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Paper 15
Date: September 30, 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.

IPR2025-00557
Patent 12,051,444 B2

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

PER CURIAM.

DECISION
Denying 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 1–7, 9, 10, 12–20, 22–24, 26, and 27 of U.S. Patent No. 12,051,444 B2 (Ex. 1001, "the '444 patent") pursuant to 35 U.S.C.

§ 311(a). Patent Owner Zaxcom, Inc. filed a Preliminary Response (Paper 7, "Prelim. Resp.") pursuant to 35 U.S.C. § 313. Also, pursuant to our authorization (Paper 12), Petitioner filed a Preliminary Reply (Paper 13, "Prelim. Reply") and Patent Owner filed a Preliminary Sur-Reply (Paper 14, "Prelim. Sur-Reply"). Patent Owner's request for discretionary denial was denied and the Petition was referred to the Board. Paper 11.

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 do not institute an *inter partes* review.

B. Related Matters

The parties indicate that the '444 patent is the subject of *Zaxcom, Inc. v. RODE Microphones, LLC, et al.*, No. 1:23-cv-01245-JFM (D. Del.) ("the district court case"). *See* Pet. xi; Paper 3, 2. Petitioner filed petitions challenging other patents related to the '444 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. 10,276,207 B1 (IPR2025-00232).

Three patents related to the '444 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 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 '444 Patent

The '444 patent discloses a system and method "for wirelessly recording multi-track audio files." Ex. 1001, code (57). Figure 1 of the '444 patent is reproduced below.

FIG. 1

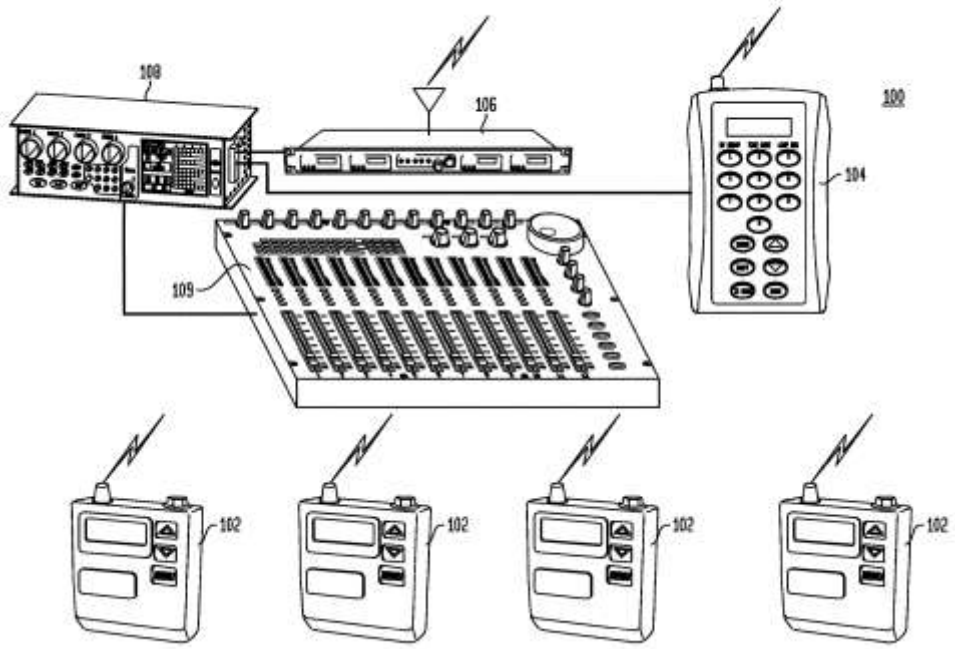

Figure 1 depicts recording system 100, which "wirelessly records audio events, such as performances, movie takes, etc. having one or more performers." Ex. 1001, col. 3, ll. 64–66. "Recording system [100] includes local audio devices 102, remote control unit ('RCU') 104, receiver 106, and recorder 108." *Id.* at col. 4, ll. 24–26. 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, ll. 48–60. 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. 36–38. "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. 26–29. The RCU 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. 29–35.

D. Illustrative Claims

Challenged claims 1 and 13 of the '444 patent are independent. Claims 2–7, 9, 10, and 12 depend from claim 1. Claims 14–20, 22–24, 26, and 27 depend from claim 13. Claim 1 recites the following (with letter designations used in the Petition to refer to the various limitations):

> 1. [Pre] A system for locally recording locally generated audio as time-referenced local audio data and for substantially simultaneously transmitting audio data to a remote device, the system comprising:
>
> [A] a remote receiver, the remote receiver configured to create at least one master timecode and to receive audio data;
>
> [B] a local audio device capable of communicating with the remote receiver and configured to receive locally generated audio;
>
> [C] the at least one local audio device wearable by a creator of the locally generated audio,
>
> [D] the at least one local audio device including: at least one local memory;
>
> [E] at least one local transmitter;
>
> [F] at least one local receiver; and
>
> [G] at least one local processing unit, the at least one local processing unit operatively coupled to the at least one local memory, and, optionally, the at least one local transmitter and, optionally, the at least one local receiver,
>
> [H] wherein the at least one local memory stores instructions that, when executed by the at least one local processing unit, configures the local audio device to: receive the at least one master timecode from the remote receiver via the at least one local receiver;

[I] create time-referenced local audio data from the locally generated audio and the at least one master timecode;

[J] store the time-referenced local audio data in the at least one local memory; and

[K] wherein the audio data is transmitted to the remote receiver substantially simultaneously with the receiving of the local audio data by the local audio device, the creating of the time-referenced local audio data, or the storing of the time-referenced local audio data in the at least one local memory.

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");

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

U.S. Patent Application Publication No. 2004/0267387 A1, published Dec. 30, 2004 (Ex. 1007, "Samadani").

F. Prior Art and Asserted Grounds

Petitioner asserts that claims 1–7, 9, 10, 12–20, 22–24, 26, and 27 of the '444 patent would have been obvious on the basis of prior art printed publications under 35 U.S.C. § 103(a) on the following grounds:[1]

[1] The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) ("AIA"), amended 35 U.S.C. § 103. The '444 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;

Reference(s)	Basis	Challenged Claims
Strub, Woo	§ 103	1–7, 9, 10, 13–15, 17–20, 22, 23, 27
Strub, Woo, Nagai, Gleissner	§ 103	12, 26
Strub, Woo, Samadani	§ 103	16, 24

II. ANALYSIS

A. 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,

therefore, we refer to the pre-AIA version of 35 U.S.C. § 103. *See* Pet. 13, 15, 17–19; Ex. 1001, codes (22), (63).

these inquiries may have relevancy."[2] *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 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

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

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.").

B. Level of Ordinary Skill in the Art

Petitioner argues that at the time of the '444 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. However, additional years of education in the above-referenced fields may compensate for fewer years of experience." Pet. 3 (citing Ex. 1002 ¶ 38). 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. 12–13 (citing Ex. 2017 ¶ 15; Ex. 2019 ¶ 11).

Based on the record presented, including our review of the '444 patent and the types of problems and solutions described in the '444 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. *See, e.g.*, Ex. 1001, col. 1, l. 40–col. 2, l. 21 (stating in the "Background of Invention" section of the '444 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).

C. 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. 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." Pet. 13. In its Preliminary Reply, Petitioner "does not present claim constructions as the elements are taught even under [Patent Owner's] constructions." Prelim. Reply 1. Patent Owner proposes interpretations for several terms, two of which we address below. *See* Prelim. Resp. 15–24.

1. "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. 19–22. Petitioner does not provide proposed interpretations for the terms in its Petition or Preliminary Reply.[3] *See* Pet. 13; Prelim. Reply 1. In two of the Lectrosonics IPRs, the Board, applying the broadest reasonable interpretation (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

[3] 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.

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.* Patent Owner's proposed interpretation of "master timecode generator" is very similar to the one previously adopted by the Board.

We agree with Patent Owner that the "master timecode generator" produces a signal that "controls" another timecode generator. *See* Prelim. Resp. 19 (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 6 of the '444 patent where "the master timecode generator creates master timecodes that are used to control the speed of the local timecode generator to ensure the two timecode generators are synchronized." *See* Prelim. Resp. 19–20 (citing Ex. 1001, col. 17, ll. 9–16, Fig. 6). But Figure 6 merely depicts an exemplary "process for recording audio and for replaying and re-recording segments of missed audio in accordance with one embodiment of the present invention." *See* Ex. 1001, col. 3, ll. 15–17. Further, 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. 9–17. 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.

Based on the record presented, 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."

2. Other Limitations

Patent Owner also proposes construing "locally generated audio," as recited in claims 1 and 13 (Prelim. Resp. 15–17); "local audio device wearable by a creator of said locally generated audio," as recited in claims 1 and 13 (*id.* at 17–19); "body pack," as recited in claims 2, 3, 14, and 15 (*id.* at 22–23); and "multi-track recorder," as recited in claims 6 and 19 (*id.* at 23–24). As discussed below, *infra* Section II.D.3.b, because we determine that Petitioner has not demonstrated a reasonable likelihood of establishing that the combination of Strub and Woo teaches or suggests "a remote receiver, the remote receiver configured to create at least one master timecode and to receive audio data," as recited in claims 1 and 13, we need not construe the remainder of the limitations. Accordingly, we do not construe these terms because it is not necessary at this time. *See Nidec*, 868 F.3d at 1017.

D. Ground 1: Obviousness Based on Strub and Woo

Petitioner contends that claims 1–7, 9, 10, 13–15, 17–20, 22, 23, and 27 are unpatentable over Strub and Woo under 35 U.S.C. § 103(a), citing the testimony of Chris Kyriakakis, Ph.D., as support. Pet. 22–72 (citing Ex. 1002). Patent Owner responds. Prelim. Resp. 26–60. We are not persuaded that Petitioner has established a reasonable likelihood of prevailing on its asserted ground as to any of the challenged claims. *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.

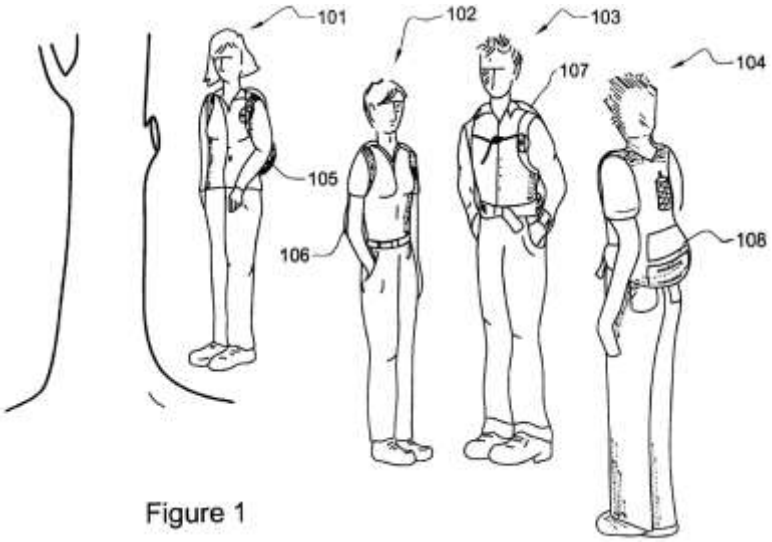

Figure 1

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.

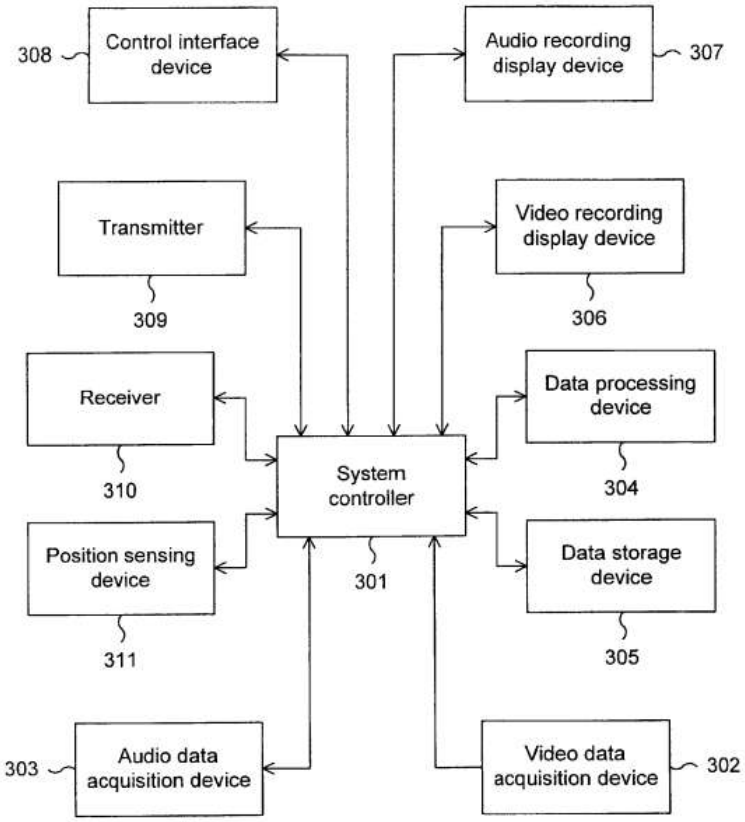

Figure 3 depicts the components of recording unit 300, including system controller 301, audio data acquisition device 303, data storage device 305, and transmitter 309. Ex. 1003, col. 11, l. 57–col. 12, l. 52. "[T]ransmitter 309 transmits signals . . . representing recording data acquired by the recording 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.

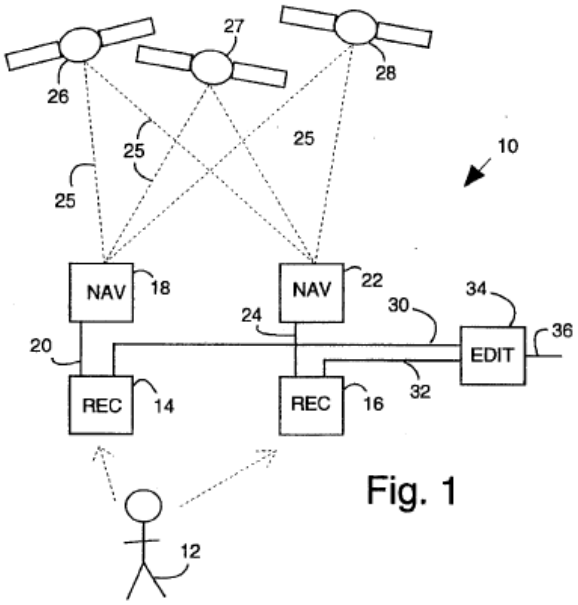

Fig. 1

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.

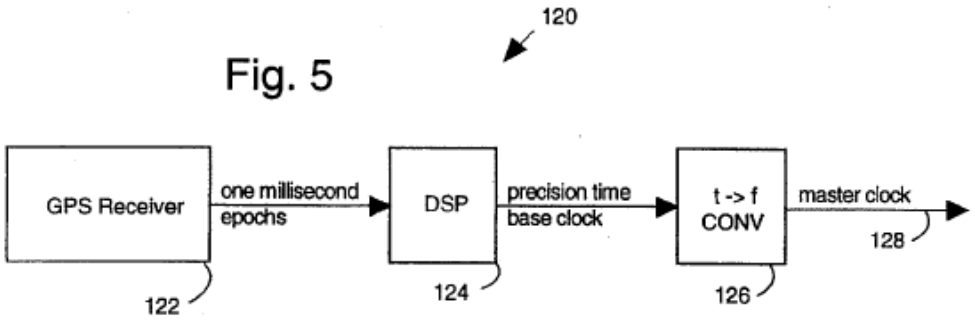

Figure 5 depicts master clock 120 comprising "GPS navigation satellite receiver 122 and . . . digital signal processor 124 for accumulating and averaging code epochs which occur each millisecond in time and having a precision time-base output," and time-period-to-frequency converter 126 with "precision 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. Claim 1

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 and Woo, 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. 9–13 (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 contesting the

finding from the Lectrosonics IPRs that Patent Owner's purported objective indicia of nonobviousness had no nexus with claims lacking the "dropout repair" feature in this proceeding for similar reasons. Pet. 13.

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. 13–15 (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* [s]tandard, 'collateral estoppel . . . is not appropriate.'" *Id.* at 13–14 (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 record presented. Although the Lectrosonics IPRs involved patents from the same family as the '444 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.

b) Obviousness

Petitioner argues that Strub and Woo collectively teach all of the limitations of claim 1. Pet. 25–56. We focus on limitation 1[A], which is dispositive. Limitation 1[A] recites "a remote receiver, the remote receiver configured to create at least one master timecode and to receive audio data." Limitation 1[A] thus imposes two requirements for the remote receiver: (1) the remote receiver must be configured to create at least one master timecode, and (2) the remote receiver must be configured to receive audio data.

Petitioner argues that Strub teaches recording units 105–108 "transmit[ting] locally generated audio data to other different recording units, each of the other units thus comprising a remote receiver for receiving audio data." Pet. 33 (citing Ex. 1003, col. 8, ll. 10–29, 50–53, col. 12, ll. 31–43, col. 25, ll. 35–49, col. 35, l. 54–col. 36, l. 9, col. 37, ll. 18–40, Figs. 1–3). Petitioner argues that Strub teaches that each recording unit includes a clock that can be used to generate timestamps, which may be used to synchronize the recordings made by each recording unit if the timestamps are adequately synchronized. Prelim. Reply 1 (citing Ex. 1003, col. 13, ll. 52–58, col. 79, l. 63–col. 80, l. 2). Petitioner argues that Strub identifies a potential problem in that "the 'clocks of different recording units may not be adequately synchronized to enable use of the time-stamps associated with the recordings obtained from different recording units to synchronize those recordings.'" *Id.* (citing Ex. 1003, col. 79, l. 63–col. 80, l. 2). Petitioner

argues that Strub offers a solution to this problem, teaching that a "master recording unit" may transmit synchronization pulses to other recording units to provide such synchronization. *Id.* at 1–2 (citing Ex. 1003, col. 38, ll. 29–37); *see also* Pet. 34 (citing Ex. 1003, col. 38, ll. 29–39).

Petitioner argues that an ordinarily skilled artisan would have considered it obvious for Strub's recording unit that receives audio to be the one to generate the synchronization pulses. Pet. 34. Petitioner argues that an ordinarily skilled artisan would have recognized the desirability and practicality of having the remote receiver generate master timecodes for all of the units so that the received audio is synchronized to its own clock or time reference. *Id.* Petitioner argues that, at a minimum, it would have been obvious to try using the remote receiver, rather than the other recording units, as the master timecode generator, because there are a limited number of choices. *Id.* at 34–35.

In summary, Petitioner argues the synchronization pulses from the recording unit acting as a "master" (the claimed "remote receiver") comprise a master time reference signal that controls at least one of the clocks in the other recording units (other timecode generators) and this serves to synchronize the other recording units that transmit their audio to the "master" recording unit. Prelim. Reply 2. Petitioner argues these synchronization pulses therefore comprise "master timecodes," even under Patent Owner's proposed construction of the term. *Id.*

Patent Owner argues Strub does not teach or suggest limitation 1[A]. Prelim. Resp. 35–39; Prelim. Sur-Reply 1–3. In particular, Patent Owner argues Petitioner relies on a master recording unit that transmits a synchronization pulse to the other recording units, but this synchronization

pulse only applies to "visual recording data," not audio data. Prelim. Resp. 36 (citing Ex. 1003, col. 38, ll. 29–39). Patent Owner argues the cited portion of Strub discusses temporally synchronizing "visual recording data," which can be done by transmitting a synchronization pulse from a master recording unit to other recording units, which Strub indicates is referred to as "genlocking." *Id.*

Patent Owner cites the testimony of James M. DeFilippis, P.E., who states genlocking is a video synchronization technique that does not apply to or affect the synchronization of system clocks or audio timestamps. Prelim. Resp. 37 (citing Ex. 2017 ¶ 59). Mr. DeFilippis further states genlocking is used exclusively in the video domain and has no bearing on audio synchronization. *Id.* (citing Ex. 2017 ¶ 59). Patent Owner argues that genlock signals merely align the refresh rate of image capture across cameras and do not provide a time reference signal to synchronize audio data. *Id.* Patent Owner argues Petitioner provides no explanation as to why a video synchronization scheme would be incorporated for the manipulation of audio data, as required by limitation 1[A]. *Id.*

We agree with Patent Owner that Petitioner has not sufficiently shown that Strub teaches or suggests limitation 1[A]. Petitioner relies on Strub's disclosure of a "master" recording unit as the claimed "remote receiver." Pet. 34 (citing Ex. 1003, col. 38, ll. 29–39). The cited portion of Strub is reproduced below:

> Data other than recording data can also be exchanged between recording units. For example, it may be desirable to coordinate the recordings obtained by recording units so that frames of visual recording data obtained by different recording units are temporally synchronized (e.g., so that a frame begins at the same time for each recording unit). This can be done by transmitting

> a synchronization pulse from a "master" recording unit to each of the other recording units ("slave" recording units). (Synchronizing analog visual data acquisition devices in this way is referred to as "genlocking.")

Ex. 1003, col. 38, ll. 29–39. As argued by Patent Owner (*see* Prelim. Resp. 36), the cited procedure involves synchronizing frames of visual recording data, not audio recording data. Petitioner has not disputed Patent Owner's assertions that the described "genlocking" technique is a video synchronization technique that does not apply to or affect the synchronization of system clocks or audio timestamps and has no bearing on audio synchronization. Nor does Petitioner explain in the Petition or the Preliminary Reply how or why an ordinarily skilled artisan would have applied this teaching to audio data recorded by an audio device.

Petitioner cites this visual recording data synchronization passage as a solution to a problem that Strub identifies in clocks not being adequately synchronized to enable use of time-stamps associated with recordings to be used to synchronize the recordings. *See* Prelim. Reply 1–2 (citing Ex. 1003, col. 38, ll. 29–37, col. 79, l. 63–col. 80, l. 2). However, immediately following the cited portion that identifies this problem, Strub further explains that "[i]f recording units according to the invention each include a GPS receiver, such mis-synchronization will only exist to an appreciable degree if one or more recording units are shielded from a GPS transmitter system for an extended period of time, e.g., several hours." Ex. 1003, col. 80, ll. 2–27. Thus, Strub suggests that the solution to this problem is for the recording units to receive their timecodes not from a master recording

unit, as argued by Petitioner, but from a GPS satellite.[4] Petitioner does not address this teaching.

Petitioner also argues in the alternative that Strub teaches the remote recording unit, which Petitioner maps to the "remote receiver," can create master timecodes with a position sensing device comprising a GPS receiver that uses the current time as received from GPS satellites. Pet. 35 (citing Ex. 1003, Fig. 3, col. 12, ll. 4–10, col. 62, ll. 53–55, col. 63, ll. 41–60). Petitioner argues the remote recording unit can also be a camcorder having an SMPTE time code input. *Id.* (citing Ex. 1003, code (57), col. 5, ll. 23–29, col. 75, ll. 7–57). Petitioner argues that an ordinarily skilled artisan would have been motivated to include the GPS receiver and/or SMPTE receiver/input in just one of the recording units and have that recording unit create and send the master timecodes to the other recording units to reduce cost and complexity. *Id.* (citing Ex. 1002 ¶ 113). Petitioner's alternative theory is not sufficient to show a reasonable likelihood of establishing that Strub teaches or suggests limitation 1[A]. First, this alternative theory does not address how or why an ordinarily skilled artisan would have applied the

[4] In IPR2025-00230 and IPR2025-00232, the Board determined that Petitioner has shown a reasonable likelihood of establishing that the combination of Strub and Woo taught a "master timecode generator" that created "master timecodes." *RØDE Microphones, LLC v. Zaxcom, Inc.*, IPR2025-00230, Paper 14, 35–38, IPR2025-00232, Paper 14, 45–49. However, in each of those cases, the Board determined that Petitioner had made a sufficient showing that Woo teaches this limitation, relying on Woo's GPS satellites providing a GPS time signal to audio receivers. *Id.* Our determination here is consistent with these determinations because Petitioner in this case relies on Strub's recording unit, not Woo's GPS satellite or Strub's GPS satellite, as teaching a "remote receiver configured to create at least one master timecode and to receive audio data."

described video synchronization procedure to audio recording data, as discussed above. Second, Petitioner does not address the teachings of Strub that suggest that each recording unit includes its own GPS receiver and thus these recording units are capable of synchronizing their recordings by receiving time signals from the same source. Petitioner has not adequately explained how or why an ordinarily skilled artisan would modify Strub's recording units in light of these teachings. Again, limitation 1[A] requires that the remote receiver be configured to create at least one master timecode *and* receive audio data. Petitioner's explanation as to how Strub allegedly teaches or suggests a device configured to do both is insufficient.

In the Preliminary Reply, Petitioner also argues for the first time that Strub's teachings are "consistent with and reinforced by the Woo reference." Prelim. Reply 2. Petitioner argues that Woo teaches a slave timecode generator can be synchronized to a master timecode generator using a "jam-sync" process that forces a slave timecode generator to follow the timecodes from the master timecode generator. *Id.* at 2–3 (citing Ex. 1004, col. 3, ll. 37–45, col. 8, l. 60–col. 9, l. 4).

Patent Owner argues that the Petition relies only on Strub, not Woo, as teaching the claimed "remote receiver." Prelim. Resp. 32–34. Patent Owner argues that the only references to Woo in the Petition regarding limitation 1[A] (and limitation 13[A]) are in reference to the Lectrosonics IPRs, for which collateral estoppel does not apply and which Petitioner may not incorporate by reference. *Id.* Patent Owner also argues that the Board in the Lectrosonics IPRs decided that the "master timecode generator" limitation of those challenged claims was disclosed by Woo, but those challenged claims did not include a requirement that the master timecode

generator "receive audio data" as required in limitation 1[A]. *Id.* at 34 (citing Ex. 1017, 28). Patent Owner argues that although Woo's GPS navigation satellite receiver and digital signal processor may be a "master timecode generator," Woo does not teach the GPS navigation satellite receiver or GPS digital signal processor receiving audio data. *Id.* at 35.

We agree with Patent Owner that the Petition does not rely on Woo as teaching or suggesting limitation 1[A]; Petitioner relies solely on the teachings of Strub. *See* Pet. 33–35 (arguing that "Strub teaches this element"). Petitioner references Strub's teachings as being "consistent with and reinforced by the Woo reference" in the Preliminary Reply (Prelim. Reply 2), but this is not sufficient to rely on Woo, alone or in combination with Strub, as teaching this limitation. We also agree that the Lectrosonics IPRs' findings regarding Woo teaching the "master timecode generator" limitation recited in those challenged claims are inapplicable here, where claim 1 recites additional limitations not present in those challenged claims. *Compare* Ex. 1001, col. 43, ll. 26–27 (claim 1 of the '444 patent: "a remote receiver, the remote receiver configured to create at least one master timecode and to receive audio data") *with* Ex. 1028, col. 23, ll. 20–21 (claim 1 of the '814 patent: "at least one master timecode generator for generating a plurality of master timecodes") *and* Ex. 1030, col. 23, ll. 38–39 (claim 1 of the '902 patent: "at least one master timecode generator for generating a plurality of master timecodes").

Based on the record before us, Petitioner has not shown sufficiently that Strub teaches or suggests "a remote receiver, the remote receiver configured to create at least one master timecode and to receive audio data," as recited in claim 1. Accordingly, Petitioner has not shown a reasonable

likelihood of prevailing on its assertion that claim 1 is unpatentable over Strub and Woo.

4. Claims 2–7, 9, 10, 13–15, 17–20, 22, 23, and 27

Similar to claim 1, claim 13 also recites "a remote receiver, the remote receiver configured to create at least one master timecode and to receive audio data" (limitation 13[A]). Ex. 1001, col. 44, ll. 33–34. Petitioner argues limitation 13[A] together with limitation 1[A]. Pet. 66. We determine that Petitioner has not made a sufficient showing for the reasons explained above. *See supra* Section II.D.3.b. Accordingly, Petitioner has not shown a reasonable likelihood of prevailing on its assertion that claims 2–7, 9, 10, 13–15, 17–20, 22, 23, and 27 are unpatentable over Strub and Woo.

E. Grounds 2 and 3

Petitioner relies on the combination of Strub, Woo, Nagai, and Gleissner to present a challenge of obviousness for claims 12 and 26. Pet. 74–78 (Ground 2). Petitioner relies on the combination of Strub, Woo, and Samadani to present a challenge of obviousness for claims 16 and 24. *Id.* at 78–82 (Ground 3). Petitioner does not discuss Nagai, Gleissner, or Samadani in its analysis of limitations 1[A] and 13[A], relying on the additionally cited references only for limitations present in the challenged dependent claims that do not relate to the remote receiver limitation. Accordingly, for the reasons explained above, Petitioner has not shown a reasonable likelihood of prevailing on its assertion that claims 12 and 24 are unpatentable over Strub, Woo, Nagai, and Gleissner or that claims 16 and 24

are unpatentable over Strub, Woo, and Samadani. *See supra* Section II.D.3.b.

III. CONCLUSION

Based on the arguments and evidence presented by the parties, we conclude that Petitioner has not demonstrated a reasonable likelihood of prevailing with respect to at least one claim of the '444 patent challenged in the Petition. Therefore, we do not institute an *inter partes* review.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is denied and no *inter partes* review is instituted.

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