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Paper 14
Date: June 16, 2025

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

RØDE MICROPHONES, LLC, and
FREEDMAN ELECTRONICS PTY LTD.,
Petitioner,

v.

ZAXCOM, INC.,
Patent Owner.

IPR2025-00232
Patent 10,276,207 B1

Before JUSTIN T. ARBES, MIRIAM L. QUINN, and MATTHEW J. McNEILL, *Administrative Patent Judges.*

PER CURIAM.

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

I. INTRODUCTION

A. Background and Summary

RØDE Microphones, LLC, and Freedman Electronics Pty Ltd. (collectively, "Petitioner") filed a Petition (Paper 1, "Pet.") requesting *inter partes* review of claims 17–19, 21–23, 33, 34, 59, 60, and 66 of U.S. Patent No. 10,276,207 B1 (Ex. 1001, "the '207 patent") pursuant to 35 U.S.C.

§ 311(a). Patent Owner Zaxcom, Inc., filed a Preliminary Response (Paper 8, "Prelim. Resp.") pursuant to 35 U.S.C. § 313. Also, pursuant to our authorization (Paper 9), Petitioner filed a Preliminary Reply (Paper 10, "Prelim. Reply") and Patent Owner filed a Preliminary Sur-Reply (Paper 11, "Prelim. Sur-Reply").

Pursuant to 35 U.S.C. § 314(a), the Director may not authorize an *inter partes* review unless the information in the petition and preliminary response "shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." *See* 37 C.F.R. § 42.4(a) ("The Board institutes the trial on behalf of the Director."). For the reasons that follow, we institute an *inter partes* review as to claims 17–19, 21–23, 33, 34, 59, 60, and 66 of the '207 patent on all grounds of unpatentability asserted in the Petition.

B. Related Matters

The parties indicate that the '207 patent is the subject of *Zaxcom, Inc. v. RØDE Microphones, LLC*, No. 23-cv-01245 (D. Del.) ("the district court case"). *See* Paper 12, 1; Paper 6, 2. Petitioner filed petitions challenging other patents related to the '207 patent and asserted in the district court case: U.S. Patent No. 7,711,443 B1 (IPR2025-00230), U.S. Patent No. 7,929,902 B1 (Ex. 1030, "the '902 patent") (IPR2025-00231), and U.S. Patent No. 12,051,444 B2 (IPR2025-00557).

Three patents related to the '207 patent previously were challenged by a different petitioner, Lectrosonics, Inc. In IPR2018-00972, the Board found challenged claims 1–14 of U.S. Patent No. 9,336,307 B2 (Ex. 1015, "the '307 patent") unpatentable and granted Patent Owner's motion to amend

seeking to add proposed substitute claims 15–28. Ex. 1014.

In IPR2018-01129, the Board found challenged claims 7, 8, 11, 12, 14, and 15 of the '902 patent unpatentable and granted Patent Owner's motion to amend seeking to add proposed substitute claims 21–26. Ex. 1017.

In IPR2018-01130, the Board found challenged claims 1–4, 9, 10, 12, 15, 31, 36, 37, and 41–45 of U.S. Patent No. 8,385,814 B2 (Ex. 1028, "the '814 patent") unpatentable and granted Patent Owner's motion to amend seeking to add proposed substitute claims 50–65. Ex. 1018. The Board's final written decisions were entered after the '207 patent issued on April 30, 2019. The Board's final written decisions were affirmed, and the Office issued *inter partes* review certificates cancelling the challenged claims and adding the substitute claims. *See* Pet. 12; Exs. 1015, 1028, 1030; *Zaxcom, Inc. v. Lectrosonics, Inc.*, No. 2020-1350, 2022 WL 499843 (Fed. Cir. Feb. 18, 2022); *Zaxcom, Inc. v. Lectrosonics, Inc.*, No. 2020-1921, 2022 WL 499848 (Fed. Cir. Feb. 18, 2022). We refer to the earlier proceedings as "the Lectrosonics IPRs."

C. The '207 Patent

The '207 patent discloses "systems and methods for recording and processing audio having one or more tracks received from one or more wireless devices operating in either an asynchronous or synchronous mode." Ex. 1001, col. 1, ll. 47–51.

Figure 1 of the '207 patent is reproduced below.

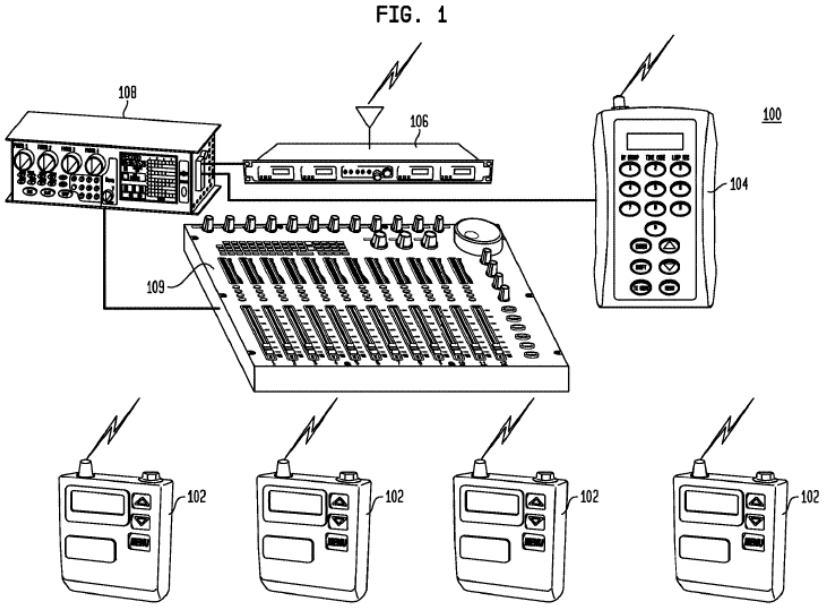

Figure 1 depicts recording system 100, which "wirelessly records audio events, such as performances, movie takes, etc. having one or more performers." Ex. 1001, col. 4, ll. 1–3. "[R]ecording system 100 includes local audio devices 102, remote control unit ('RCU') 104, receiver 106, and recorder 108." *Id.* at col. 4, ll. 27–30. Local audio devices 102 record live audio and store the audio in memory using timestamps that are synchronized with the timestamps of recorder 108. *Id.* at col. 4, l. 52–col. 5, l. 10. Local audio devices 102 may transmit both live and replayed audio to receiver 106 to be recorded by audio recorder 108. *Id.* at col. 4, ll. 40–42. "RCU 104 includes an RF transmitter capable of transmitting one or more of a time reference signal, digital commands, and audio to one or more other components of recording system 100." *Id.* at col. 4, ll. 30–33. RCU 104 may remotely control local audio devices 102, receiver 106, and recorder 108 for "initiating audio playback of all local audio devices 102 starting at the same time reference, as well as recording thereof by receiver 106 and recorder 108." *Id.* at col. 4, ll. 33–39.

D. Illustrative Claim

Challenged claims 17 and 59 of the '207 patent are independent. Claims 18, 19, 21–23, 33, and 34 depend from claim 17, and claims 60 and 66 depend from claim 59. Claim 17 recites the following (with letter designations used in the Petition to refer to the various limitations):

> 17. [Pre] At least one audio device wearable by a user for storing locally generated audio and transmitting the locally generated audio to a remote device, the remote device including at least one of a receiver, a recorder, a mixer, and combination thereof, the at least one audio device comprising:
>
> [A] a wireless transmitter,
>
> [B] an audio input port configured to couple to an audio input device to receive the locally generated audio;
>
> [C] a memory;
>
> [D] a local timecode generator operable to generate a local timecode;
>
> [E] a control unit coupled to the wireless transmitter, the audio input port, the memory, and the local timecode generator, [F] the control unit operable to: (i) receive a master timecode from a master timecode generator and jam synchronize the local timecode generator to the master timecode generator using the master timecode, [G] (ii) transmit the locally generated audio to the remote device via the wireless transmitter; and [H] (iii) store the locally generated audio in the memory as audio data; and [I] (iv) stamp at least a portion of the audio data with the local timecode

E. Evidence

Petitioner relies on the following prior art:

U.S. Patent No. 5,479,351, issued Dec. 26, 1995 (Ex. 1004, "Woo");

U.S. Patent No. 6,825,875 B1, issued Nov. 30, 2004 (Ex. 1003, "Strub");

U.S. Patent Application Publication No. 2002/0159179 A1, published Oct. 31, 2002 (Ex. 1005, "Nagai"); and

U.S. Patent Application Publication No. 2004/0028241 A1, published Feb. 12, 2004 (Ex. 1006, "Gleissner").

F. Prior Art and Asserted Ground

Petitioner asserts that claims 17–19, 21–23, 33, 34, 59, 60, and 66 of the '207 patent would have been obvious on the basis of prior art printed publications under 35 U.S.C. § 103(a):[1]

Claims Challenged	35 U.S.C. §	References/Basis
17–19, 21–23, 33, 34, 59, 60, 66	103(a)	Strub, Woo, Nagai, Gleissner

II. ANALYSIS

A. Discretionary Denial Under 35 U.S.C. § 314(a)

Institution of *inter partes* review is discretionary. *See Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) ("[T]he PTO is permitted, but never compelled, to institute an [*inter partes* review (IPR)] proceeding."); 35 U.S.C. § 314(a) ("The Director *may not* authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood

[1] The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) ("AIA"), amended 35 U.S.C. § 103. The '207 patent claims priority to an application filed before the effective date of the applicable AIA amendment, and Petitioner refers to the pre-AIA version of 35 U.S.C. § 102; therefore, we refer to the pre-AIA version of 35 U.S.C. § 103. *See* Pet. 14, 16, 19, 22; Ex. 1001, codes (22), (63).

that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." (emphasis added)). Patent Owner argues that we should exercise our discretion to deny the Petition in view of the district court case. Prelim. Resp. 9–20. Petitioner disagrees. Pet. 76–79.

The Board has held that the advanced state of a parallel district court action is a factor that may weigh in favor of denying a petition under § 314(a). *See NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 20 (PTAB Sept. 12, 2018) (precedential); Patent Trial and Appeal Board Consolidated Trial Practice Guide (Nov. 2019), 58 & n.2, *available at* https://www.uspto.gov/TrialPracticeGuideConsolidated. We consider the following factors to assess "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":

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.

Apple Inc. v. Fintiv, Inc., IPR2020-00019, Paper 11 at 5–6 (PTAB Mar. 20, 2020) (precedential). In evaluating these factors, we take "a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review." *Id.* at 6.

1. Whether the Court Granted a Stay or Evidence Exists That One May Be Granted if a Proceeding is Instituted

Patent Owner contends that a stay has not been requested in the district court case and, if requested, would "likely" be denied. Prelim. Resp. 11–16. Petitioner contends that it "intends to seek a stay" of the district court case, but without specific evidence of how the district court will rule, this factor is neutral. *See* Pet. 77 (citing *Sand Revolution II, LLC v. Continental Intermodal Group-Trucking LLC*, IPR2019-01393, Paper 24 at 7 (PTAB June 16, 2020) (informative)).

We decline to speculate whether the district court will grant a stay. *See Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 12 (PTAB May 13, 2020) (informative). Thus, we find that factor 1 is neutral.

2. Proximity of the Court's Trial Date to the Board's Projected Statutory Deadline for a Final Written Decision

Patent Owner argues that although a trial date has not been set in the district court case, it is reasonable to assume that the trial will occur "during 2026." Prelim. Resp. 16–17. Patent Owner argues that the statutory deadline for the final written decision in the last of the related proceedings (IPR2025-00557) is one year from the date of potential institution thereof, which would be no earlier than September 18, 2026. *Id.*

Petitioner argues that this factor weighs against exercising our discretion because "the final summary judgment and Daubert briefs [in the district court case] are not due until April 10, 2026," so "it is extremely unlikely that trial will start in or before June 2026." Pet. 77.

Patent Owner focuses on the statutory deadline for the final written decision in IPR2025-00557 (if instituted), but the statutory deadline for the

final written decision in this proceeding would be in June 2026. There is no trial date set in the district court case. *See* Ex. 1031, 3. Therefore, we find that factor 2 weighs against exercising discretion to deny institution.

3. Investment in the Parallel Proceeding by the Court and the Parties

Patent Owner argues that the parties have expended significant time and resources in the district court case, including substantially completing document production on February 5, 2025. Prelim. Resp. 12–13, 17. Patent Owner argues that claim construction briefing is set to be completed on June 20, 2025, fact discovery closes on August 15, 2025, expert discovery closes on January 23, 2026, and summary judgment and Daubert briefing is scheduled to conclude by April 10, 2026. *Id.* at 12–13. Patent Owner argues that the significant time and resources expended in the district court case were necessitated by Petitioner's delay in filing its petitions in this proceeding and the related proceedings "until the eve of the statutory deadlines, despite knowledge of [Patent Owner's] claims for over 44 months prior thereto." *Id.* at 17. Patent Owner argues that institution in this proceeding would result in expensive duplication of effort. *Id.*

Petitioner argues that this factor weighs against exercising discretion because fact discovery does not end until August 2025, claim construction and expert discovery have not yet begun, a trial date has not been set, and no substantive orders have been issued related to the challenged patent. Pet. 78.

We agree with Petitioner that much work remains in the district court case as it relates to validity because discovery is in its early stages, claim construction briefing is not yet complete, and a *Markman* hearing has not yet occurred. *See* Ex. 1031, 3. Petitioner filed the Petition approximately

fourteen months after Patent Owner filed its original complaint in the district court case, but less than one month after Patent Owner filed its amended complaint. *See* Pet. ix; Prelim. Resp. 2; Exs. 2001, 2002. Although the filing of the Petition does not seem diligent, the timing overall does not outweigh the limited investment in the district court case. Given that limited investment, we determine that this factor weighs slightly against exercising discretion to deny institution.

4. Overlap Between Issues Raised in the Petition and in the Parallel Proceeding

Patent Owner contends that there is "100% overlap between the issues in the Petition and the [district court case], which both rely on identical prior art references and arguments." Prelim. Resp. 17–18.

Petitioner argues that although all of the challenged claims are currently being asserted in the district court case, the district court recently issued a revised scheduling order which requires Patent Owner to reduce its asserted claims before the *Markman* hearing and after the *Markman* ruling. Pet. 78. Petitioner argues that in light of this reduction, and the overall number of asserted claims, it is likely that many of the challenged claims will not be asserted in the district court case. *Id.* at 78–79. Patent Owner disagrees with this assertion, arguing that it is "pure speculation" because the district court has continued to refuse to force Patent Owner to narrow the number of asserted claims. Prelim. Resp. 18 (citing Ex. 2012).

We decline to speculate whether the claims asserted in the district court case will be narrowed sufficiently that the overlap between the challenged claims and the asserted claims substantially changes. We find that this factor weighs in favor of exercising discretion to deny institution.

5. Whether the Petitioner and the Defendant in the Parallel Proceeding Are the Same Party

Patent Owner contends that the parties to this proceeding are the same parties in the district court case. Prelim. Resp. 18. Petitioner agrees, and argues that this factor may depend on which tribunal is likely to address the challenged patent first, which Petitioner contends is the Board. Pet. 79. Because the parties in this proceeding and the district court case are the same, we find that this factor weighs in favor of exercising discretion to deny institution.

6. Other Circumstances that Impact the Board's Exercise of Discretion, Including the Merits

Petitioner argues that the "strong showing on the merits" in the Petition weighs against exercising discretion to deny institution, citing the previous USPTO Memorandum, Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation (June 21, 2022), *available at* https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf. Pet. 76, 79.

Patent Owner argues that the Office's revocation of the Memorandum,[2] which "eliminates 'compelling evidence of patentability' as a criterion for refusing to deny institution, moots [Petitioner's] argument." Prelim. Resp. 19. Patent Owner argues that the merits in this proceeding are

[2] *See* USPTO Memorandum, Guidance on USPTO's Recission of "Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation" (March 24, 2025), *available at* https://www.uspto.gov/sites/default/files/documents/guidance_memo_on_interim_procedure_recission_20250324.pdf.

"not a close call" and other factors favoring denial are present, including the district court case that "has 100% overlap with the issues in this Petition" and "also includes 3 additional patents and 66 additional claims." *Id.*

As explained below, many of the issues raised in this proceeding are similar to those in the Lectrosonics IPRs. *See infra* Section II.B. For example, similar claims were found unpatentable over Strub, Woo, and Nagai or Gleissner in IPR2018-01129 and IPR2018-01130, and claims with some similar limitations were found to be anticipated by Strub in IPR2018-00972. In each of these cases, many of the same issues were decided, albeit under a different claim construction standard.

In view of the totality of the circumstances, this factor weighs against exercising discretionary denial.

7. Conclusion

Having considered the factors above, including the timing of the proceedings, the amount of overlap and additional patents and claims in the district court case, the amount of effort that has been and is yet to be expended in the district court case, and the merits of Petitioner's challenge, we find that, taken as a whole, the factors do not favor exercising discretion to deny institution. Although the overlapping parties and issues with the district court case weigh in favor of discretionary denial, the lack of any trial date, limited investment in the district court case, and similarity to claims previously held unpatentable by this tribunal weigh against exercising our discretion, and the remaining factor regarding a potential stay is neutral. Accordingly, we decline to exercise discretion to deny institution under § 314(a).

B. Presentation of the Same or Substantially the Same Prior Art or Arguments Under 35 U.S.C. § 325(d)

Pursuant to 35 U.S.C. § 325(d), 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 evaluates two issues in addressing 35 U.S.C. § 325(d):

> (1) 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, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential) ("*Advanced Bionics*"). With respect to the first issue, previously "presented" art includes, among other things, "art provided to the Office by an applicant, such as on an Information Disclosure Statement (IDS), in the prosecution history of the challenged patent." *Id.* at 7–8. With respect to the second issue, institution generally will be denied if a "petitioner fails to make a showing of material error," and "[i]f reasonable minds can disagree regarding the purported treatment of the art or arguments, it cannot be said that the Office erred in a manner material to patentability." *Id.* at 8–9. "[T]his framework reflects a commitment to defer to previous Office evaluations of the evidence of record unless material error is shown." *Id.* at 9.

The six non-exclusive factors set forth in *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15,

2017) (precedential as to § III.C.5, first paragraph) ("*Becton, Dickinson*"), "provide useful insight into how to apply the framework." *Advanced Bionics*, Paper 6 at 9. Those factors are

> (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, Paper 8 at 17–18. "If, after review of factors (a), (b), and (d), it is determined 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 has demonstrated a material error by the Office." *Advanced Bionics*, Paper 6 at 10. Upon consideration of these factors, we decline to deny institution under § 325(d).

We conclude that the first part of the *Advanced Bionics* framework is satisfied. Petitioner acknowledges that all four asserted references (Strub, Woo, Nagai, and Gleissner) "were before the Examiner during prosecution" of the '207 patent. Pet. 74. On February 21, 2019, the applicant filed a petition to withdraw the application from issue after payment of the issue fee under 37 C.F.R. § 1.313(c), along with a Request for Continued Examination and an IDS listing the four references as well as the petitions,

preliminary responses, decisions on institution,[3] and various exhibits filed in the Lectrosonics IPRs. *See* Prelim. Resp. 21; Ex. 2027, 10–16. The examiner subsequently signed the IDS with the footnote "ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH." Ex. 2028, 6–12. Further, the petitioner in IPR2018-01130, for example, asserted that the challenged claims were unpatentable over various combinations of Strub, Woo, Nagai, and Gleissner, and the petition, preliminary response, and decision on institution from that proceeding were provided to the examiner. *See* Ex. 1018, 5–6 (listing the asserted grounds); Ex. 1021, 7–8 (same); Ex. 2027, 14–15. Accordingly, the same art previously was presented to the Office.

Turning to the second part of the *Advanced Bionics* framework, Petitioner provides an analysis of the second part in the Petition. *See* Pet. 75–76; *Ecto World, LLC v. RAI Strategic Holdings, Inc.*, IPR2024-01280, Paper 13 at 5 (Stewart May 19, 2025) (Director Review) (precedential as to § A) ("*Ecto World*") ("a petitioner must provide an analysis even when the asserted prior art is on an IDS, but the Examiner did not apply the reference," and "must explain, with reference to *Becton Dickinson* factors (c), (e), and (f), how the Examiner erred in overlooking the prior art"). We conclude that, based on the particular factual

[3] Patent Owner incorrectly states that the Board's "FWDs" (final written decisions) in the Lectrosonics IPRs were provided to the examiner. *See* Prelim. Resp. 21. We assume this to be a typographical error meant to refer to the decisions on institution, as the final written decisions in the Lectrosonics IPRs were entered on November 7, 2019, and January 24, 2020—after the '207 patent issued on April 30, 2019. *See* Ex. 1001, code (45); Exs. 1014, 1017, 1018.

circumstances of this proceeding, Petitioner has made a sufficient showing of material error under the second part of the *Advanced Bionics* framework.

With respect to *Becton, Dickinson* factor (c)—"the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection"—the examiner issued a Notice of Allowance after the applicant filed the IDS, but did not include any reasons for allowance in the Notice. Ex. 2028. Petitioner correctly points out that the four asserted references were not the basis for any rejection and were not discussed substantively by the examiner. *See* Pet. 16, 19, 22, 23, 75. Accordingly, factor (c) does not favor denial.

With respect to *Becton, Dickinson* factors (e) and (f)—"whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art" and "the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments"—Petitioner argues that "Strub, Woo, Nagai, and Gleissner were considered by the [Board] in the Lectrosonics IPRs" and, in the final written decisions in those proceedings (entered after issuance of the '207 patent), "the Board found claims similar to the present [c]hallenged [c]laims unpatentable over those references."[4] Pet. 75. Petitioner further points out that the substitute claims added in Patent Owner's motions to amend in the Lectrosonics IPRs included a limitation of "replacing" audio data with local audio data that is not present in the challenged claims of the

[4] Petitioner asserts that Patent Owner is collaterally estopped from disputing certain issues that were decided in the Lectrosonics IPRs. Pet. 8–14. As explained below, we are not persuaded on this record that collateral estoppel applies, but determine that Petitioner has met the reasonable likelihood standard for institution regardless. *See infra* Section II.F.5.

'207 patent. *Id.* at 75–76. Thus, Petitioner's position is that the examiner erred in evaluating the four asserted references because the Board later found claims very similar to the challenged claims to be unpatentable based on those references and the Office cancelled the claims. *Id.*; *see Ecto World*, Paper 13 at 5–6 ("[Under the second part of the *Advanced Bionics* framework, a] petitioner . . . may point to the fact that even though the asserted prior art is listed on an IDS, the Examiner did not issue any prior art rejections during examination, so the Examiner materially erred by overlooking certain teachings in the prior art on the IDS."). In response, Patent Owner disputes Petitioner's "attempt to discount" the examiner's consideration of the references as reflected in the signed IDS and contends that Petitioner does not assert that the Office erred with respect to the challenged claims (as opposed to the claims involved in the Lectrosonics IPRs, which are only alleged to be "similar"). Prelim. Resp. 22.

Petitioner's explanation as to how the challenged claims of the '207 patent are similar to claims found unpatentable in the Lectrosonics IPRs is persuasive on this record. For example, Petitioner compares claim 17 of the '207 patent to claim 37 of the '814 patent, which was found unpatentable over Strub, Woo, and Nagai or Gleissner in IPR2018-01130:

> 1. A system for recording locally generated audio comprising:
>
> at least one master timecode generator for generating a plurality of master timecodes; and
>
> at least one local audio device wearable by a creator of said locally generated audio including:
>
> at least one local audio device receiver for receiving at least one of the group consisting of digital commands, said master timecodes, and non-local audio data;

> at least one audio input port for receiving said locally generated audio from an audio input device;
>
> at least one memory;
>
> at least one local timecode generator for generating a plurality of local timecodes; and
>
> at least one control unit electrically coupled to said local audio device receiver, said audio input device, said memory, and said local timecode generator for creating stamped local audio data from said locally generated audio and storing said stamped local audio data in said memory;
>
> wherein said stamped local audio data includes at least one local timestamp to reference at least a portion of said stamped local audio data to at least one of said local timecodes.
>
> 37. A system according to claim 1, wherein said local timecode generator is jam synchronized with at least one of said master timecodes received via said local audio device receiver to maintain synchronization of said local timecodes with said master timecodes.

Ex. 1028, col. 23, ll. 18–41, col. 27, ll. 55–59; *see* Pet. 30; Ex. 1018, 32, 63–64.

Claim 17 of the '207 patent and claim 37 of the '814 patent both recite, for instance, (1) a "wearable" audio device for recording/storing "locally generated audio"; (2) a "master timecode generator" that generates and provides a "master timecode" to the audio device; (3) an "audio input port" for receiving the "locally generated audio"; (4) a "memory"; (5) a "local timecode generator" that generates a "local timecode"; (6) a "control unit" that stamps and stores audio data in the "memory"; and (7) jam synchronizing the "local timecode generator" to a "master timecode" of the "master timecode generator." *See* Pet. 11–12, 30–31, 40–41, 46, 48, 49, 51, 54–55.

Petitioner also compares claim 17 of the '207 patent to (1) claims 12–14 of the '307 patent, which similarly recite wirelessly transmitting the "locally generated audio" and were found to be anticipated by Strub in IPR2018-00972; (2) claim 1 of the '307 patent, which was found unpatentable over Strub and Nagai or Gleissner in IPR2018-00972; and (3) claims 7, 8, and 11 of the '902 patent, which were found unpatentable over Strub, Woo, and Nagai or Gleissner in IPR2018-01129. *See* Pet. 10–12, 30, 37, 53; Ex. 1014, 25–26, 64–65; Ex. 1015, col. 23, ll. 22–42, col. 24, ll. 15–56; Ex. 1017, 35, 73; Ex. 1030, col. 24, l. 51–col. 25, l. 35, col. 25, ll. 61–65.

Although the challenged claims of the '207 patent are worded differently from the claims previously found unpatentable in some respects, as Patent Owner points out, *see* Prelim. Resp. 33–35, we are persuaded on this record that they are sufficiently similar to warrant reconsideration. Further, at the time the IDS with the asserted references and documents from the Lectrosonics IPRs was filed, the Board's final written decisions in those proceedings and the Federal Circuit's decisions affirming the Board were not available to the examiner to consider, as those decisions had not yet issued. *See* Exs. 1014, 1017, 1018; *Zaxcom*, 2022 WL 499843; *Zaxcom*, 2022 WL 499848. Based on these unique facts, we determine that factors (e) and (f) do not favor denial.

Petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims under the second part of the *Advanced Bionics* framework. After considering the *Advanced Bionics* framework and the appropriate *Becton, Dickinson* factors, we conclude that

the circumstances of this case do not warrant exercise of our discretion to deny institution based on § 325(d).

C. Legal Standards

A claim is unpatentable for obviousness if, to one of ordinary skill in the pertinent art, "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting 35 U.S.C. § 103(a)). The question of obviousness is resolved on the basis of underlying factual determinations, including "the scope and content of the prior art"; "differences between the prior art and the claims at issue"; and "the level of ordinary skill in the pertinent art." *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Additionally, secondary considerations, such as "commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy."[5] *Id.* When conducting an obviousness analysis, we consider a prior art reference "not only for what it expressly teaches, but also for what it fairly suggests." *Bradium Techs. LLC v. Iancu*, 923 F.3d 1032, 1049 (Fed. Cir. 2019).

A patent claim "is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." *KSR*, 550 U.S. at 418. An obviousness determination based on a combination of

[5] Patent Owner does not present any arguments regarding objective indicia of nonobviousness at this time. *See generally* Prelim. Resp.

references requires finding "both 'that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.'" *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367–68 (Fed. Cir. 2016) (quoting *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1360 (Fed. Cir. 2012)); *see KSR*, 550 U.S. at 418 (for an obviousness analysis, "it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does").

"Although the *KSR* test is flexible, the Board 'must still be careful not to allow hindsight reconstruction of references . . . without any explanation as to *how* or *why* the references would be combined to produce the claimed invention.'" *TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1066 (Fed. Cir. 2016) (quoting *Kinetic Concepts*, 688 F.3d at 1368). Further, an assertion of obviousness "cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR*, 550 U.S. at 418 (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)); *accord In re NuVasive, Inc.*, 842 F.3d 1376, 1383 (Fed. Cir. 2016) (stating that "conclusory statements" amount to an "insufficient articulation[] of motivation to combine"; "instead, the finding must be supported by a 'reasoned explanation'" (quoting *In re Lee*, 277 F.3d 1338, 1342 (Fed. Cir. 2002))); *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016) ("To satisfy its burden of proving obviousness, a petitioner cannot employ mere conclusory statements. The petitioner must instead articulate specific

reasoning, based on evidence of record, to support the legal conclusion of obviousness.").

D. Level of Ordinary Skill in the Art

Petitioner argues that at the time of the '207 patent (July 2005), a person of ordinary skill in the art would have had "at least a Bachelor's degree in electrical engineering or a related or equivalent field, and two or more years of experience working with audio systems," where "additional years of education in the above-referenced fields may compensate for fewer years of experience." Pet. 3 (citing Ex. 1002 ¶ 40); *see* Ex. 1002 ¶ 22. Patent Owner contends that a person of ordinary skill in the art would have had "a bachelor's degree in electrical engineering or a related subject and two to five years' experience working with multi-track audio and wireless communications systems in the professional performance industry," where "[l]ess education may be compensated for by a higher level of work experience." Prelim. Resp. 9 (citing Ex. 2015 ¶ 15; Ex. 2021 ¶ 11). Neither party provides substantive argument in favor of its proposed level of ordinary skill in the art or explains how the difference in proposed levels would impact the obviousness analysis.

Based on the record presented, including our review of the '207 patent and the types of problems and solutions described in the '207 patent and cited prior art, we determine that a person of ordinary skill in the art would have had a Bachelor's degree in electrical engineering and two or more years of experience working with audio and wireless communications

systems, and apply that definition for purposes of this Decision.[6] *See, e.g.*, Ex. 1001, col. 1, l. 43–col. 2, l. 38 (stating in the "Background of Invention" section of the '207 patent that "[e]mbodiments of the present invention generally relate to systems and methods for recording and processing audio received from one or more wireless devices" and describing previous systems to "record performance audio" and account for "wireless transmission errors"); Ex. 1018, 11–12 (adopting the same definition for purposes of the '814 patent).

E. Claim Interpretation

We interpret each challenged claim

> using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.

37 C.F.R. § 42.100(b). "In determining the meaning of [a] disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence." *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006). Claim terms are given their plain and ordinary meaning as would be understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir.

[6] To the extent the parties dispute the level of ordinary skill in the art for the '207 patent or the effective filing date of any of the challenged claims, the parties are encouraged to address the issue in their papers during trial.

2005) (en banc). "There are only two exceptions to this general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution." *Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

Petitioner "does not currently seek construction of any terms," and "does not present claim constructions or rebut all of Patent Owner's constructions" in its Preliminary Reply. *See* Pet. 14; Prelim. Reply 1. Patent Owner proposes interpretations for five terms, which we address below. *See* Prelim. Resp. 24–32.

1. "Wearable"

Patent Owner argues that "audio device wearable by a user for storing locally generated audio" in claims 17 and 59 means "a local audio device suitable to be worn by the performer who creates the audio that is recorded by that performer's local audio device." Prelim. Resp. 27. Petitioner does not provide a proposed interpretation in its Petition or Preliminary Reply.[7] *See* Pet. 14; Prelim. Reply 1. In the Lectrosonics IPRs, the Board, applying the broadest reasonable interpretation (BRI) standard, interpreted "wearable" in similarly worded claims to mean "suitable and in a condition to be worn." *See* Ex. 1014, 10–12; Ex. 1017, 10–12; Ex. 1018, 7–9.

We conclude that interpretation of the term "wearable" is necessary to resolve the parties' dispute. Patent Owner argues that the '207 patent describes wearability of local audio devices and requires the local audio

[7] In the district court case, Petitioner argued that "wearable" means "suitable and in a condition to be worn" and Patent Owner argued that the term means "[s]uitable to be worn by a performer." *See* Ex. 2006, 13–14.

device to include an audio input device, such as a microphone, that is worn by the performer and connects to the performer's local audio device to capture the performer's isolated audio track. Prelim. Resp. 27–28 (citing Ex. 1001, code (57), col. 11, ll. 13–14, col. 12, ll. 21–25). Patent Owner further argues that the prosecution history of parent U.S. Patent No. 7,711,443 B1 ("the '443 patent") "clarifies that 'wearable' requires the audio device to be 'suitable to be worn by the performer' and excludes devices that are merely portable (e.g., able to be carried in a backpack)." Prelim. Resp. 28–29. Patent Owner argues that the Notice of Allowance for the '443 patent distinguishes between "portable" and "wearable" where the prior art of record taught a portable device that could be carried in a backpack, which the Examiner found did not teach a "wearable" limitation of the claims at issue. *Id.* (citing Ex. 2017).

We agree with Patent Owner's analysis to the extent it specifies that the audio device is "suitable to be worn," but do not include "performer" in the interpretation, as claims 17 and 59 instead recite an audio device wearable by a "user." *See* Prelim. Resp. 27–28. Indeed, claim 48, which depends indirectly from claim 17, recites that "the user is a performer." *See Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004) ("the 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"). Based on the current record, we interpret "wearable" as "suitable and in a condition to be worn."

2. "Locally Generated Audio"

Patent Owner argues that "locally generated audio" in claims 17 and 59 means "audio created by the wearer of the local audio device receiving the locally generated audio, such audio suitable for use as an independent track of audio." Prelim. Resp. 25; Prelim. Sur-Reply 3–5. Patent Owner contends that this interpretation requires the creation of "an individual, isolated audio track to be used and independently edited in the resultant multitrack recording," and any definition that "collects all event audio on a single track of mixed audio without individual, isolated tracks of audio per performer/audio source directly contradicts the requirement for 'multitrack' recording." Prelim. Resp. 25–26. Petitioner does not propose an alternative interpretation, but argues that Patent Owner's proposal is overly narrow, as it essentially imports two requirements: (1) that the audio device be actually worn by the creator of the audio; and (2) that the audio be suitable for use as an independent track of audio. Prelim. Reply 3–4. The Board did not interpret "locally generated audio" in the Lectrosonics IPRs.[8]

We conclude that no express interpretation of "locally generated audio" is necessary to determine whether to institute an *inter partes* review because, even if Patent Owner's interpretation is adopted, Petitioner has shown sufficiently that Strub teaches "locally generated audio." *See infra* Section II.F.5.d; *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) ("Because we need only construe

[8] In the district court case, Petitioner argued that "locally generated audio" means "analog audio generated local to an audio device," and Patent Owner argued that the phrase means "[a]udio created by the wearer of the local audio device that is suitable for use as an independent track of audio." *See* Ex. 2006, 22–23.

terms 'that are in controversy, and *only to the extent necessary* to resolve the controversy,' we need not construe [a particular claim limitation] where the construction is not 'material to the . . . dispute.'" (citation omitted) (emphasis added)). The parties, however, are encouraged to address interpretation of the phrase during trial.

3. "Master Timecode Generator" and "Master Timecode"

Patent Owner argues that "master timecode generator" should be interpreted to mean "a producer of a master time reference signal that controls at least one other timecode generator" and "master timecode" should be interpreted to mean "a time reference signal used to synchronize at least one device." Prelim. Resp. 29. Petitioner does not provide proposed interpretations for the terms in its Petition or Preliminary Reply.[9] *See* Pet. 14; Prelim. Reply 1. In two of the Lectrosonics IPRs, the Board, applying the BRI standard, interpreted "master timecode generator" in similarly worded claims to mean "a producer of a plurality of master timecodes controlling other time code generators." *See* Ex. 1017, 12–14; Ex. 1018, 9–10. The Board noted that the specifications of the patents at issue "clearly provide[] support for the plain and ordinary meaning of master timecode generator—controlling other time code generators." *Id.*

[9] Petitioner argued in the district court case that "master timecode generator" means "a producer of a plurality of master timecodes controlling other time code generators" or "a producer of a master time reference signal comprising hours, minutes, seconds, and frames, that controls at least one other timecode generator," and "master timecode" means a "code[] synchronizing audio samples." *See* Ex. 2006, 9–12.

Claims 17 and 59 recite a control unit operable to "receive a master timecode from a master timecode generator and jam synchronize the local timecode generator to the master timecode generator using the master timecode." Patent Owner's proposed interpretation of "master timecode generator" is very similar to the one previously adopted by the Board and differs in only minor ways that appear to be commensurate with the language of claims 17 and 59. For example, Patent Owner's proposed interpretation includes "at least one" other timecode generator, as the claims recite "a" local timecode generator. Likewise, Patent Owner's proposed interpretation omits the language of the Board's interpretation requiring "a plurality of master timecodes," as the claims recite receiving "a master timecode."

We also agree with Patent Owner that the "master timecode generator" produces a signal that "controls" another timecode generator. *See* Prelim. Resp. 29 (citing a dictionary definition of "master" as "[one] that has control over another or others," Ex. 2019, 3). We see no basis, however, to limit the claim term to a particular *type* of control. Patent Owner points to Figure 5 of the '207 patent where "the speed of the local timecode generator and the sample rate of the [analog to digital converter (ADC)] are increased to maintain synchronization with the master timecode generator." Ex. 1001, col. 16, ll. 4–7, Fig. 5; *see* Prelim. Resp. 29. But Figure 5 merely depicts an exemplary "process for modifying the speed of a local timecode generator as necessary to maintain its synchronization with a master timecode generator in accordance with one embodiment." *See* Ex. 1001, col. 3, ll. 16–19, col. 11, ll. 29–35 (synchronization may occur "using a process such as that described below" for Figure 5). And the Specification expressly

contemplates "alternate embodiments." *See, e.g.*, *id.* at col. 2, ll. 56–63, col. 16, ll. 7–10, 37–40 ("Although FIG. 5 depicts one method of performing a feedback loop, many variations of this feedback loop may be substituted without departing from the scope of the present invention."), col. 43, ll. 13–19. Likewise, the Specification describes the exemplary embodiment of Figure 6 as a master unit providing master timecodes to a local audio device, which "synchronizes (e.g., jam syncs) its respective on board local timecode generator with the master timecodes," but does not specify exactly how the master unit exercises control. *Id.* at col. 17, ll. 9–18; *see* Prelim. Resp. 29–30. Also, claim 37, which depends from claim 17, recites that "synchroniz[ing] the local timecode generator to the master timecode generator is performed via varying . . . the speed of the local timecode generator." Thus, we do not include any particular control mechanism (e.g., changing the speed of the local timecode generator) in our interpretation at this time.[10]

Based on the current record, we interpret "master timecode generator" as "a producer of a master time reference signal that controls at least one other timecode generator" and "master timecode" as "a time reference signal used to synchronize at least one device."

[10] To the extent the parties disagree as to the meaning of "control[]" in the adopted interpretation, the parties are encouraged to address the issue in their papers during trial and, if necessary, provide a more descriptive interpretation for "master timecode generator," citing support in the Specification and/or prosecution history of the '207 patent.

4. "Jam Synchronize the Local Timecode Generator to the Master Timecode Generator"

Patent Owner argues that "jam synchronize the local timecode generator to the master timecode generator" in claims 17 and 59 should be interpreted to mean "align[] the internal clock of the local timecode generator with the internal clock of the master timecode generator," citing the parties' agreement in the district court case that "jam synchronize" means "aligning the internal clock of one device, program or application with the internal clock of another device, program or application," as well as various allegedly supporting disclosures in the Specification of the '207 patent. Prelim. Resp. 30–31 (quoting Ex. 2006, 8; citing Ex. 1001, col. 6, ll. 3–8, col. 14, ll. 52–56, col. 17, ll. 11–16). We agree with and adopt Patent Owner's proposed interpretation based on the current record.

F. Obviousness Ground Based on Strub, Woo, Nagai, and Gleissner

Petitioner contends that claims 17–19, 21–23, 33, 34, 59, 60, and 66 are unpatentable over Strub, Woo, Nagai, and Gleissner under 35 U.S.C. § 103(a), citing the testimony of Chris Kyriakakis, Ph.D., as support. Pet. 24–73 (citing Ex. 1002). Patent Owner responds, citing the testimony of James M. DeFilippis, P.E., and Jack Norflus as support. Prelim. Resp. 32–61 (citing Exs. 2015, 2021). We are persuaded that Petitioner has established a reasonable likelihood of prevailing on its asserted ground as to claim 17. *See* 37 C.F.R. § 42.108(a).

1. Strub

Strub, titled "Hybrid Recording Unit Including Portable Video Recorder and Auxiliary Device," is directed to "recording of [an] event by

multiple participants (i.e., from multiple points of view), often simultaneously." Ex. 1003, col. 1, l. 25–31. Strub discloses a "hybrid recording unit" that is "constructed by adding to a portable video recorder (e.g., camcorder, portable dockable videotape recorder (VTR)) one or more devices (an 'auxiliary device') that provide additional functionality to the portable video recorder." *Id.* at col. 5, ll. 23–29. "The auxiliary device can advantageously provide, for example, one or more of the following capabilities: marking, position sensing, physiological monitoring and/or biometric identification." *Id.* at col. 5, ll. 29–32. The hybrid recording unit is adapted to obtain a visual recording of the event as well as an audio recording of the event. *Id.* at col. 8, ll. 44–52. Multiple hybrid recording units may record a single event and one recording unit may transmit its recording to another recording unit. *Id.* at col. 37, ll. 18–40, col. 38, ll. 8–10.

Figure 1 of Strub is reproduced below.

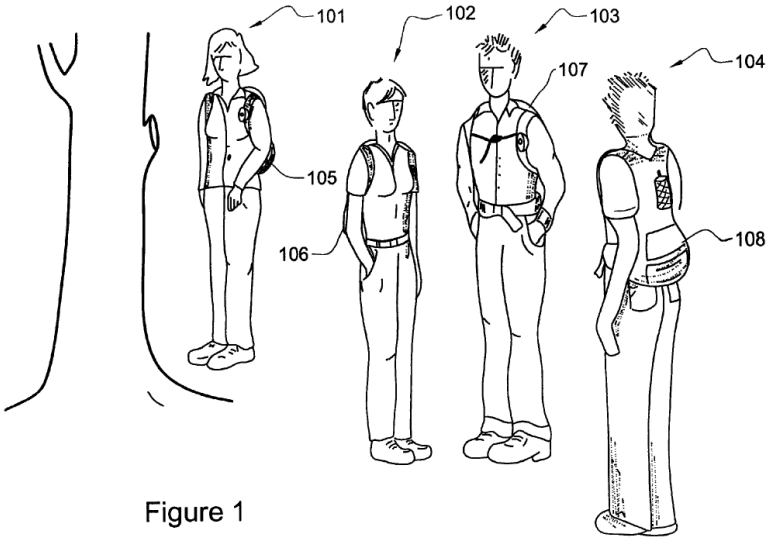

Figure 1

Figure 1 depicts four participants 101–104, equipped with respective recording units 105–108, who "are participating in, or observing, an event." Ex. 1003, col. 8, ll. 7–13.

Figure 3 of Strub is reproduced below.

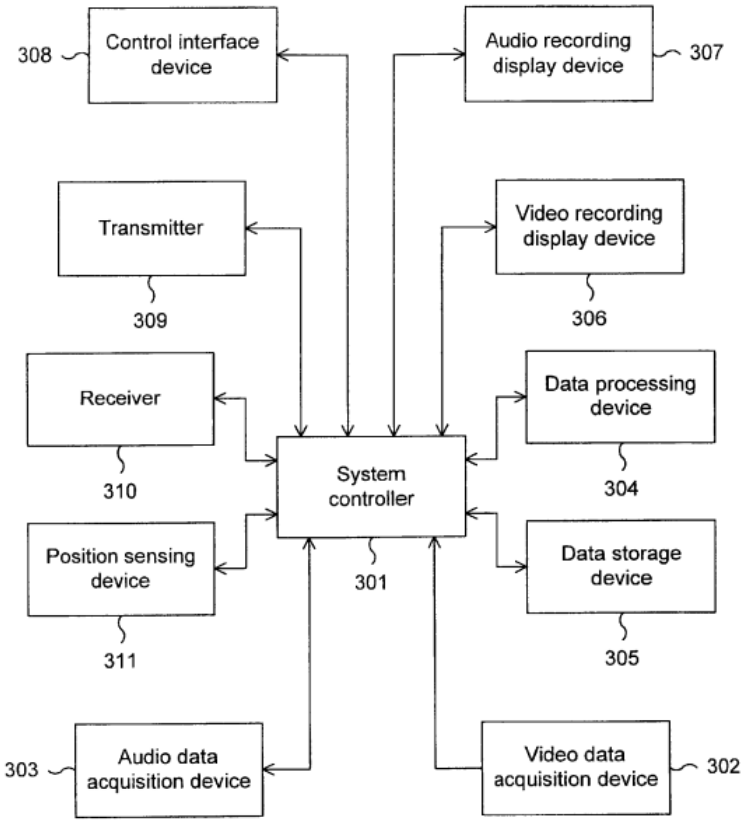

Figure 3 depicts the components of recording unit 300, including system controller 301, audio data acquisition device 303, data storage device 305, and transmitter 309. Ex. 1003, col. 11, l. 57–col. 12, l. 52. "[T]ransmitter 309 transmits signals . . . representing recording data acquired by the recording unit 300, so that such recording data can be used by other recording units (e.g., . . . to enable processing of recording data obtained by the recording unit 300)." *Id.* at col. 12, ll. 31–39. Strub also describes a global positioning system (GPS) receiver in the recording unit

> to receive a signal representing the current time that can be used as a clock to generate time-stamps for the recording data. Depending upon the speed of the processing device(s) of the recording unit, the GPS time signal can be updated about once a second. The GPS time signals are extremely accurate; thus, since

> all of the recording units are receiving this time signal, the time-stamps of all recording units are adequately synchronized.
>
> Though the recording unit must not be constantly blocked from GPS satellites in order for the recording unit to receive such time signals, the recording unit need only be exposed to a GPS satellite for about a minute to enable the time signals to begin. Further, after that point, clock drift occurs slowly, even if the recording unit is blocked from the GPS satellites for a period of time. Additionally, a recording unit according to the invention typically also includes an internal clock, as described above, that, while not as accurate as the GPS time signals, can also be used to accurately time-stamp data.

Id. at col. 63, ll. 41–60.

2. Woo

Woo is directed to a "time-keeping system for synchronizing sound and picture recordings from a plurality of independent recording devices at a shared performance." Ex. 1004, col. 4, ll. 62–66. The time-keeping system includes a master clock comprising GPS navigation satellite receiver 122 and digital signal processor 124. *Id.* at col. 8, ll. 60–65, Fig. 5. Master clock output 128 is a SMPTE (Society of Motion Picture and Television Engineers)-formatted timecode that is preferably compatible with commercially available equipment that has master clock input ports. *Id.* at col. 5, ll. 42–53, col. 9, ll. 1–4, Fig. 5.

Figure 1 of Woo is reproduced below.

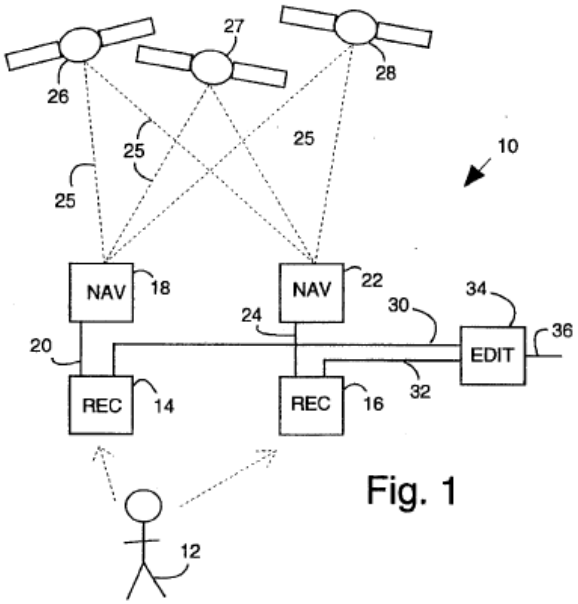

Fig. 1

Figure 1 depicts time-keeping system 10 for "synchronizing sound and picture recordings from a plurality of independent recording devices at a shared performance." Ex. 1004, col. 4, ll. 62–66. "[R]ecorder 14 captures the performance from its vantage point while another recorder 16 independently captures the same performance from its own vantage point." *Id.* at col. 5, ll. 3–5. "[N]avigation satellite receivers 18 and 22 receive a plurality of microwave radio transmissions 25 from a constellation of orbiting satellites" 26–28 and provide "highly-accurate date and time information" to recorders 14 and 16 over connections 20 and 24. *Id.* at col. 5, ll. 5–8, 21–30. "The recorders 14 and 16 each transmit their respective recordings over a pair of connections 30 and 32 to an editing station 34," where "[e]ach recording delivered to the editing station 34 has been date and time tagged, using date and time information received by the recorders 14 and 16." *Id.* at col. 5, ll. 37–46.

Figure 5 of Woo is reproduced below.

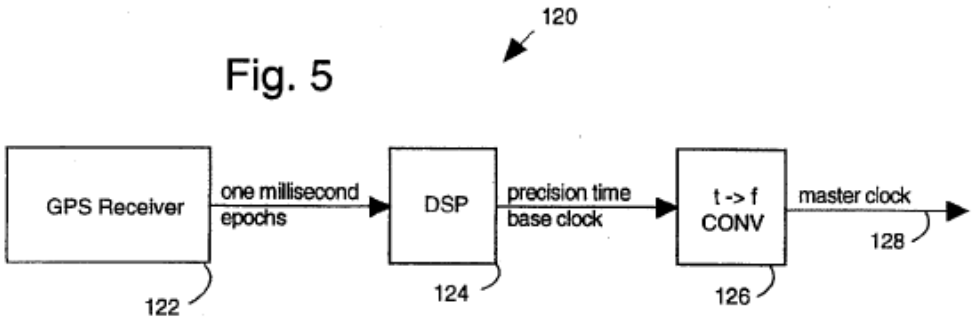

Figure 5 depicts master clock 120 comprising "GPS navigation satellite receiver 122 and . . . digital signal processor 124 for accumulating and averaging code epochs which occur each millisecond in time and having a precision time-base output," and time-period-to-frequency converter 126 with "precision clock output 128 for synchronizing film and video equipment." Ex. 1004, col. 8, l. 60–col. 9, l. 1. "[C]lock output 128 is conventionally formatted and distributed, and is preferably compatible with present-day commercially-available equipment that have master clock input ports." *Id.* at col. 9, ll. 1–4.

3. Nagai

Nagai is directed to a "data recording and reproducing apparatus" for recording and reproducing voice data. Ex. 1005 ¶¶ 2–5. Nagai's apparatus includes an audio input, a headphone jack for audio output, a memory card to store audio data, and a USB port for transferring audio data to another device. *Id.* ¶¶ 106, 125, 126, 139, 140, 145, Figs. 1, 2A, 2B.

4. Gleissner

Gleissner is directed to an audio data recorder that includes a microphone unit and a recording appliance (audio data recorder) connected

to one another via a plug connection. Ex. 1006 ¶ 10. The plug connection between the microphone unit and recording appliance provides both an electrical connection and a rigid mechanical connection. *Id.* The recording appliance may further be connected to headphones to allow a user to simultaneously hear the input into the microphone. *Id.* ¶ 33.

5. Claim 17

a) Collateral Estoppel

Petitioner argues that Patent Owner is collaterally estopped from disputing (1) the presence in the cited references of certain limitations, and (2) the obviousness of combining Strub, Woo, Nagai, and Gleissner, because the issues are identical to those decided in the Lectrosonics IPRs; the issues were actually litigated in the Lectrosonics IPRs; resolution of the issues was essential to the Lectrosonics IPRs; and Patent Owner had a full and fair opportunity to litigate the issues in the Lectrosonics IPRs. Pet. 8–13 (citing *Google LLC v. Hammond Dev. Int'l, Inc.*, 54 F.4th 1377, 1381 (Fed. Cir. 2022)). Petitioner also argues that Patent Owner is collaterally estopped from relying on "the same or substantially similar objective indicia of [non]obviousness" from the Lectrosonics IPRs in this proceeding for similar reasons. *Id.* at 13–14.

Patent Owner argues that collateral estoppel does not apply because the Board applied the BRI standard to the claims challenged in the Lectrosonics IPRs, so no claim interpretation was ever rendered under the *Phillips* standard and "issues regarding obviousness, which rely on such claim constructions, have also not been litigated." Prelim. Resp. 22–24 (citing *SkyHawke Techs., LLC v. Deca Int'l Corp.*, 828 F.3d 1373, 1376

(Fed. Cir. 2016)). Patent Owner argues that "[w]here a first IPR is decided under the BRI standard, and a second IPR concerning the same patent is to be decided under the *Phillips* standard, 'collateral estoppel . . . is not appropriate.'" *Id.* at 23 (citing *Ebates Performance Mktg., Inc. v. Int'l Bus. Machines Corp.*, IPR2022-00646, Paper 56 at 10 (PTAB Oct. 11, 2023)).

We agree with Patent Owner based on the current record. Although the Lectrosonics IPRs involved patents from the same family as the '207 patent, which recite many similar claim limitations, the Lectrosonics IPRs were all decided using the BRI standard, not the *Phillips* standard. Thus, no claim interpretation has been made using the standard that will be applied in this case, and the asserted prior art has not been applied to claims interpreted according to the standard in this case. Accordingly, on this record, we are not persuaded that collateral estoppel applies to any of the disputed issues in this proceeding. *See DDR Holdings, LLC v. Priceline.com LLC*, 122 F.4th 911, 918–919 (Fed. Cir. 2024) ("'Because the Board applies the broadest reasonable construction of the claims while the district courts apply a different standard of claim construction as explored in *Phillips*,' a party is not collaterally estopped in district court proceedings by the Board's constructions during IPR."); *SkyHawke*, 828 F.3d at 1376. Regardless, we determine that Petitioner has shown a reasonable likelihood of prevailing on its asserted ground as to claim 17 based on the preliminary claim interpretations applied herein. *See supra* Section II.E.

b) Undisputed Limitations

Petitioner argues that Strub, Woo, Nagai, and Gleissner collectively teach all of the limitations of claim 17. Pet. 24–57. The preamble of claim

17 recites "[a]t least one audio device wearable by a user for storing locally generated audio and transmitting the locally generated audio to a remote device, the remote device including at least one of a receiver, a recorder, a mixer, and combination thereof."[11] Petitioner argues that Strub teaches an "audio device" (i.e., any "one of recording units 105–108, 200, and 300" shown in Figures 1–3) that stores and transmits audio to a "remote device" (i.e., "a different one of recording units 105–108, 200, and 300") with a "receiver" (i.e., receiver 310 shown in Figure 3). *Id.* at 30–34. Petitioner further contends that the preamble also is taught by Woo, identifying an alleged "audio device" (i.e., "an arrangement comprising recorder 14, GPS receiver 18, and time code generator 43, or an arrangement comprising recorder 16, GPS receiver 22, and time code generator 43") and "remote device" (i.e., editing station 34) in Woo. *Id.* at 34–37.

Claim 17 next recites five components of the "audio device." Petitioner argues that Strub teaches a [A] "wireless transmitter" (i.e., wireless transmitter 309); [B] "audio input port configured to couple to an audio input device to receive the locally generated audio" (i.e., system controller 301's "connection to audio input device 303 (*e.g.*, microphone)"); [C] "memory" (i.e., data storage device 305); [D] "local timecode generator operable to generate a local timecode" (i.e., an "internal clock" that

[11] On the record before us, we determine that the preamble is limiting at least because the body of the claim refers to the preamble for antecedent basis for the terms "locally generated audio" and "remote device." *See Eaton Corp. v. Rockwell Int'l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003) ("When limitations in the body of the claim rely upon and derive antecedent basis from the preamble, then the preamble may act as a necessary component of the claimed invention."). Even if it was not, though, limitations 17[B], 17[G], and 17[H] recite the "locally generated audio" and "remote device."

generates "a signal indicating the time"); and [E] "control unit coupled to the wireless transmitter, the audio input port, the memory, and the local timecode generator" (i.e., "system controller 301 and/or data processing device 304"). Pet. 37–51. Petitioner asserts that, "[t]o the extent [Patent Owner] contends that Strub does not disclose" limitation 17[B], Nagai and Gleissner teach the recited "audio input port," identifying the "'mike jack' 2 or 64" in Nagai and the "XLR plug connector" in Gleissner. *Id.* at 43–45.

Finally, limitation 17[I] recites that the control unit is operable to "stamp at least a portion of the audio data with the local timecode." Petitioner argues that Strub describes system controller 301 as having "a clock that is used to time-stamp the recording data obtained by the recording unit," where the time-stamp can be used "to enable post-event synchronization of the display of recordings obtained by different recording units." Pet. 55–56 (quoting Ex. 1003, col. 13, ll. 50–58). Similarly, Petitioner contends that Woo describes recorders 14 and 16 transmitting recordings that were "date and time tagged, using date and time information received by the recorders 14 and 16" from navigation satellite receivers 18 and 22. *Id.* at 56–57 (quoting Ex. 1004, col. 5, ll. 37–45).

Patent Owner disputes whether the cited references teach a "wearable" audio device and "locally generated audio," but does not otherwise dispute the above limitations of claim 17. *See* Prelim. Resp. 32–46. Petitioner's analysis for the above limitations, supported by the testimony of Dr. Kyriakakis, is persuasive based on the current record. *See* Pet. 30–51, 55–57; Ex. 1002 ¶¶ 117–138, 143–150, 160–165.

c) "Wearable" Audio Device: Limitation 17[Pre]

Petitioner argues that Strub's recording units, shown in Figures 1 and 3, for example, are "wearable" by a user, as recited in the preamble of claim 17. Pet. 31–33. As explained above, we interpret "wearable" to mean "suitable and in a condition to be worn." *See supra* Section II.E.1.

Patent Owner argues that Petitioner has not established that Strub teaches an "audio device wearable by a user for storing locally generated audio." Prelim. Resp. 39–46. Patent Owner argues that Strub teaches different variations of recording units, some of which Patent Owner calls the "Basic Strub Recording Unit" and some of which Patent Owner calls the "Advanced Strub Recording Unit." *Id.* at 40. Patent Owner argues that Strub describes recording units 105–108 and recording unit 200 as Basic Strub Recording Units without any mention of a receiver, a transmitter, or an ability to transmit or receive data. *Id.* (citing Ex. 1003, col. 8, ll. 13–29, Fig. 2). Patent Owner argues that Strub describes recording unit 300 as an Advanced Strub Recording Unit that includes a transmitter and receiver, for which data acquisition is performed by a video data acquisition device and an audio data acquisition device, instead of the single data acquisition device of the Basic Strub Recording Units. *Id.* (citing Ex. 1003, col. 11, ll. 48–50, col. 12, ll. 13–16).

According to Patent Owner, Petitioner cites recording unit 300 as the "audio device" recited in claim 17, but cites Figure 1, which only refers to recording units 105–108, to show wearability of the recording units. Prelim. Resp. 40–41 (citing Pet. 31). Patent Owner argues that recording units 105–108 cannot be equated to the audio device of claim 17 because these Basic Strub Recording Units do not contain a transmitter and receiver and

Petitioner has made no showing of Strub teaching an Advanced Strub Recording Unit that contains a transmitter and receiver and is also wearable. *Id.* In support of this argument, Patent Owner argues that Strub (1) at col. 4, ll. 21–31 teaches a Basic Strub Recording Unit with no receiver or transmitter; (2) at col. 14, l. 59–col. 15, l. 11 and col. 16, l. 66–col. 17, l. 24 describes wearability of a visual acquisition device, not the recording unit, which shows that the visual acquisition device is not wearable because it must be attached to a wearable apparatus; (3) at col. 38, l. 65–col. 39, l. 11 describes wearability of an audio communication device, not a recording unit; (4) at col. 66, ll. 33–51 describes a data acquisition device, which is used in the Basic Strub Recording Unit, and this device may not even be wearable; and (5) at col. 67, l. 54–col. 68, l. 10 and col. 72, ll. 9–19 refers to the wearability of a Basic Strub Recording Unit with no receiver or transmitter. Prelim. Resp. 41–43.

We disagree with Patent Owner's arguments based on the current record. Patent Owner cites various disclosures in Strub, arguing that they break down into two categories—Basic and Advanced Strub Recording Units. But this distinction is not supported by Strub's teachings. As cited by Petitioner, *see* Pet. 33, Strub teaches that its recording units may include many potential combinations of components and that the goal of packaging these components together is to achieve a small, light, unobtrusive recording unit that is comfortable to wear, *see* Ex. 1003, col. 66, ll. 33–51. Petitioner identifies teachings in Strub regarding potential components of recording units, including communications devices such as the transmitter and receiver. Pet. 37–38 (citing Ex. 1003, col. 35, l. 51–col. 36, l. 29). Petitioner identifies teachings in Strub indicating that it would be desirable

to include many of these components in a single apparatus that is easily worn. *Id.* at 33 (citing Ex. 1003, col. 4, ll. 21–31 (describing "a small, lightweight, wearable recording unit"), col. 66, ll. 33–51 (disclosing goals of making the recording unit "small," "comfortable to wear," and "as lightweight as possible")). Strub teaches that certain components may be excluded from this apparatus to keep the recording unit as compact as possible, but the transmitter and receiver are not included in this exclusion list. *See* Ex. 1003, col. 66, ll. 33–51. Accordingly, Patent Owner's argument that Strub distinguishes between two categories of recording units such that Petitioner errs by relying on "Basic Strub Recording Units" for wearability is unsupported on the current record.

Moreover, the visual and audio acquisition devices described by Patent Owner as separate from the recording unit may be internal components of the recording unit or may be connected to a recording unit that is worn by a recorder. Claim 17 recites "[a]t least one audio device wearable by a user for storing locally generated audio . . . comprising . . . an audio input port configured to couple to an audio input device to receive the locally generated audio." In other words, the audio input device may be separate from the claimed audio device that is wearable by a user for storing locally generated audio.

Finally, to the extent Patent Owner asserts that Strub's recording units are not suitable to be worn by a "performer" because "they are too large, visible, heavy, and imposing to be worn during the filming of performances," we are not persuaded, because we have interpreted "wearable" more broadly, to require only a "user." *See* Prelim. Resp. 43–45; *supra* Section II.E.1.

At this stage, we find that Petitioner has made a sufficient showing that Strub teaches a "wearable" audio device as recited in claim 17.

d) "Locally Generated Audio": Limitations 17[Pre], 17[G], and 17[H]

The preamble of claim 17 recites that the audio device is "for storing locally generated audio and transmitting the locally generated audio to a remote device." Limitations 17[G] and 17[H] recite that the control unit is operable to "transmit the locally generated audio to the remote device via the wireless transmitter" and "store the locally generated audio in the memory as audio data," respectively. Petitioner identifies as "locally generated audio" the audio that is captured by receiver 310, transmitted by transmitter 309, and stored in data storage device 305 of Strub's recording unit. Pet. 31–34, 53–55. Petitioner asserts that Woo teaches "locally generated audio" as well, identifying the audio captured and stored by recorders 14 and 16 and transmitted to editing station 34. *Id.* at 34–37, 53–55.

Patent Owner argues that Strub and Woo teach "the opposite of 'locally generated audio'" because their audio is "locally 'received' or 'heard' by a recorder," not "generated, or created, by the recorder." Prelim. Resp. 36 (citing Ex. 1003, col. 22, ll. 16–33; Ex. 1004, col. 5, ll. 3–5). Patent Owner asserts that this "heard" audio is not suitable for multi-track recording because it "does not include individual, isolated tracks of audio" for each performer that can be independently edited. *Id.* at 36–37 (quoting Ex. 2015 ¶ 232; citing Ex. 2021 ¶ 15).

Petitioner argues that even under Patent Owner's construction, Strub teaches "locally generated audio." Prelim. Reply 5. In particular, Petitioner argues that Strub teaches recording units that "may be 'worn' by a person

'participating in' as opposed to merely 'observing' an event." *Id.* (citing Ex. 1003, code (57), col. 1, ll. 24–35, col. 8, ll. 6–26, col. 11, ll. 3–17, Fig. 1). According to Petitioner, Strub provides examples, such as participants singing "Happy Birthday," playing ping pong, and participating in a group hike or family trip to an amusement park. *Id.* (citing Ex. 1003, col. 2, ll. 55–65, col. 47, ll. 33–39, col. 52, ll. 19–24, col. 67, l. 59–col. 68, l. 2). Petitioner argues that each audio device records "'an independent track of audio' distinct from the recordings of other devices since they are not co-located and would receive sound differently." *Id.* Petitioner contends that Patent Owner provides no evidence that multiple voices, including those of people not wearing the audio device, "cannot be recorded as an independent audio track." *Id.*

We disagree with Patent Owner's arguments based on the current record. Although Strub describes embodiments where the focus of the recording performed by the audio device is on sounds primarily in front of the recorder, as cited by Patent Owner, *see* Prelim. Resp. 36 (citing Ex. 1003, col. 22, ll. 16–33), Petitioner also has identified embodiments where the audio device captures audio created by the wearer of the device, *see* Prelim. Reply 5. Indeed, Strub refers to the recorder's participation in the event being recorded repeatedly throughout its disclosure, providing multiple examples as Petitioner points out. *See id.*

At this stage, we find that Petitioner has made a sufficient showing that Strub teaches "locally generated audio" as recited in claim 17.

e) "Master Timecode Generator," "Master Timecode," and "Jam Synchronize": Limitation 17[F]

Limitation 17[F] recites that the control unit is operable to "receive a master timecode from a master timecode generator and jam synchronize the local timecode generator to the master timecode generator using the master timecode." As explained above, we interpret "master timecode generator" as "a producer of a master time reference signal that controls at least one other timecode generator," "master timecode" as "a time reference signal used to synchronize at least one device," and "jam synchronize the local timecode generator to the master timecode generator" as "align the internal clock of the local timecode generator with the internal clock of the master timecode generator." *See supra* Sections II.E.3–4.

Petitioner argues that "Strub discloses receiving a master timecode—*e.g.*, GPS time information—from a master timecode generator—*e.g.*, a GPS satellite or SMPTE timecode source—and jam synchronizing the local timecode generator—the internal clock—to the master timecode generator using the master timecode." Pet. 51–52 (citing Ex. 1003, col. 62, ll. 53–54, col. 63, ll. 50–60, col. 75, ll. 25–57, col. 79, l. 63–col. 80, l. 7, Fig. 3; Ex. 1002 ¶ 152). Petitioner further contends that, "[t]o the extent [Patent Owner] contends that Strub does not disclose" limitation 17[F], "Woo discloses receiving a master timecode from a master timecode generator—*e.g.*, one or more of GPS satellites 26–28—and jam synchronizing the local timecode generator 43 to the satellite(s) using the master timecode." *Id.* at 18–19, 52–53 (citing, e.g., Ex. 1004, col. 3, ll. 37–45, col. 5, ll. 5–10, 21–29, col. 7, ll. 26–47, col. 8, l. 60–col. 9, l. 4, Figs. 2–4; Ex. 1002 ¶ 153). And Petitioner provides reasons why a person of ordinary skill in the art would have been motivated to modify Strub's system to incorporate Woo's method

of synchronizing a local timecode generator to a master timecode generator. *Id.* at 24–29. At this stage, we find that Petitioner has made a sufficient showing that Woo teaches limitation 17[F].[12]

Patent Owner, relying on the testimony of Mr. DeFilippis, argues that "there is no teaching that Woo's master clock produces a time reference signal used to synchronize at least one device via the control of at least one other (slave) timecode generator." Prelim. Resp. 53 (quoting Ex. 2015 ¶ 259). Patent Owner contends that "there is no mention of any such secondary timecode generator in Woo, let alone that they are controlled by Woo's master clock." *Id.* Mr. DeFilippis explains that "[t]he mere disclosure of a master clock and master clock input ports on commercially-available equipment does not nearly meet the requirements of the claimed 'master timecode generator' that is a producer of a master time reference signal that controls at least one other timecode generator." *Id.* (quoting Ex. 2015 ¶ 260). Mr. DeFilippis further opines that Woo needs to combine the time output of its GPS receiver with "a highly accurate pulse because the output of the GPS receiver is insufficient to achieve synchronization," whereas the '207 patent "produces timecodes having sufficient data to synchronize audio segments." *Id.* at 53–54 (quoting Ex. 2015 ¶ 261; citing Ex. 1004, col. 8, ll. 13–18).

[12] As explained above, Petitioner alternatively argues that Strub alone teaches the limitation, and the parties make various arguments regarding Strub's disclosure. *See* Pet. 51–52; Prelim. Resp. 46–53; Prelim. Reply 1–3; Prelim. Sur-Reply 1–3. We need not evaluate Petitioner's alternative arguments regarding Strub at this time, given Petitioner's showing regarding the combination with Woo.

We disagree based on the current record. Woo teaches providing master timecodes in SMPTE format for the purpose of synchronizing recorded data from independent sound, film, and video recorders. *See* Ex. 1004, codes (54), (57), col. 3, ll. 20–24, col. 4, ll. 13–15; Pet. 52–53. As shown in Figure 5, "master" clock 120, comprising GPS navigation satellite receiver 122, digital signal processor 124, and time-period-to-frequency converter 126, receives a GPS time signal and provides a "precision clock output . . . for synchronizing film and video equipment." Ex. 1004, col. 8, l. 60–col. 9, l. 1. Woo further describes the "slave" or "jam-sync" process, which "allows a time code generator to *follow* the time code off another source." *Id.* at col. 3, ll. 38–41 (emphasis added), col. 7, ll. 29–38 ("A commercially-available time code generator 43 . . . generates time code[s] . . . and will jam to both the output connection 38 and normal SMPTE/EBU time code."). Thus, based on the current record, Petitioner has explained sufficiently how the GPS time signal in Woo is used to control, via the jam-sync process, the local timecode generator of the recorder. *See* Pet. 52–53; Prelim. Reply 3.

Patent Owner also makes various arguments in its Preliminary Sur-Reply pertaining to the issue of "control" of the local timecode generator. *See* Prelim. Sur-Reply 1–2. Patent Owner contends that the GPS signals in Strub and Woo "provide time information to their internal clocks" but "do not exercise control over *how the internal clocks operate (e.g., the speed of such clocks)*." *Id.* at 1 (emphasis added). Likewise, Patent Owner argues that "the reliability of a GPS time signal . . . is entirely contingent upon continuous signal availability because Strub and Woo do not teach the ability of the GPS signals to control *the operation of the internal clocks*."

Id. at 2 (emphasis added). As explained above, we preliminarily interpret "master timecode generator" to mean "a producer of a master time reference signal that controls at least one other timecode generator," but do not limit the term to any particular type of control. *See supra* Section II.E.3. On this record, we do not see any requirement in the claim that the master time reference signal control the *operation* of an internal clock of the local timecode generator (e.g., by modifying the speed of such a clock). Limitation 17[F] merely recites that the control unit receives a master timecode from the master timecode generator and jam synchronizes the local timecode generator to the master timecode generator using that timecode—i.e., it *aligns* the internal clock of the local timecode generator to the internal clock of the master timecode generator. *See supra* Sections II.E.3–4. Also, to the extent Patent Owner asserts that the master timecode generator must itself "control[] how the local timecode generator operates," we disagree; our preliminary interpretation specifies that it is the master time reference *signal* that "controls" the other timecode generator. *See* Prelim. Sur-Reply 1–2; Ex. 2015 ¶¶ 50, 93.

Next, relying on the testimony of Mr. Norflus, Patent Owner argues that "GPS or satellite reception of time code[s] is unreliable and not a viable solution for the transmission or reception of timecode[s]," as "[t]here are many instances where receiving a GPS signal would just not be possible" (e.g., "recording studios" or "underground locations"). Prelim. Resp. 54 (quoting Ex. 2021 ¶ 27); Prelim. Sur-Reply 2–3. The '207 patent, by contrast, "provides for accurate transmission of master timecodes in all locations including those not accessible by satellite signals" according to Patent Owner. Prelim. Resp. 54–55. Claim 17, however, does not include

any requirement for synchronization from "all" locations or instances—the relevant question is whether the device based on the combined teachings of Strub and Woo would have a control unit operable to "receive a master timecode from a master timecode generator and jam synchronize the local timecode generator to the master timecode generator using the master timecode." Based on Woo's disclosure discussed above regarding a recorder being capable of and actually receiving a GPS time signal for use in synchronization, Petitioner has made a sufficient showing on this record. *See, e.g.*, Ex. 1004, col. 3, ll. 38–41, col. 7, ll. 27–53, col. 8, l. 60–col. 9, l. 4, Figs. 1, 3, 5.

Finally, Patent Owner argues that Strub does not teach a control unit operable to "jam synchronize" as recited in limitation 17[F]. Prelim. Resp. 55. Again, Petitioner on this record has made a sufficient showing with respect to Woo and we need not evaluate Petitioner's alternative arguments regarding Strub. The "slave" or "jam-sync" process described in Woo allows the local timecode generator to "follow the time code off another source" (i.e., a GPS satellite providing the GPS time signal). Ex. 1004, col. 3, ll. 38–41, col. 7, ll. 29–38; *see* Pet. 52–53.

At this stage, we find that Petitioner has made a sufficient showing that Woo teaches limitation 17[F].

f) Analogous Art

Patent Owner argues that Strub and Woo are both non-analogous art because they are neither in the same field of endeavor as the claimed invention nor reasonably pertinent to the problems faced by the inventors of the '207 patent. Prelim. Resp. 58–59. Patent Owner contends that Strub and

Woo are not in "the field of multi-track recording" and Strub is not in "the field of professional sound recording." *Id.* at 58. Patent Owner further asserts that "Woo discloses a 'GPS receiver [that] comprises a data output port for communicating time code information formatted according to standards,'" whereas the claimed invention "does not mention any 'GPS satellite or receiver; it instead relates to using a master timecode generator to control other timecode generators in other recorders'" and "GPS signals are known to be incompatible with performance recording as many recording locations . . . are not capable of receiving satellite signals." *Id.* at 58–59 (quoting Ex. 1004, code (57), and Ex. 2015 ¶ 273; citing Ex. 2021 ¶ 27).

"A reference qualifies as prior art for an obviousness determination under § 103 only when it is analogous to the claimed invention." *In re Klein*, 647 F.3d 1343, 1348 (Fed. Cir. 2011). "Two separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved." *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004).

Based on the current record, we are persuaded that Strub and Woo satisfy both tests. The '207 patent describes a field of endeavor of synchronizing different recordings of a live performance. *See, e.g.*, Ex. 1001, col. 1, ll. 45–51 ("Embodiments of the present invention generally relate to systems and methods for recording and processing audio received from one or more wireless devices."). Strub and Woo are from the same field. *See, e.g.*, Ex. 1003, col. 1, ll. 26–31 ("The invention . . . relates to recording an event in which multiple persons participate . . . [and] recording

of the event by multiple participants (i.e., from multiple points of view), often simultaneously."), col. 52, ll. 18–24 (describing "a recording of a birthday party" involving "the singing of 'Happy Birthday'"); Ex. 1004, codes (54) ("Time-Keeping System and Method for Synchronizing Independent Recordings of a Live Performance in Post-Recording Editing"), (57) (describing "time code information . . . input to independent sound, film and video recorders at a performance event to create tracks on each recording for re-synchronizing the pictures and sounds in post-performance editing"). We disagree that the field of endeavor is limited to "professional" sound recording as Patent Owner contends. *See* Prelim. Resp. 58; *Unwired Planet, LLC v. Google Inc.*, 841 F.3d 995, 1001 (Fed. Cir. 2016) ("The field of endeavor of a patent is not limited to the specific point of novelty, the narrowest possible conception of the field, or the particular focus within a given field.").

The '207 patent also addresses problems with synchronization of audio from multiple recording devices using timecodes or timestamps (e.g., in the case of transmission errors for a particular audio track). *See, e.g.*, Ex. 1001, col. 1, l. 52–col. 2, l. 38, col. 4, l. 3–col. 5, l. 10 ("[s]ynchronization is essential to ensure that each performer's audio is synchronized with all other performers' audio" and "must maintain a high accuracy for each performer's timestamps with respect to all other performers' timestamps"). Strub and Woo are reasonably pertinent to the problem of synchronization. *See, e.g.*, Ex. 1003, col. 63, ll. 41–60 ("[T]he time-stamps of all recording units are adequately synchronized."), col. 75, ll. 47–51; Ex. 1004, code (57), col. 4, l. 62–col. 5, l. 53 (describing SMPTE timecodes and jam synchronization). And the fact that both references

utilize GPS signals as part of their respective *methods* of synchronization does not undermine the pertinence of the references to the general problem of synchronization of audio from different recording devices. *See* Prelim. Resp. 58–59; *Innovention Toys, LLC v. MGA Entm't, Inc.*, 637 F.3d 1314, 1321 (Fed. Cir. 2011) ("A reference is reasonably pertinent if . . . it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem.").

g) Reasons to Combine

Petitioner argues that it would have been obvious to modify Strub's recording unit to include "a conventional SMPTE timecode input port for receiving conventional SMPTE-formatted master timecodes from Woo's master clock," which "would involve nothing more than combining familiar elements according to known methods to improve Strub's system and yield predictable results." Pet. 25, 28–29 (citing Ex. 1002 ¶¶ 107, 112). Petitioner points out various similarities between the Strub and Woo systems and asserts that Woo "provides express motivations to use its synchronization methods in a wireless, multi-recorder system such as Strub's." *Id.* at 24–25. In particular, Petitioner contends that

> Woo's master clock (1) provides accurate synchronization across recorders recording a performance, (2) can generate coordinated timecodes at independent sites proximate to recorders, (3) is simple to connect to the recorders, and (4) provides timecode output in a format that is compatible with a standard (SMPTE) used by commercially available equipment.

Id. at 25 (citing Ex. 1004, col. 4, ll. 3–44).

Petitioner further argues that the '207 patent "sought to solve the problem of matching the timing between multiple recordings produced by

one or more wireless devices" by "generating master timecodes with a master timecode generator, providing those timecodes to a local recording device, and using the timing information in those timecodes to time-stamp the locally recorded audio data." Pet. 27 (citing, e.g., Ex. 1001, col. 4, ll. 3–26, col. 4, l. 52–col. 5, l. 10). Petitioner asserts that "Strub and Woo recognized and solved that same problem in the same way," pointing to the references' disclosures regarding synchronization using GPS time signals. *Id.* at 27–28 (citing, e.g., Ex. 1003, col. 62, l. 26–col. 63, l. 60; Ex. 1004, code (57), col. 4, ll. 13–19, col. 5, ll. 5–10, col. 7, ll. 26–50).

Patent Owner's arguments in response are largely premised on an alleged failure of Strub and Woo to teach certain claim limitations. *See* Prelim. Resp. 56–57. Patent Owner disputes that a person of ordinary skill in the art would have combined the teachings of Strub and Woo to solve the "dropout problem" because the references do not teach "multi-track recording," as they "capture single tracks of mixed audio that do not include individual tracks of audio per performer/audio source." *Id.* at 56. Based on the current record, we disagree with Patent Owner's assertion that the references do not teach "locally generated audio," for the reasons explained above. *See supra* Section II.F.5.d.

Similarly, Patent Owner argues that an ordinarily skilled artisan would not have combined Strub and Woo because the approaches followed by the two references "substantially differ from each other and the claimed invention." Prelim. Resp. 56–57 (quoting Ex. 2015 ¶ 267; citing Ex. 2015 ¶ 270). According to Patent Owner, "Strub discloses a GPS time signal that produces time stamps but does not control another timecode generator and does not produce a time reference signal used to synchronize at least one

device," and Woo teaches a master clock with a GPS navigation satellite receiver and digital signal processor. *Id.* at 57 (citing Ex. 2015 ¶ 269). Again, based on the current record, we disagree with Patent Owner's assertion that the references do not teach a "master timecode generator" producing a master time reference signal that controls a local timecode generator, for the reasons explained above. *See supra* Section II.F.5.e. And, although the specific synchronization functionality is different in the references, Strub and Woo are similar in that they both teach receiving a GPS time signal and using it for synchronization. *See* Pet. 27–28.

Finally, Patent Owner argues that "Strub already discloses a solution to post-production editing (i.e., participants share their locally recorded audio after a recorded event)," so "applying the Woo solution in post-production in Strub would have been unnecessary." Prelim. Resp. 57–58 (quoting Ex. 2015 ¶ 271; citing Ex. 1003, col. 80, ll. 52–58). We disagree on this record. Petitioner provides multiple reasons for why a person of ordinary skill in the art would have found it desirable to modify Strub's system to use the synchronization method of Woo, including that Woo's system produces "accurate synchronization across recorders," generates "coordinated timecodes at independent sites proximate to recorders," is "simple to connect," and provides timecodes in a format compatible with commercially available equipment, with supporting testimony from Dr. Kyriakakis. *See* Pet. 25; Ex. 1002 ¶ 107; *In re Fulton*, 391 F.3d 1195, 1200 (Fed. Cir. 2004) ("'[T]he question is whether there is something in the prior art as a whole to suggest the *desirability*, and thus the obviousness, of making the combination,' not whether there is something in the prior art as a whole to suggest that the combination is the *most desirable*

combination available."). Petitioner also explains how Strub and Woo address the same problem of synchronization of audio from multiple recording devices, again with supporting testimony. *See* Pet. 27–28; Ex. 1002 ¶¶ 110–111, 113; *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1380 (Fed. Cir. 2023) ("That [two references] address the same problem and that [one reference's teaching] was a known way to address that problem is precisely the reason that there [is] a motivation to combine under *KSR* . . . ."). Petitioner has made a sufficient showing as to the combination of Strub and Woo based on the current record.

As to the further combination with Nagai and Gleissner, Petitioner argues that a person of ordinary skill in the art "would have been motivated to include Nagai's microphone jack or Gleissner's microphone plug connection in Strub's and/or Woo's local audio device," for example, because doing so would "allow different kinds of microphones to be easily swapped in and out of [Strub's] and Woo's audio recording systems to match the systems to the particular application and environment." Pet. 25–26, 45.

Patent Owner responds that modifying Strub's system based on Nagai or Gleissner would change the principle of operation of Strub or render it unsuitable for its intended purpose. Prelim. Resp. 59–61. In particular, Patent Owner argues that Strub's intended purpose is "low attention, social recording that allows multiple recorders to record the same event from multiple viewpoints." *Id.* at 60 (citing Ex. 1003, code (57)). Patent Owner argues that Petitioner's proposed modification of Strub to incorporate Nagai's audio input port (a mic jack) or Gleissner's conventional audio input port (an XLR plug connector) "would cause each Strub recorder to record

only the recorder's audio" via the audio input port, "which would result in only one audio recording for any given event despite the number of recorders or possible viewpoints." *Id.* at 60–61.

We disagree with Patent Owner's arguments based on the current record. Strub discloses that its audio device may include an "audio data acquisition device," such as a "lavalier microphone." *See* Pet. 41–42 (citing Ex. 1003, col. 68, l. 63–col. 69, l. 67). Petitioner alleges that an ordinarily skilled artisan would have understood Strub to teach a "microphone [that] is not soldered or hard-wired, but is connected to the local audio device through an audio input port such as a microphone jack and/or plug." *Id.* Petitioner proposes incorporating Nagai's mic jack or Gleissner's XLR plug connector as an "audio input port," to the extent Strub does not teach such a port. *Id.* at 43–45. Thus, the proposed modification does not necessarily change the operation of the audio data acquisition device itself, only its physical connection to the wearable audio device. Patent Owner's argument that the proposed modification would change the manner of recording thus is not commensurate with the scope of Petitioner's proposed combination.

Petitioner has made a sufficient showing as to the combination of Strub and Woo with Nagai and Gleissner based on the current record.

h) Conclusion

Petitioner's contentions regarding the combination of Strub, Woo, Nagai, and Gleissner are supported by the testimony of Dr. Kyriakakis and are persuasive based on the current record. *See* Pet. 24–57; Ex. 1002 ¶¶ 105–115, 117–138, 143–165. Petitioner has shown a reasonable likelihood of prevailing on its assertion that claim 17 is unpatentable over

Strub, Woo, Nagai, and Gleissner. Accordingly, we institute review "on all of the challenged claims and on all grounds of unpatentability asserted for each claim." *See* 37 C.F.R. § 42.108(a).

6. Claims 18, 19, 21–23, 33, 34, 59, 60, and 66

Patent Owner argues independent claims 17 and 59 together and does not argue dependent claims 18, 19, 21–23, 33, 34, 60, and 66 separately. Prelim. Resp. 32–61. On this record, we disagree with Patent Owner's arguments regarding the independent claims and are persuaded that Petitioner has shown a reasonable likelihood of prevailing on its assertion that claim 17 is unpatentable over Strub, Woo, Nagai, and Gleissner. *See supra* Section II.F.5. Accordingly, we need not determine at this time whether Petitioner also has shown a reasonable likelihood of prevailing as to any of the other challenged claims. *See* 37 C.F.R. § 42.108(a).

III. CONCLUSION

Based on the arguments presented in the Petition, we conclude that Petitioner has demonstrated a reasonable likelihood of prevailing with respect to at least one claim of the '207 patent challenged in the Petition. Accordingly, we institute a trial on all claims and all grounds asserted in the Petition. The Board has not made a final determination under 35 U.S.C. § 318(a) with respect to the patentability of the challenged claims.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 17–19, 21–23, 33, 34, 59, 60, and 66 of the '207 patent is instituted with respect to all grounds set forth in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the '207 patent shall commence on the entry date of this Decision, and notice is hereby given of the institution of a trial.

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