial. *Id.* As argued by Petitioner, the claim construction order highlighted by Patent Owner does not address the '746 patent. *See* Exs. 1031 & 1032. As noted by Patent Owner, however, neither party requested construction for any terms from the '746 patent. *See* Prelim. Sur-reply 6 n.3.

Thus, although the Board in *Apple v. Fintiv* determined that this factor weighs “somewhat in favor” of discretionary denial based on somewhat similar schedule in the parallel litigation, we determine that this factor weighs somewhat against exercising discretion to deny because the efforts have not been towards the same invalidity issues concerning the '746 patent.

*d. Factor 4: overlap between issues raised in the petition and in the parallel proceeding*

Patent Owner asserts that “the grounds Petitioner raises in the Petition substantially overlap with Petitioner’s invalidity contentions in the Delaware Case” because, according to Patent Owner, “Petitioner’s contentions in the Delaware [Litigation] also rely heavily on Zilberman and Saaski.” Prelim. Resp. 12 (citing Ex. 2003, at 7, Ex. E).

Petitioner responds that “only a quarter of the claims challenged here are at issue in the Delaware [Litigation]” and that none of the claims asserted in the Delaware Litigation relate to charging through electrical contacts. Prelim. Reply 6. According to Petitioner, claims 12–16 and 24, the only

claims still asserted in the Delaware Litigation, are “significantly different than the other 18” claims in the ’746 patent. *Id.* at 7.<sup>8</sup>

We first address the degree of overlap in issues based on the *claims* at issue in each proceeding. *See Fintiv*, Paper 11, at 13 (“The existence of non-overlapping claim challenges will weigh for or against exercising discretion to deny institution under *NHK* [*Spring Co. v. Intri-Plex Techs. Inc.*, IPR2018-00752, Paper 8 (PTAB Sept. 12, 2018) (precedential)] depending on the similarity of the claims challenged in the petition to those at issue in the district court.”). As evidenced by the Petition, claims 12–16 and 24 have at least *some* overlap with the other claims, including independent claims 1 and 18 at issue only in this proceeding. For example, claims 12–16 all depend directly from independent claim 10 and thus contain all of its limitations; and limitations 10.1–10.5 and limitation 10.7 in claim 10 are, according to Petitioner, “identical” to limitations 1.1–1.5 and limitation 1.7 in claim 1, respectively. *See, e.g.*, Pet. 30, 31. Similarly, Petitioner states that limitations 18.1–18.6 in independent claim 18 are “identical” to limitations 1.1–1.5 and 1.7, and thus also “identical” to limitations 10.1–10.5 and limitation 10.7. *See, e.g., id.*

There are, however, some features unique to independent claims 1 and 18 at issue only in this proceeding. As noted by Petitioner, limitation 1.6 and “identical” limitation 18.7 (Pet. 31) generally relate to charging through “at least one electrical contact”—a feature not recited in any claim at issue in the Delaware Litigation. In addition, based on the Petition, the features

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<sup>8</sup> Petitioner states that Patent Owner has dropped claims 10, 11, and 17 from its infringement contentions. *See* Prelim. Reply 6–7 (citing Ex. 1034; Ex. 1035, Ex. 2003, at 2 n.1).

recited in dependent claims 2, 5, 8, 11, 17, and 19 would not be addressed in the Delaware Litigation. *See, e.g., id.* at 32–33 (addressing claims 2, 11, and 19 together), 35–37 (addressing claim 5 alone), 39 (addressing claim 8 alone), 41–42 (addressing claim 17 alone).

We turn now to the degree of overlap in issues based on the *art* at issue in each proceeding. *See Fintiv*, Paper 11, at 12–13 (discussing how, “if the petition includes materially different grounds, arguments, and/or evidence than those presented in the district court, this fact has tended to weigh against exercising discretion to deny institution”). Here, we do not agree with Patent Owner that the grounds asserted in this proceeding “substantially overlap” with the invalidity contentions in the Delaware Litigation. Prelim. Resp. 12. In the Delaware Litigation, Petitioner asserts three grounds of invalidity based on prior art: (1) anticipation based on PCT Publication No. WO 03/030772 (“Malta ’772”); (2) anticipation based on Zilberman; and (3) obviousness based on U.S. Patent No. 5,949,895 to Ball (“Ball ’895”) and Saaski. *See Ex. 2003*, at 23–40.

Although the asserted grounds here and in the Delaware Litigation involve Zilberman and Saaski, they are relied on in *different ways* in each proceeding. Here, Zilberman and Saaski are relied on in combination with each other whereas, in the Delaware Litigation, they are relied on as an anticipation reference and in combination with Ball ’895, respectively. *See Ex. 2003*, at 23–40. Further, even if, as Patent Owner argues, Petitioner “was aware” of AAPA “long before filing the Petition” (Prelim. Resp. 12–13), AAPA is not actually before the Delaware District Court as part of the invalidity defense.



We turn now to Patent Owner’s assertion that “in its contentions in the Delaware [Litigation], Petitioner proposes to combine Ball[ ’895]’s disclosure of a cochlear implant system with Saaski, just as Petitioner proposes to combine the so-called AAPA with Peterson in the Petition” and that, therefore, “although Petitioner does not assert exactly the same combinations of references in the Petition as it does in the Delaware [Litigation],” the Delaware District Court “will inevitably be addressing substantially the same issues.” Prelim. Resp. 13. On the particular facts here, we disagree with this line of reasoning. *See, e.g., Oticon Med. AB v. Cochlear Ltd.*, IPR2019-00975, Paper 15, at 23–24 (PTAB Oct. 16, 2019) (precedential as to sections II.B and II.C) (declining to exercise discretion under § 314(a) to deny institution in part because the proceeding would not be “directly duplicative of the District Court action”). Specifically, in assessing (1) whether the combination of Ball ’895 and Saaski renders obvious the claims at issue in the Delaware Litigation and (2) whether the combination of AAPA and Petersen renders obvious the claims at issue in this proceeding, the two tribunals will be making *fundamentally different findings*, in light of the *different references asserted*. Specifically, because of the divergent subject matter of the non-overlapping claims, the Board would be making different finding than the Delaware District Court. That the Board and the Delaware District Court would consider the disclosures of these different references in the context of certain overlapping claims (such as claim 12 of the ’746 patent) does not necessarily mean that “substantially the same issues” *overall* would be before the two tribunals. For these reasons, we determine that this factor weighs against exercising discretion to deny.

*e. Factor 5: whether the petitioner and the defendant in the parallel proceeding are the same party*

The Petitioner here is the same party as the defendant in the Delaware Litigation. Prelim. Resp. 13–14; Prelim. Reply 7. This factor weighs in favor of discretionary denial. *Fintiv*, Paper 15, at 15.

*f. Factor 6: other circumstances that impact the Board’s exercise of discretion, including the merits*

As to other circumstances, Patent Owner argues that “Petitioner raises three grounds based on references that are far less relevant than, and at best cumulative of, references that the Examiner already considered during prosecution before allowing the Challenged Claims.” Prelim. Resp. 14.

We are not persuaded that the asserted lack of relevance of the art presented here or its allegedly cumulative nature impacts the analysis as to this factor.<sup>9</sup>

*3. Conclusion*

After weighing all of the factors and taking a holistic view of the relevant circumstances of this proceeding, we determine that we should not exercise our discretion to deny institution under § 314(a). We weigh heavily the low degree of overlap between the issues raised in the Petition and in the Delaware Litigation, and that the trial date and investment in the Delaware

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<sup>9</sup> Patent Owner did not request briefing to argue for denial under § 314(a) based on the later-filed petition in IPR2021-00044, also challenging claims 1–24 of the ’746 patent. Moreover, Petitioner ranked the Petition in this proceeding first and the petition in IPR2021-00044 second. *See* Paper 11; Consolidated TPG 59–60 (discussing a petitioner filing a ranking of petitions when more than one petition challenges the same patent). We do not consider this issue further.

Litigation by the parties and Delaware District Court relates to different invalidity issues as to the '746 patent.

*D. Discretion Under 35 U.S.C. § 325(d)*

Patent Owner argues that we should exercise our discretion to deny institution under 35 U.S.C. § 325(d) because the Examiner already considered the same or cumulative prior art during prosecution of the '746 patent. Prelim. Resp. 14–20.

*1. Legal Framework*

Section 325(d) provides that, in determining whether to institute an *inter partes* review, “the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.” The Board uses a two-part framework in determining whether to exercise its discretion under § 325(d): (1) determining whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of the first part of the framework is satisfied, determining whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims. *See Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential) (“*Advanced Bionics*, Paper 6”). In applying this framework, we consider several non-exclusive factors, including:

- (a) the similarities and material differences between the asserted art and the prior art involved during examination;
- (b) the cumulative nature of the asserted art and the prior art evaluated during examination;
- (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;
- (d) the extent of the overlap between

the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art; (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

*Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (“*Becton*, Paper 8”) (precedential as to Section III.C.5, first paragraph). If, after review of factors (a), (b), and (d), we determine that the same or substantially the same art or arguments previously were presented to the Office, then factors (c), (e), and (f) relate to whether the petitioner demonstrates that the Office erred in a manner material to the patentability of the challenged claims. *Advanced Bionics*, Paper 6 at 10.

## 2. *Summary of the Prosecution History*

The ’746 patent issued from U.S. Application No. 12/040,888 (“the ’888 application”). *See* Ex. 1001, codes (21), (63). In prosecution of the ’888 application, the Examiner initially relied primarily on Ball ’305<sup>10</sup> and Faltys<sup>11</sup>. *See* Ex. 1006, at 211–17. The applicants argued that Ball ’305’s sound processor was part of a “**fully internal**” hearing aid rather than “**external**” as claimed. *See id.* at 236–40. As to Faltys, the applicants argued that the relied-upon components are not in the same “case” and that “nothing in Faltys even remotely suggests that they are ‘**permanently and integrally**’ housed within [a] **closed** case.” *Id.* at 241–42.

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<sup>10</sup> US 6,190,305 B1, issued February 20, 2001 (“Ball ’305”) (Ex. 1010).

<sup>11</sup> US 6,272,382 B1, issued August 7, 2001 (“Faltys”) (Ex. 1009).

The Examiner then relied primarily on Loeb.<sup>12</sup> *See* Ex. 1006, at 251–56. The applicants argued that the identified “case” in Loeb is not “closed” as required and that the battery is not “permanently and integrally housed within the closed case” as required. *See id.* at 266–67, 298–300.

Next, the Examiner relied on Loeb in view of Raimo.<sup>13</sup> *See* Ex. 1006, at 357–65. The applicant proposed several amendments (*id.* at 375–80) and then argued that Raimo, being directed to a solar-powered hearing aid, had a goal of “eliminating the need for a recharger” (*id.* at 382). Thus, according to the applicants, the proposed combination did not satisfy various limitations related to charging in the independent claims, such as “at least one electrical contact . . . exposed outside the closed case,” “a power coil . . . that selectively receives power from an external charging source and recharges the rechargeable power source,” and “a base station that charges the rechargeable power source.” *Id.* at 381–85.

The Examiner then allowed certain claims and relied primarily on Gibson<sup>14</sup> to reject the others. *See* Ex. 1006, at 394–99. The applicants again proposed various amendments and argued, as to application claim 33 (issued claim 10), that “Gibson does not even remotely suggest that the case is a ‘closed case’ or that the rechargeable batteries are ‘permanently and integrally housed within the closed case,’” and that “Gibson also fails to disclose . . . ‘an external sound processor including . . . a power coil . . . that selectively receives power from an external charging source and recharges the rechargeable power source when the sound processor is in

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<sup>12</sup> US 5,571,148, issued November 5, 1996 (“Loeb”) (Ex. 1011).

<sup>13</sup> US 5,303,305, issued April 12, 1994 (“Raimo”) (Ex. 1012).

<sup>14</sup> WO 02/41666 A1, published May 23, 2002 (“Gibson”) (Ex. 1013).

proximity to the external charging source.” *Id.* at 442–43. As to application claim 54 (issued claim 24), the applicants argued that “nothing [in] Gibson even remotely suggests” that any of its external cases “lacks a battery removal door.” *Id.* at 444. The ’746 patent then issued. *Id.* at 453–59. Saaski was listed on an Information Disclosure Statement during prosecution, but the Examiner did not rely on Saaski in any of the rejections. *Id.* at 38, 225. Petersen and Zilberman were not before the Examiner.

### 3. *Analysis*

Patent Owner argues that the *Becton* “factors all weigh against institution.” Prelim. Resp. 15. As to the factors (a) and (b), Patent Owner argues that “[a]lthough the Examiner did not issue any rejections based on th[e] so-called AAPA, the Examiner expressly addressed and issued rejections based on cumulative references disclosing cochlear implant systems,” including Faltys, Loeb, and Gibson. Prelim. Resp. 16.

Patent Owner notes that the applicants cited Saaski on an IDS, which was signed by the Examiner. Prelim. Resp. 16 (citing Ex. 1006, at 38, 225). Patent Owner then asserts that the Examiner did not issue any rejections based on Saaski because its “disclosure of hearing aid features is cumulative of, and far less relevant than, other references directed to cochlear implant systems that were before the Examiner.” *Id.* According to Patent Owner, Saaski is cumulative of Loeb, Faltys, and Gibson, all of which lack a “closed case.” *Id.* at 17. Patent Owner argues that, “like Saaski, Petersen fails to disclose claimed features including a battery integrally housed in a ‘closed case’ . . . .” and is also cumulative of “more relevant cochlear implant references such as Loeb, Faltys, and Gibson.” *Id.* at 18. Patent Owner also asserts that Zilberman “fails to disclose an ‘external’ cochlear implant sound

processor with a battery that is integrally housed in a ‘closed case’” and that Zilberman is cumulative of Loeb, Faltys, and Gibson. *Id.* As to factors (c) and (d), Patent Owner repeats the position that the relied-upon references (1) are cumulative of Loeb, Faltys, and Gibson and (2) all lack a battery integrally housed in a “closed case.” *Id.* at 19. As to factors (e) and (f), Patent Owner argues that Petitioner has not explained how the Examiner erred. *Id.* at 19–20.

Petitioner argues that factors (a), (b), and (d) do not support denial. *See* Pet. 12–22. Specifically, Petitioner argues that neither Petersen nor Zilberman was cited or discussed during prosecution. *See id.* at 14–15, 16–17. Petitioner also argues that although Saaski was cited during prosecution, the Examiner “never considered [its] highly material prior art teachings, which render the challenged claims unpatentable.” *Id.* at 19. Finally, Petitioner argues that “the Examiner did not mention the AAPA” during prosecution and that the “focus of the prosecution history was the power management features,” for which Petitioner does not rely on AAPA. *Id.* at 21–22.

We first consider “whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office.” *Advanced Bionics*, Paper 6 at 8. Petitioner bases its first asserted ground on AAPA and Petersen. Pet. 4. Patent Owner is correct that AAPA was “before” the Examiner during prosecution. Prelim. Resp. 16. However, Petersen—which was not cited or discussed during prosecution—is relied on for certain limitations Patent Owner asserts were lacking in the art discussed during prosecution, such as the requirement for a “closed case.” *See* Pet. 25–28;

Prelim. Resp. 18 (arguing that “Petersen fails to disclose claimed features including a battery integrally housed in a ‘closed case’”). For the reasons discussed below (*see infra* § II.E.3.b (second argument)), to the extent Petitioner continues to pursue this asserted ground, we preliminarily determine that Petitioner has made an adequate showing that the proposed modification to the combination of AAPA and Petersen satisfies the “closed case” requirement. This difference sufficiently distinguishes the combination of AAPA and Petersen from the prior art at issue during prosecution. Thus, we conclude that Petitioner bases its first asserted ground on prior art and arguments that are not the same or substantially the same as the prior art or arguments before the Examiner.

Petitioner bases its second asserted ground on Zilberman and Saaski. Pet. 4. Saaski was “presented to the Office” on an Information Disclosure Statement during prosecution, although never discussed; Zilberman was not before the Office. In this asserted ground, Zilberman is relied on—at least in the alternative—for every limitation in claims 10–17 and 24, except for limitation 24.7, including many of the limitations Patent Owner asserts were lacking in the art discussed during prosecution, such as the requirement for a “closed case.” *See* Pet. 47–69; Prelim. Resp. 18 (arguing that Zilberman “fails to disclose an ‘external’ cochlear implant sound processor with a battery that is integrally housed in a ‘closed case’”).

For the reasons discussed below (*see infra* § II.F.3.a.1), we preliminarily determine that Petitioner has made an adequate showing that Zilberman discloses the “closed case” requirement. This difference sufficiently distinguishes the combination of Zilberman and Saaski from the prior art at issue during prosecution. *See also* Pet. 17 (arguing that



Zilberman “is materially different, and closer, than any of the prior art considered by the Examiner” (citing Najafi Decl. ¶ 68)). Thus, we conclude that Petitioner bases its second asserted ground on prior art and arguments that are not the same or substantially the same as the prior art or arguments before the Examiner.

Petitioner bases its third asserted ground on AAPA, Zilberman, and Saaski. Pet. 4. For the same reasons discussed above as to the second asserted ground (Zilberman and Saaski), we conclude that Petitioner bases its third asserted ground on prior art and arguments that are not the same or substantially the same as the prior art or arguments before the Examiner.

Based on the foregoing, we determine that none of the grounds in the Petition rely on the same or substantially the same prior art or arguments as the art and arguments before the Examiner. Accordingly, the first part of the framework set forth in *Advanced Bionics* is not met. We need not reach “whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.” *Advanced Bionics*, Paper 6, at 8–9. After considering the framework set forth in *Advanced Bionics* and the appropriate *Becton* factors, the facts of this case do not indicate that we should exercise our discretion under § 325(d) to deny institution.

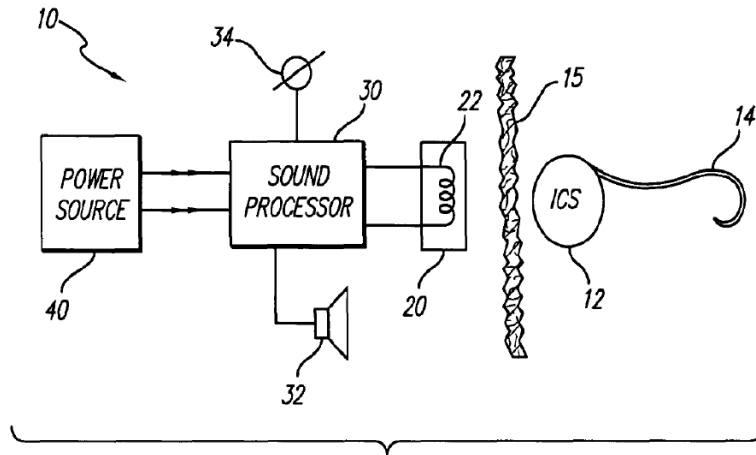
*E. Asserted Obviousness of Claims 1–24 Based on AAPA and Petersen*

Petitioner asserts that claims 1–24 of the ’746 patent are unpatentable under 35 U.S.C. § 103(a) based on AAPA and Petersen. Pet. 4, 23–47; Prelim. Reply 1–4. Patent Owner provides arguments specifically addressing this ground. Prelim. Resp. 20–44; Prelim. Sur-reply 1–4. We first summarize aspects of AAPA and Petersen.

1. *AAPA*

As AAPA, Petitioner identifies (1) Figures 1 and 2 of the '746 patent (both labeled "Prior Art"), (2) column 1, lines 22–28, (3) column 3, lines 21–24, and (4) column 3, line 47 through column 4, line 55. *See* Pet. 20.

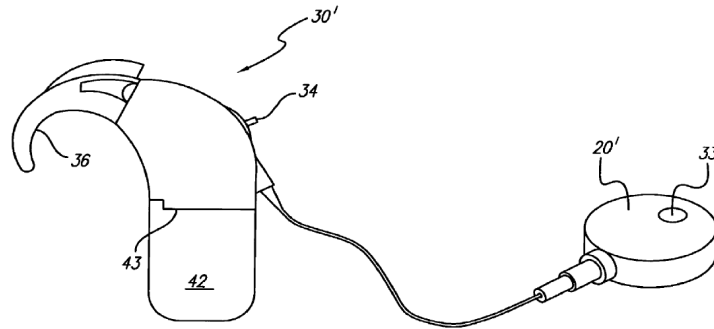
Figure 1 of the '746 patent is reproduced below:



**FIG. 1**  
PRIOR ART

Figure 1 depicts “a block diagram of a prior art cochlear implant system.” Ex. 1001, 3:21–22. Describing Figure 1, AAPA discloses that “system 10 includes an implantable cochlear stimulator (ICS) 12 to which an electrode array 14 is attached” and that external components of system 10 “include a headpiece 20, a sound processor 30 and a power source 40” as well as a “microphone 32 [that] is connected to the sound processor 30.” Ex. 1001, 3:48–50, 3:56–59. AAPA provides that “power source 40 typically comprises primary batteries that can be thrown away when depleted and replaced with new batteries, or rechargeable batteries that can be recharged.” *Id.* at 3:64–67. AAPA describes how sound signals received by microphone 32 are processed, applied to coil 22, and then received by ICS 12. *See id.* at 4:1–10.

Figure 2 is reproduced below:

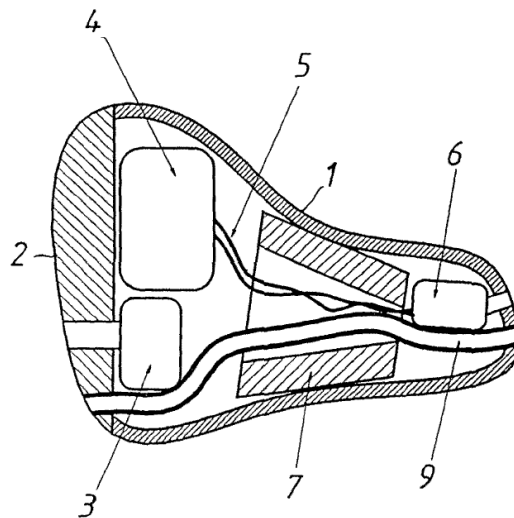


**FIG. 2**  
*PRIOR ART*

Figure 2 depicts “a representative prior art behind-the-ear (BTE) sound processor [30’] with its associated headpiece [20’].” Ex. 1001, 2:23–24, 4:28–29. Discussing Figure 2, APA describes potential problems with battery module 42 and the related battery door (with boundary line 43 defining the beginning of the door). *See id.* at 4:37–55.

## 2. Petersen

Petersen discloses a hearing aid powered by a rechargeable battery. *See* Ex. 1017, 2:9–29. Figure 1 of Petersen is reproduced below:



**Fig. 1**

Figure 1 depicts “an ‘in-the-ear’ hearing aid.” Ex. 1017, 3:11–12. More specifically, Figure 1 shows housing 1 for placement in the ear, cover 2, microphone 3, amplifier 4, leads 5, and sound-producing transducer 6. *See id.* at 3:30–4:9. The hearing aid in Figure 1 also includes battery 7, which Petersen discloses is not intended “to be replaced with short intervals, being as it is a rechargeable battery.” *Id.* at 4:29–31.

### 3. *Analysis*

#### *a. Petitioner’s Reliance on AAPA*

Petitioner contends that the proposed combination of AAPA and Petersen discloses each of the limitations of claims 1–24. Pet. 4, 23–47. On August 19, 2020, after the filing of the Petition, the Director of the United States Patent and Trademark Office issued a memorandum setting forth binding guidance on how the Board shall consider statements by a patent applicant in a patent specification regarding the prior art when those statements are relied on in support of a request for *inter partes* review. *See* Memorandum from Andrei Iancu to Members of the Patent Trial and Appeal Board (Aug. 18, 2020), [https://www.uspto.gov/sites/default/files/documents/signed\\_aapa\\_guidance\\_memo.pdf](https://www.uspto.gov/sites/default/files/documents/signed_aapa_guidance_memo.pdf) (“AAPA Guidance”). In the Preliminary Response, Patent Owner discusses the AAPA Guidance and asserts (among other arguments) that this ground “fails to comply with 35 U.S.C. § 311(b) because it is improperly based on the so-called AAPA.” Prelim. Resp. 20; *see also id.* at 20–23. Given the timing of the issuance of the AAPA Guidance, we *sua sponte* authorized Petitioner to file a Preliminary Reply addressing the AAPA Guidance, and authorized Patent Owner to file a Preliminary Sur-reply. *See* Papers 8–10.

In the Preliminary Response, Patent Owner highlights the statutory requirement that a petitioner in an *inter partes* review may challenge the claims of a patent “only on the basis of prior art consisting of patents or printed publications.” 35 U.S.C. § 311(b), *quoted at* Prelim. Resp. 20. According to Patent Owner, the “purported admissions [in AAPA] are not ‘patents or printed publications’ on which an IPR may be properly based.” Prelim. Resp. 21. Patent Owner then quotes a portion of the AAPA Guidance, providing: “The generally understood meaning of ‘basis’ supports reading § 311(b) to require that at least one prior-art patent or printed publication form the ‘foundation or starting point’ of the IPR.” AAPA Guidance 6, *quoted at* Prelim. Resp. 22. Patent Owner asserts that “Petitioner does not rely on the so-called AAPA merely to supply information regarding the general knowledge of [one of ordinary skill in the art], but rather as a body of prior art that it treats as essentially a single primary reference that forms the ‘foundation or starting point’” for this asserted ground. Prelim. Resp. 22.

Petitioner responds that “the *substantive focus* or ‘basis’ of the [P]etition is the disclosure of [the ’746 patent’s] allegedly novel power management features in the prior art” of Petersen, Zilberman, and Saaski, “not typical cochlear implant features well known in the art.” Prelim. Reply 1. Thus, according to Petitioner, the “basis” of this ground is Petersen, not AAPA. *Id.* at 2. Petitioner argues that, under the AAPA Guidance, a petitioner “can use AAPA to supply missing claim limitations generally known in the prior art and to support a motivation to combine – and that is exactly what Petitioner did.” *Id.* (citing Pet. 24, 28, 29, 33–47, 71–74).

At this stage of the proceeding, and based on the briefing submitted to date, we preliminarily determine that Petitioner improperly relies on AAPA. The AAPA Guidance provides an interpretation of § 311(b), binding on the Board, that AAPA cannot be used as the “basis”—i.e., the “foundation or starting point”—of an obviousness ground. *See* AAPA Guidance 3 (“In other words, the challenged patent itself, or any statements therein, cannot be the ‘basis’ of an IPR.”), 6 (defining “basis” in § 311(b) as “foundation or starting point”). On the particular facts here, we preliminarily determine that Petitioner used AAPA as the “foundation or starting point” of this asserted ground. For independent claim 1, Petitioner relies solely on AAPA for limitation 1.1 (“A cochlear implant system, comprising: an implantable cochlear stimulator”) and limitation 1.7 (“a coil operably connected to the sound processor circuit”). *See* Pet. 24, 29–30.<sup>15</sup> For limitations 1.2 (“an external sound processor”) and 1.4 (“a sound processor circuit”), Petitioner first lists disclosures in AAPA and then lists disclosures in Petersen. *Id.* at 24–25, 28. And for limitations 1.3 (“a closed case”), 1.5 (“a rechargeable power source permanently and integrally housed within the closed case”), and 1.6 (“at least one electrical contact . . .”), Petitioner relies solely on Petersen. *Id.* at 25–29. Although relying solely on AAPA to address the preamble does not *necessarily* indicate AAPA is the “foundation or starting point,” on the facts here, Petitioner’s reliance on AAPA as to several structural and functional limitations for a cochlear implant system, and

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<sup>15</sup> Petitioner also cites to other patents, but, according to Petitioner, those patents are also AAPA as they are allegedly incorporated by reference into AAPA. *See* Pet. 24 & 30 (discussing “incorporated U.S. Patents”), 21 (discussing the additional patents and asserting that “[t]he subject matter of those patents is therefore part of the AAPA”).

reliance on Peterson for only an additional electrical system, renders AAPA as the “basis” of this ground. *Cf.* Prelim. Reply 3 (“Patent Owner’s understanding of the AAPA Guidance Memo essentially boils down to whether AAPA is used to supply the first claim limitation – in many cases the preamble – as that limitation will usually be, under Patent Owner’s formalistic understanding, the ‘foundation or starting point.’”).

The determination that AAPA is the “foundation or starting point” of this ground is also strongly supported by Petitioner’s framing of the proposed modification as

combin[ing] a cochlear implant system with typical cochlear implant features, as described in the AAPA, with the concept of a “permanently and integrally housed” battery that is recharged *in situ* through either direct electrical contacts on the device’s surface or inductive charging, as described in Petersen, and thereby arrive at the claimed invention.

Pet. 44–45; *see also id.* at 47 (stating that one of ordinary skill in the art “would have been motivated and capable . . . of applying Petersen’s power management techniques to the known cochlear implant system described in the AAPA, and would have recognized and expected that they would improve the system of the AAPA by alleviating the problems of replaceable batteries”), 22 (stating that “Petitioner relies on the typical cochlear implant features described in the AAPA, combined with the power management features of Petersen”). On this issue, we agree with Patent Owner that, in this asserted ground, “Petitioner starts with the AAPA, which Petitioner asserts to teach cochlear implant systems, and proposes to modify the sound processor of such cochlear implant systems to incorporate unrelated hearing aid features.” Prelim. Sur-reply 1.

As to Petitioner’s assertion that the “basis” of this asserted ground is Petersen because that reference discloses the “allegedly novel power management features” (Prelim Resp. 1–2), the AAPA Guidance defines “basis” as “foundation or starting point” not as the alleged point of novelty. *See* AAPA Guidance 6; *see also* Prelim. Sur-reply 3 (arguing that Petitioner proposes “a completely different and unworkable standard that looks to the ‘substantive focus’ or alleged point of novelty”).

We also do not agree with Petitioner’s position that the AAPA Guidance permits reliance on AAPA to supply missing claim limitations *in all situations*. *See* Prelim. Reply 4 (“AAPA, in contrast, can be used ‘to supply missing claim limitations that were generally known in the art prior to the invention’ (AAPA Guidance Memo at 9) – *i.e.*, ‘the scope and content of the prior art’ under *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).”); *see also id.* at 2 (“Under the AAPA Guidance Memo, Petitioner can use AAPA to supply missing claim limitations generally known in the prior art and to support a motivation to combine – and that is exactly what Petitioner did.”). For example, in the “Conclusion” section, the AAPA Guidance provides certain permissible uses for AAPA—including “to supply missing claim limitations that were generally known in the art prior to the invention” (as quoted by Petitioner (Prelim. Reply 4))—but, in the same sentence, *expressly* limits the listed uses to *only* situations in which “the basis of the IPR is one or more prior art patents or printed publications.” AAPA Guidance 9; *see also id.* at 4 (“Statements in a challenged patent’s specification may be used, however, when they evidence the general knowledge possessed by someone of ordinary skill in the art. That evidence, *if used in conjunction with one or more prior art patents or printed*



*publications forming ‘the basis’ of the proceeding under § 311, can support an obviousness argument.” (emphasis added)).*

For these reasons, we preliminarily determine that Petitioner improperly relies on AAPA as the “basis” of this ground, contrary to the interpretation of § 311(b) in the AAPA Guidance. Nevertheless, because the Petition shows a reasonable likelihood that Petitioner would prevail with respect to at least one of the challenged claims based on at least one of the asserted grounds, we include this ground in the instituted *inter partes* review. *See SAS*, 138 S. Ct. at 1354, 1359–60; Consolidated TPG 64.

As to Patent Owner’s argument that, based on Petitioner’s reliance on AAPA, “the Board lacks statutory authority to institute” this asserted ground (Prelim. Resp. 23), we note that the Board generally does not institute on fewer than all grounds asserted in a petition. *See Consolidated TPG 64* (“In instituting a trial, the Board will either (1) institute as to all claims challenged in the petition and on all grounds in the petition, or (2) institute on no claims and deny institution.”). In addition, our determination on this issue is merely preliminary. The parties may wish to further address this issue in the briefing at trial.<sup>16</sup>

*b. Discussion of Patent Owner’s Other Arguments*

To the extent Petitioner continues to pursue this asserted ground, we provide the following discussion of Patent Owner’s four arguments as to the

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<sup>16</sup> In addition, to the extent Petitioner continues to pursue this asserted ground, the parties may wish to further develop the issue of whether Petitioner properly relies on the additional U.S. patents purportedly incorporated by reference into AAPA. *See Pet. 21* (discussing the additional U.S. patents); Prelim. Resp. 23–26 (arguing that Petitioner’s reliance is improper). Petitioner has not addressed this issue in the briefing thus far.

merits. First, Patent Owner argues that Petitioner fails to adequately define this asserted ground. *See* Prelim. Resp. 26–29 (discussing 35 U.S.C. § 312(a)(3) and 37 C.F.R. § 42.104(b)(2)). At this stage of the proceeding, we are not persuaded that this argument identifies a deficiency in this asserted ground. In essence, this argument is a reframing of Patent Owner’s argument that Petitioner improperly relies on the additional U.S. patents purportedly incorporated by reference into AAPA. *Compare* Prelim. Resp. 26–29, *with id.* at 23–26. To the extent Petitioner properly relied on the alleged incorporation by reference as AAPA, and properly relied on AAPA in general (*see supra* § II.E.3.a), we are able to discern sufficiently which of the additional U.S. Patents are relied upon.

Second, Patent Owner argues that the proposed combination of AAPA and Petersen fails to satisfy the requirement for a “power source” or “battery” that is “permanently and integrally housed within the closed case” as recited in each independent claim. *See* Prelim. Resp. 29–33. For the reasons argued by Patent Owner (*id.* at 30–31), we preliminarily agree that the modified device of Petitioner’s first alternative position (*see* Pet. 25–27) does not satisfy this requirement as the identified “closed case”—Petersen’s housing 1 and cover 2—have not been shown to “permanently and integrally” house the power source. As to Petitioner’s second alternative position—involving the obviousness of removing any battery door (*see* Pet. 27–28)—we are persuaded that Petitioner has made an adequate showing as to this limitation at this stage of the proceeding. Patent Owner asserts that the reasoning provided by Petitioner for this modification is only in the ’746 patent (*see* Prelim. Resp. 32), but Petitioner provides support in various prior art patents, as well as the Najafi Declaration. *See* Pet. 27–28.

Third, Patent Owner argues that the proposed combination of AAPA and Petersen fails to satisfy the requirement for a “power coil . . . that selectively receives power from an external power source,” as required by claims 10–17. *See* Prelim. Resp. 33–35. We are not persuaded by this argument at this stage of the proceeding. For reasons similar to those discussed in detail below (*see infra* § II.F.3.a.2), we are sufficiently persuaded by Petitioner’s argument and evidence (including the Najafi Declaration) that Petersen inherently discloses this requirement. *See* Pet. 30–31 (citing Najafi Decl. ¶¶ 104–105; *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347 (Fed. Cir. 1999)).

Fourth, Patent Owner argues that Petitioner has failed to establish that one of ordinary skill in the art would have been motivated to make the modifications proposed. *See* Prelim. Resp. 35–44. At this stage of the proceeding, we determine that Petitioner has adequately shown that one of ordinary skill in the art would have modified AAPA with Petersen as proposed. *See, e.g.*, Pet. 27–28, 42–47. Notably, Petitioner’s position on this issue is supported by the Najafi Declaration. *See, e.g.*, Pet. 27–28 (citing Najafi Decl. ¶ 91), 42–47 (citing Najafi Decl. ¶¶ 148–154). In contrast, Patent Owner relies on attorney argument as to how one of ordinary skill in the art would have understood the prior art. *See, e.g.*, Prelim. Resp. 39 (asserting that “those in the art working on designing cochlear implant systems recognized that hearing aids are fundamentally different, both structurally and functionally”). The parties may wish to continue to develop these issues during trial.

*F. Asserted Obviousness of Claims 10–17 and 24 Based on Zilberman and Saaski*

Petitioner asserts that claims 10–17 and 24 of the '746 patent are unpatentable under 35 U.S.C. § 103(a) based on Zilberman and Saaski. Pet. 4, 47–70. Patent Owner provides arguments specifically addressing this ground. Prelim. Resp. 45–55. We first summarize aspects of Zilberman and Saaski.

*1. Zilberman*

Zilberman discloses “a system for enhancing hearing comprised of both a middle ear implant and a cochlear implant.” Ex. 1018 ¶ 6.

Figures 1 and 2 of Zilberman are reproduced below:

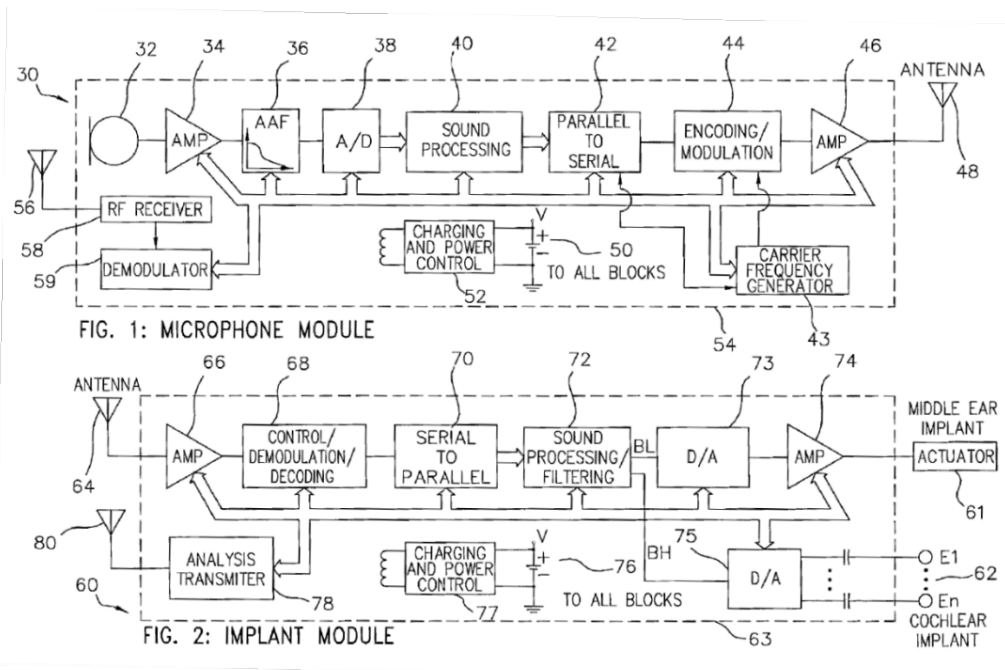


Figure 1 is “is a block diagram of an exemplary microphone module” and Figure 2 is “a block diagram . . . depicting a system including both middle ear and cochlea implants.” Ex. 1018 ¶¶ 9–10. We begin with Figure 2, which shows implant module 60 for driving actuator 61 implanted in a patient’s middle ear and also shows an array of electrodes 62 implanted in a

patient's cochlea. *Id.* ¶ 14. The middle ear implant and cochlear implant handle different frequency ranges. *Id.* Implant module 60 also includes receive antenna 64 for communicating with antenna 48 of microphone module 30 (shown in Figure 1).

Figure 1, in turn, shows microphone module 30, which includes microphone 32 as well as signal processing components to produce a radio frequency signal transmitted to antenna 48 (and received by antenna 64 shown in Figure 2). Ex. 1018 ¶ 11. Microphone module 30 is powered by battery 50, which is preferably rechargeable and may be charged “by charging and power control circuit 52 from, for example, energy extracted from an alternating magnetic field provided by an external source (not shown).” *Id.* Microphone module 30 is “intended to be either implanted in a patient's body or worn externally.” *Id.* In addition, Zilberman discloses:

All of the elements of F[igure] 1 are preferably contained in a housing 54 which is hermetically sealed and suitable for implanting in a patient's body near to the middle ear and inner ear. Alternatively, the housing 54 can be worn externally, as on a patient's belt or behind the patient's ear.

Ex. 1018 ¶ 11.

## 2. *Saaski*

Saaski discloses a “rechargeable hearing aid system in which a rechargeable hearing aid may be optically or inductively recharged by an optical or an inductive recharger.” Ex. 1021, code (57).

Figure 5 of Saaski is reproduced below:

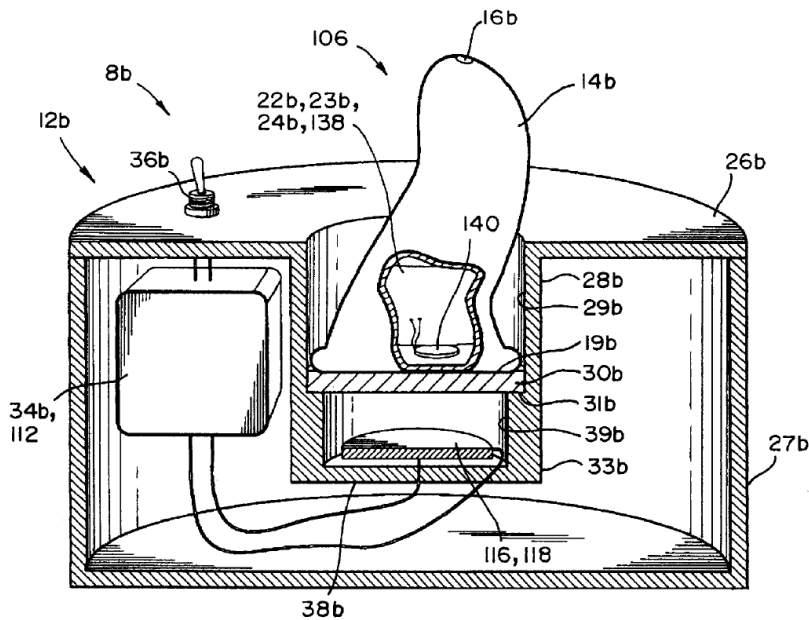


FIG. 5

Figure 5 is “a perspective view, partially in cross-section and partially broken away, of [an] inductively rechargeable hearing aid system.”

Ex. 1021, 6:41–43. Specifically, hearing aid system 8b includes inductively rechargeable hearing aid 10b and inductive charger 12b. *Id.* at 14:19–27; *see also id.* at 4:2–22 (further discussing inductive charging). Saaski discloses that the external surface of hearing aid 10b does not need any electrical contacts for inductive charger 12b to recharge rechargeable battery 24b. *Id.* at 14:35–39.

### 3. Analysis

#### a. Independent Claim 10

For independent claim 10, Petitioner contends that the proposed combination of Zilberman and Saaski discloses each of the limitations. Pet. 48–59. To support its arguments, Petitioner identifies certain passages in the cited references and explains the significance of each passage with

respect to the corresponding claim limitation. *Id.* Petitioner also articulates reasons to combine the relied-upon aspects of Zilberman and Saaski. *Id.* at 69–70. Patent Owner (1) argues that the proposed combination fails to satisfy the requirement for an “external sound processor” that includes a power source that is “permanently and integrally housed within [a] closed case,” (2) argues that the proposed combination fails to satisfy the requirement for a “power coil . . . that selectively receives power from an external charging source,” and (3) challenges the articulated reasons to combine Zilberman and Saaski. *See* Prelim. Resp. 45–55.

We have reviewed Petitioner’s contentions with respect to the limitations of claim 10 and, for the reasons below, we determine that the Petition shows a reasonable likelihood that Petitioner would prevail in demonstrating that claim 10 would have been obvious based on Zilberman and Saaski. Pet. 48–59, 69–70. We address in turn below each of Patent Owner’s arguments.

*(1) The Composite Requirements*

Taken together, limitations 10.2, 10.3, and 10.5 require an “external sound processor” that includes a power source that is “permanently and integrally housed within [a] closed case.”<sup>17</sup> Ex. 1001, 9:5–8. For the requirement from limitation 10.2 for an “external sound processor,” Petitioner highlights Zilberman’s disclosure that “**microphone module 30** [is] intended to be either implanted in a patient’s body or worn **externally**.” Pet. 48 (quoting, with emphasis added, Ex. 1018 ¶ 11). According to Petitioner, “microphone module 30, which turns sound signals into electrical

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<sup>17</sup> For brevity, we will refer to these requirements, together, as the “Composite Requirements.”

stimulation signals . . . , meets the ‘sound processor’ limitation.” *Id.* at 49 (citing Najafi ¶¶ 159–160). Petitioner also highlights Saaski’s disclosure of a “**signal processor.**” *Id.* (citing Ex. 1021, 7:57–60).

For the requirement from limitation 10.3 for a “closed case” included in the “external sound processor,” Petitioner discusses aspects of both Zilberman and Saaski. *See* Pet. 49–51 (citing Najafi Decl. ¶¶ 161–163). As to Zilberman, Petitioner highlights the disclosure that “[a]ll of the elements of F[igure] 1 are preferably contained in a **housing 54 which is hermetically sealed** and suitable for implanting in a patient’s body near to the middle ear and inner ear.” Pet. 49 (quoting, with emphasis added, Ex. 1018 ¶ 11). According to Petitioner, “hermetically sealed housings that are suitable for implanting in a patient’s body, are air tight and closed, without any doors or openings that are removable, so they can protect the components inside against damage by external elements such as moisture or biological fluids.” Pet. 50. As to Saaski, Petitioner states that “‘shell’ 14 and 14b of Saaski is depicted in Figs. 1 and 5 as closed.” Pet. 50; *see* Pet. 49 (citing Ex. 1021, 7:48–65). According to Petitioner, “[b]y further describing the use of a rechargeable battery that is recharged *in situ* by inductive charging . . . and can last for a period of up to five years, the description in Saaski, too, makes clear that the ‘shell’ is closed and has no battery removal door.” Pet. 50–51; *see also* Pet. 50 (citing Ex. 1021, 14:19–39, 26:1–26:3).

For the requirement from limitation 10.5 for “a rechargeable power source permanently and integrally housed within the closed case,” Petitioner again discusses aspects of both Zilberman and Saaski. *See* Pet. 51–53 (citing Najafi Decl. ¶¶ 167–169). As to Zilberman, Petitioner states that “Zilberman’s microphone module 30 is powered by a rechargeable battery



50.” Pet. 52; *see also* Pet. 51 (citing Ex. 1018 ¶ 11). Petitioner contends that “[b]attery 50 and its charging and power control circuit 52 are all hermetically sealed in housing 54” and that, “[b]ecause it is hermetically sealed and it is suitable for implanting in a patient’s body, housing 54 is closed and does not have any doors, and ‘permanently and integrally’ houses the ‘rechargeable power source.’” Pet. 52. As to Saaski, Petitioner states, “Saaski describes the use of a rechargeable battery that is recharged *in situ* by inductive charging, can last for a period of up to five years, and is placed in a closed ‘shell’” and, thus, Saaski “makes clear that the battery is not replaceable by the user in the normal course of using the device, but is permanently and integrally housed within the ‘shell.’” Pet. 52–53; *see also* Pet. 52 (citing Ex. 1021, 1:12–13, 4:2–19, 4:23–6:19, 11:30–34, 18:49–33:22, Figs. 1, 5, 10–22).

Patent Owner argues that the proposed combination fails to satisfy the requirement for an “external sound processor” with a power source that is “permanently and integrally housed within [a] closed case”—i.e., the Composite Requirements. Prelim. Resp. 45–49. For the reasons below, at this stage of the proceeding, Patent Owner’s argument does not identify a deficiency in Petitioner’s positions.

As to Petitioner’s reliance on Zilberman, Patent Owner argues that Petitioner “misapprehends Zilberman’s disclosure.” Prelim. Resp. 45. According to Patent Owner, “Zilberman describes an implantable microphone module and mentions in passing an alternative, external embodiment of the microphone module,” but Petitioner “conflates these two embodiments and assumes without support that features of the former are

included in the latter.” *Id.* At issue here are three sentences in paragraph 11 of Zilberman:

Attention is now directed to FIG. 1 which illustrates an exemplary microphone module 30 intended to be either implanted in a patient’s body or worn externally.

. . .

All of the elements of FIG. 1 are preferably contained in a housing 54 which is hermetically sealed and suitable for implanting in a patient’s body near to the middle ear and inner ear. Alternatively, the housing 54 can be worn externally, as on a patient’s belt or behind the patient’s ear.

Ex. 1018 ¶ 11. The parties disagree as to the proper interpretation of these sentences. Patent Owner views the first sentence as introducing *two different embodiments* of microphone module 30—an external embodiment and an implanted embodiment—with the second sentence addressing *solely* the implanted embodiment and the third sentence addresses *solely* the external embodiment. *See* Prelim. Resp. 45–48; *see, e.g., id.* at 46 (“In the Petition, Petitioner points to the fact that Zilberman’s implantable embodiment is ‘hermetically sealed’ as teaching a battery that is ‘permanently and integrally housed within the closed case.’” Pet. 49–52. But this *implantable* embodiment, is not an ‘*external*’ sound processor as required by the Challenged Claims.”). Thus, according to Patent Owner, Petitioner improperly relies on different aspects of these alleged two embodiments to address the Composite Requirement—i.e., Petitioner relies on the *external* embodiment for limitation 10.2 but relies on the “hermetically sealed” description of the *implanted* embodiment for limitations 10.3 and 10.5. *Id.* In contrast, Petitioner views the three sentences from paragraph 11 of Zilberman quoted above as disclosing only

one “hermetically sealed” embodiment, which is “suitable for implanting” but also could, *in the alternative*, “be worn externally.” *See* Pet. 48–53.

At this stage of the proceeding, we determine that the record adequately supports Petitioner’s position on this issue. For example, Dr. Najafi supports Petitioner’s view as to how one of ordinary skill in the art would understand the relevant aspects of Zilberman. *See* Najafi Decl. ¶ 168, *cited at* Pet. 53. Patent Owner, in contrast, does not (at least at this stage of the proceeding) have testimonial evidence as to how one of ordinary skill in the art would understand those disclosures in Zilberman. For example, Patent Owner argues that it would not “even make sense” to hermetically seal the alleged external embodiment of microphone module 30 as it would be “unnecessary and cumbersome.” Prelim. Resp. 46–47. In support, however, Patent Owner merely cites to paragraph 11 of Zilberman. *Id.*

The parties should further develop this issue at trial, however, as the full record may support Patent Owner’s view. For example, the record may, at the close of trial, more strongly support Patent Owner’s view that the word “[a]lternatively” at the beginning of the third sentence above is drawing a contrast with the *entirety* of the second sentence rather than merely the latter portion of that sentence (i.e., following “and”). *See* Prelim. Resp. 46.

As to Petitioner’s reliance on Saaski for the Composite Requirements, Patent Owner argues that Petitioner has not adequately supported why the identified “shell” in Saaski is “closed” and that Petitioner has conflated the requirements for a “closed case” and an “integrally housed” battery. Prelim. Resp. 49. We understand Petitioner to rely on Saaski’s disclosures of a rechargeable battery potentially lasting up to five years as somehow

indicating that the “shell” is “closed” and that the battery is “integrally housed.” *See, e.g.*, Pet. 50–51 (“By further describing the use of a rechargeable battery that is recharged *in situ* by inductive charging . . . and can last for a period of up to five years, the description in Saaski, too, makes clear that the ‘shell’ is closed and has no battery removal door.”), 52–53. At this stage of the proceeding, however, it is unclear whether Petitioner relies on an inherency theory,<sup>18</sup> an implicit disclosure theory,<sup>19</sup> or another theory. To the extent Petitioner relies on inherency, at this stage, we agree with Patent Owner that the logic of Petitioner’s theory is difficult to fully discern. For example, one could certainly contemplate the presence of (and benefits of) a long-lasting battery in a “closed case,” even if the battery is not necessarily “permanently and integrally housed within the closed case.” To the extent Petitioner continues to rely on Saaski for the Composite Requirements, Petitioner should explain why the record supports its position.

For these reasons, at this stage of the proceeding and on the current record, we determine that Petitioner has made a sufficient showing that at least one of Zilberman or Saaski discloses the Composite Requirements.

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<sup>18</sup> *See, e.g., Southwire Co. v. Cerro Wire LLC*, 870 F.3d 1306, 1311 (Fed. Cir. 2017).

<sup>19</sup> *See IXI IP, LLC v. Samsung Elecs. Co.*, 903 F.3d 1257, 1262–65 (Fed. Cir. 2018) (analyzing an implicit disclosure theory in an appeal from the PTAB); *see also In re Burckel*, 592 F.2d 1175, 1179 (CCPA 1979) (“Under 35 U.S.C. § 103, a reference must be considered not only for what it expressly teaches, but also for what it fairly suggests.”); *In re Lamberti*, 545 F.2d 747, 750 (CCPA 1976) (“[T]he question under 35 U.S.C. § 103 is not merely what the references expressly teach but what they would have suggested to one of ordinary skill in the art at the time the invention was made.”).

(2) *The “Selectively Receives” Limitation*

Limitation 10.6 recites “a power coil . . . that selectively receives power from an external charging source.” Ex. 1001, 9:8–10 (“the ‘selectively receives’ limitation”). To address this requirement, Petitioner relies on aspects of Zilberman and, in the alternative, Saaski. *See* Pet. 53–56. Petitioner first identifies charging and power control circuit 52 in Zilberman as the recited “power coil” and highlights the disclosure that the rechargeable battery “**can be charged by charging and power control circuit 52 from, for example, energy extracted from an alternating magnetic field provided by an external source** (not shown).” Pet. 53 (quoting, with emphasis added, Ex. 1018 ¶ 11). According to Petitioner, the last emphasized passage “specifically refers to inductive charging that is selectively enabled by coupling of the magnetic fields between two coils, and requires that the power coil be in proximity to the external source, so that it can receive sufficient power from the external source’s coil that generates the alternating magnetic field.” *Id.* at 55–56 (citing Najafi Decl. ¶¶ 170–173; *Atlas Powder*, 190 F.3d at 1347).

Petitioner also identifies receiving inductor 140 in Saaski as a “power coil” and highlights disclosures regarding the inductive charger in that reference. *See* Pet. 53–55 (citing Ex. 1021, 4:2–22, 14:46–15:17, 15:37–43). According to Petitioner, Saaski “describes inductive charging of the battery, and refers to inductor 140 in inductive receiving circuit 138,” which “is in the hearing aid.” *Id.* at 56 (citing Najafi Decl. ¶¶ 170–173).

Patent Owner states that the relied-upon portions of Zilberman and Saaski “at most describe the use of some form of inductive charging in a hearing aid” but “[t]hey do *not* discuss or suggest a power coil that

‘selectively’ receives power.” Prelim. Resp. 50. According to Patent Owner, “Petitioner wrongly assumes that any inductive charging uses a power coil that ‘selectively’ receives power, effectively reading this limitation out of the claims and rendering it superfluous.” *Id.* Patent Owner challenges Petitioner’s reliance on inherency (via *Atlas Powder*) stating that, “contrary to Petitioner’s suggestion, inductive charging does not necessarily require a power coil that ‘selectively’ receives power.” *Id.* at 50–51.<sup>20</sup>

At this stage of the proceeding, Patent Owner’s argument does not identify a deficiency in Petitioner’s position as to the “selectively receives” limitation. We first address the meaning of “selectively” in the claim language at issue. On this issue, Patent Owner states that the ’746 patent provides an example in which the external sound processor “includes a sensor, such as a magnetic reed switch, that is activated to sense when the processor is in the proximity of a corresponding magnet in a base station before the power coil in the processor can receive power.” Prelim. Resp. 50 (citing Ex. 1001, 6:62–7:6). Although Patent Owner does not expressly construe “selectively,” Patent Owner implicitly asserts that the “selectively receives” limitation *at least includes* power being received based on whether the “power coil” and “external charging source” are sufficiently proximate each other.

At this stage of the proceeding, we agree with this understanding of “selectively.” *See, e.g.*, Ex. 1001, 6:65–7:1 (“The circuits 52 in the sound processor 50 direct such received power to the power source 60 when the

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<sup>20</sup> Patent Owner incorporates by reference the arguments at pages 33–35 of the Preliminary Response (for the ground of AAPA and Petersen), but then provides essentially the same arguments in the context of this ground.

sound processor 50 is placed in close proximity to the base station.”). To the extent argued, however, the claims do not support requiring a *separate component* (such as the disclosed magnetic reed switch) to detect proximity, as in the disclosed embodiment. *See Laitram Corp. v. NEC Corp.*, 163 F.3d 1342, 1347 (Fed. Cir. 1998) (stating that “it is the *claims*, not the written description, which define the scope of the patent right”). At this stage of the proceeding, we determine that the “selectively receives” limitation requires (1) power being received when the “power coil” and “external charging source” are separated by a certain distance or less and (2) power not being received when those components are separated by a greater distance.

With this understanding of the limitation at issue, we are sufficiently persuaded, on the current record, by Petitioner’s argument and evidence (including the testimony of Dr. Najafi) on this issue. As an initial matter, we agree with Patent Owner’s view that Petitioner relies, at least in part, on inherency as to this issue. *See* Pet. 55–56 (citing *Atlas Powder*, 190 F.3d at 1347). Specifically, we understand Petitioner to take the position that, although the references do not expressly discuss the “proximity” of the relied-upon components, *all* inductive charging systems are “*selectively enabled* by coupling of the magnetic fields between two coils, and *require[] that the power coil be in proximity to the external source*, so that it can receive sufficient power from the external source’s coil that generates the alternating magnetic field.” Pet. 55–56 (emphasis added) (citing Najafi Decl. ¶¶ 170–173; *Atlas Powder*, 190 F.3d at 1347). This position is supported by the relied-upon testimony of Dr. Najafi, who explains that (1) “magnetic coupling between two coils in proximity of each other causes a voltage/current to be ‘induced’ in the power coil . . . when the external

source transmitter coil generates an ‘alternating magnetic field’” and that (2) “[t]he closer the receiver and transmitter coils get to each other, the stronger the magnetic interaction becomes, and the more power can be received by the receiver coil.” Najafi Decl. ¶ 171, *cited at* Pet. 55–56. Patent Owner does not address this testimony at this stage of the proceeding, and does not provide contrary testimonial evidence on this issue. For these reasons, at this stage of the proceeding and on the current record, we determine that Petitioner has made a sufficient showing that Zilberman, or in the alternative, Saaski, discloses the “selectively receives” limitation.

*(3) The Combination of Zilberman and Saaski*

As to the combination of Zilberman and Saaski, Petitioner takes the position that Zilberman discloses limitation 10.6, but states that “if this disclosure [in Zilberman] was not explicit enough, [one of ordinary skill in the art] would look to Saaski for further guidance on the details of implementing inductive charging, since Saaski also describes inductive charging of an external hearing prosthesis.” Pet. 69. According to Petitioner, one of ordinary skill in the art “would expect that the components and mechanism of inductive charging, as described in Saaski, could be successfully implemented in the system of Zilberman, since both are in the field of hearing aid prosthesis devices and describe the use of inductive charging for such devices – Saaski merely provides more details.” *Id.* (citing Najafi Decl. ¶¶ 220–221).

Patent Owner argues that Petitioner has failed to demonstrate that one of ordinary skill in the art would have combined Zilberman and Saaski or had a reasonable expectation of success. *See* Prelim. Resp. 51–55. According to Patent Owner, “Petitioner’s alleged motivation to combine



fails to explain why [one of ordinary skill in the art] would have looked to or applied Saaski’s teaching regarding an *external* hearing aid to implement the battery and charging features of Zilberman’s *implantable* microphone module.” *Id.* at 52. Patent Owner also argues that, “[t]o the extent Zilberman discloses an alternative embodiment of an external microphone module, Zilberman does not disclose that the battery of this embodiment is hermetically sealed with the other components or otherwise permanently and integrally housed in a closed case.” *Id.* at 52–53. Thus, according to Patent Owner, Petitioner “fails to explain why [one of ordinary skill in the art] would have been motivated to implement features unrelated to the charging apparatus such as a battery that is permanently and integrally housed in a closed case.” *Id.* at 53.

At this stage of the proceeding, this argument does not identify a deficiency in Petitioner’s reasons to combine. Instead, most of Patent Owner’s arguments simply reframe arguments previously discussed. *See supra* §§ II.F.3.a.1–2. And the statement addressing the motivation does not address the proposed combination in that Petitioner does not appear to rely on Saaski for limitation 10.5, except in the alternative. *See* Pet. 51–53. For these reasons, at this stage of the proceeding and on the current record, Petitioner has made a sufficient showing that a person of ordinary skill in the art would have had reason to combine Zilberman and Saaski as proposed and that the articulated reasoning is supported by rational underpinning.

Patent Owner does not offer any arguments specifically addressing the remaining limitations of claim 10. *See* Prelim. Resp. 45–55. We have reviewed Petitioner’s contentions with respect to the remaining limitations of claim 10, and determine that the Petition provides a sufficient showing, at

this stage of the proceeding, that the combination of Zilberman and Saaski satisfies each limitation. *See* Pet. 48–59, 69–70. For the reasons above, we determine, based on the current record, that the Petition shows a reasonable likelihood that Petitioner would prevail in demonstrating that claim 10 would have been obvious based on Zilberman and Saaski.

*b. Claims 11–17*

We have reviewed Petitioner’s contentions with respect to claims 11–17, which depend from claim 10, and we determine that the Petition provides a sufficient showing, at this stage of the proceeding, that the combination of Zilberman and Saaski discloses the subject matter of these claims. *See* Pet. 60–67. Patent Owner does not present any arguments specifically addressing claims 11–17. *See* Prelim. Resp. 45–55. We determine, based on the current record, that the Petition shows a reasonable likelihood that Petitioner would prevail with respect to the contention that claims 11–17 would have been obvious based on Zilberman and Saaski.

*c. Independent Claim 24*

For limitations 24.1–24.6 of independent claim 24, Petitioner references the positions with respect to limitations 10.1, 10.2, 14.3, 10.4, 10.5, and 10.7. *See* Pet. 67. For limitation 24.7, Petitioner relies on aspects of Saaski. *See* Pet. 68–69 (citing Najafi Decl. ¶¶ 218–219). Petitioner relies on the same reasons to combine Zilberman and Saaski as discussed above. Pet. 69–70. As to claim 24, Petitioner adds that

the need for daily battery-recharging would have motivated [one of ordinary skill in the art] to make the process of replenishing power for the sound processor simple and user-friendly . . . and to that end, would have combined the charging station described in Saaski with the system of Zilberman to arrive at the invention of claim 24 – and would have expected that combination to work.

Pet. 70 (citing Najafi Decl. ¶ 222; *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007)). According to Petitioner, “[t]he combination of Zilberman with the charging station of Saaski was . . . nothing more than the combination of known elements according to known methods to yield predictable results.” *Id.* (citing Najafi Decl. ¶ 223; *KSR*, 550 U.S. at 416).

For claim 24, Patent Owner relies on many of the same arguments addressing claim 10, discussed above. *See* Prelim. Resp. 45–55. For the same reasons discussed above, at this stage of the proceeding, we are not persuaded by those arguments. As to claim 24, Patent Owner adds that “Petitioner does not explain why [one of ordinary skill in the art] would have sought to modify, or had any reasonable expectation of success in modifying, Zilberman’s cochlear implant device based on features of Saaski’s *hearing aid*.” *Id.* at 53. According to Patent Owner, one of ordinary skill in the art would have viewed hearing aids and cochlear implants as “fundamentally different, both structurally and functionally, and would not have sought to make the proposed combination.” *Id.* at 53–54 (citing Prelim. Resp. 35–45). We are not persuaded by this additional argument, however, because the current record does not support Patent Owner’s position on this issue. *See supra* § II.E.3.b (fourth argument). We determine, based on the current record, that the Petition shows a reasonable likelihood that Petitioners would prevail with respect to the contention that claim 24 would have been obvious based on Zilberman and Saaski.

*G. Asserted Obviousness of Claims 10–17 and 24 Based on AAPA, Zilberman, and Saaski*

Petitioner asserts that claims 10–17 and 24 of the ’746 patent are unpatentable under 35 U.S.C. § 103(a) based on AAPA, Zilberman, and

Saaski. Pet. 4, 71–74. Patent Owner provides arguments specifically addressing this ground. Prelim. Resp. 55–57; Prelim. Sur-reply 1–4.

*1. Asserted References*

In this asserted ground, Petitioner relies on AAPA (summarized above (*see supra* § II.E.1)), Zilberman (summarized above (*see supra* § II.F.1)), and Saaski (summarized above (*see supra* § II.F.2)).

*2. Analysis*

Patent Owner asserts, among other arguments, that, for this ground, Petitioner “fails to meet its burden of ‘identif[ying], in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim,’” as required by 35 U.S.C. § 312(a)(3). Prelim. Resp. 56–57. According to Patent Owner, in the context of this ground, “it is unclear exactly which portions of which reference(s) in the AAPA and which portions of Zilberman and Saaski that Petitioner seeks to combine.” *Id.* at 57. For the reasons below, we agree.

In an *inter partes* review, “the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3)); *see also Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016) (“It is of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial petition identify ‘with particularity’ the ‘evidence that supports the grounds for the challenge to each claim.’” (quoting 35 U.S.C. § 312(a)(3))).

We reproduce here the entire discussion of the subject matter of claims 10–17 and 24 (as opposed to the motivation to combine) in the context of this ground:

As explained in Section IX.A, the AAPA discloses limitations 10.1, 10.2, 10.4, and 10.7 of independent claim 10, the additional limitations of dependent claims 11-13 and 15-17, and limitations 24.1, 24.2, 24.4., and 24.6 of claim 24. As explained in Section IX.B, Zilberman discloses, or at least renders obvious (10.7, 17.2), all of the limitations of claims 10-17, and limitations 24.1-24.6; and Saaski discloses limitations 10.2-10.7, 14.2-14.3, 16.2, and 24.2-24.7. *See* Ex. 1002, ¶¶ 226-254.

Pet. 71. As argued by Patent Owner, Petitioner has not satisfied the statutory requirement. For example, by listing *all three references* as allegedly disclosing various limitations (e.g., limitation 10.7), it is unclear which *particular* reference—or perhaps combination of references—Petitioner relies on for *each* limitation. *Id.*; Prelim. Resp. 56 (arguing that “Petitioner’s entire analysis of what it proposes to combine is limited to a single paragraph . . . that just includes a string of cross-references to earlier sections of the Petition, with no substantive explanation”); *see also* *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2154 (2016) (Alito, J. concurring in part and dissenting in part) (“Section 312(a)(3)’s particularity requirement is designed, at least in part, to ensure that a patent owner has sufficient notice of the challenge against which it must defend.”).

For these reasons, we determine that, for this asserted ground, Petitioner does not satisfy the “particularity” requirement of § 312(a)(3). Nevertheless, because the Petition shows a reasonable likelihood that Petitioner would prevail with respect to at least one of the challenged claims based on at least one of the asserted grounds, we include this asserted

ground in the instituted *inter partes* review. *See SAS*, 138 S. Ct. at 1354, 1359–60.

### III. CONCLUSION

For the reasons above, we determine that the Petition shows a reasonable likelihood that Petitioner would prevail with respect to at least one of challenged claims 1–24 of the ’746 patent.

At this stage of the proceeding, no final determination has yet been made with regard to the patentability of any of the challenged claims or any underlying factual or legal issues, including the construction of claim terms. The final determination will be based on the record as developed during the *inter partes* review.<sup>21</sup>

### IV. ORDER

Accordingly, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is hereby instituted as to claims 1–24 of the ’746 patent on all asserted grounds and

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

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<sup>21</sup> As highlighted in the accompanying Scheduling Order, “Patent Owner is cautioned that any arguments not raised in the response may be deemed waived.” Paper 14, at 8 (emphasis omitted); *see also In re Nuvasive, Inc.*, 842 F.3d 1376, 1379–82 (Fed. Cir. 2016) (holding that a patent owner waived an argument addressed in a preliminary response by not raising the same argument in the patent owner response).

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