

APPENDIX

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APPENDIX A

NOTE: This disposition is nonprecedential.

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

**2017-1748, 2017-1750, 2017-1805,
2017-1806, 2017-1824**

[Filed May 7, 2018]

ADVANCED AUDIO DEVICES, LLC,)
Appellant)
)
v.)
)
HTC CORPORATION, HTC AMERICA, INC.,)
Appellees)
)

Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Nos. IPR2014-01154, IPR2014-01155, IPR2014-01156, IPR2014-01157, IPR2014-01158.

JUDGMENT

JOHN STEVEN PANIAGUAS, Clark Hill PLC, Chicago, IL, argued for appellant. Also represented by JAMES R. FOLEY, TIMOTHY M. MCCARTHY; ROBERT GREENSPOON, Flachsbart & Greenspoon, LLC, Chicago, IL.

MATTHEW COOKBERNSTEIN, Perkins Coie, LLP, San Diego, CA, argued for appellees. Also represented by EVAN SKINNER DAY; DAN L. BAGATELL, Hanover, NH.

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THIS CAUSE having been heard and considered, it is
ORDERED and ADJUDGED:

PER CURIAM (O'MALLEY, LINN, and HUGHES, *Circuit
Judges*).

AFFIRMED. See Fed. Cir. R. 36.

ENTERED BY ORDER OF THE COURT

May 7, 2018
Date

/s/ Peter R. Marksteiner
Peter R. Marksteiner
Clerk of Court

APPENDIX B

Trials@uspto.gov
571-272-7822

Paper 40
Date: December 29, 2015

**UNITED STATES PATENT AND TRADEMARK
OFFICE**

**BEFORE THE PATENT TRIAL AND APPEAL
BOARD**

**Case IPR2014-01154
Patent 6,587,403 B1**

[Filed December 29, 2015]

HTC CORPORATION and HTC AMERICA, INC.,)
Petitioner,)
)
v.)
)
ADVANCED AUDIO DEVICES, LLC,)
Patent Owner.)
_____)

Before SCOTT A. DANIELS, CHRISTOPHER L.
CRUMBLY, and GEORGIANNA W. BRADEN,
Administrative Patent Judges.

CRUMBLY, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
35 U.S.C. § 318 and 37 C.F.R. § 42.73

I. INTRODUCTION

In this *inter partes* review trial, instituted pursuant to 35 U.S.C. § 314, Petitioner HTC Corporation and HTC America, Inc. (collectively, “HTC”) challenges the patentability of claims 1, 3, 6, 7, 11, 12, 16, 22, 24, 27, 29, 30, 35–37, 43 and 45–47 of U.S. Patent No. 6,587,403 (Ex. 1001, “the ’403 patent”), owned by Advanced Audio Devices, LLC (“AAD”).

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision, issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73, addresses issues and arguments raised during trial. For the reasons discussed below, we determine that HTC has met its burden to prove, by a preponderance of the evidence, that claims 1, 3, 6, 7, 11, 12, 16, 22, 24, 27, 29, 30, 35, 36, 37, 43, and 45–47 of the ’403 patent are *unpatentable*. We also determine that AAD has not met its burden on its Motion to Amend regarding entry of proposed substitute claims 49–65, and thus, we *deny* the Motion to Amend.

A. Procedural History

On July 11, 2014, HTC filed a Petition requesting *inter partes* review of claims 1, 3, 6, 7, 11, 12, 16, 22, 24, 27, 29, 30, 35, 36, 37, 43, and 45–47 of the ’403 patent. Paper 1, “Pet.” AAD filed a Patent Owner’s Preliminary Response. Paper 7. In a December 30, 2014, Decision on Institution of *Inter Partes* Review (Paper 6, “Dec.”), we instituted trial on claims 1, 3, 6, 7, 11, 12, 16, 22, 24, 27, 29, 30, 35, 36, 37, 43, and 45–47 based on the following grounds:

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1. Whether claims 1, 6, 7, 22, 29, 30, 43, and 45–47 are unpatentable under 35 U.S.C. § 102 as anticipated by Nathan '259;¹
2. Whether claims 1, 6, 7, 22, 27, 29, 30, 35, 43, and 45–47 are unpatentable under 35 U.S.C. § 103 as having been obvious over the combined disclosures of Nathan '259 and Nathan '255;² and
3. Whether claims 1, 3, 6, 7, 11, 12, 16, 22, 24, 30, 35–37, 43, and 45–47 are unpatentable under 35 U.S.C. § 103 as having been obvious over the combined disclosures of Sound Blaster,³ Lucente,⁴ and Ozawa.⁵

Dec. 22.

Following institution, AAD filed a Patent Owner's Response to the Petition (Paper 13, "PO Resp."), and HTC filed a Reply (Paper 21, "Pet. Reply"). AAD also filed a contingent Motion to Amend pursuant to 37 C.F.R. § 42.121 (Paper 14, "Mot. Amend"), to which

¹ Ex. 1002, WO 96/12259 to Nathan et al. (Apr. 25, 1996).

² Ex. 1003, WO 96/12255 to Nathan et al. (Apr. 25, 1996).

³ Ex. 1004, Exhibit B, Sound Blaster 16 User Reference Manual. With Sound Blaster, HTC submits the Declaration of Kyle A. Miller, which states that Sound Blaster was publicly available "no later than the early spring of 1995." Ex. 1004 ¶ 13.

⁴ Ex. 1005, EP 0598547 A2 to Lucente et al. (May 25, 1994).

⁵ Ex. 1006, US 5,870,710 to Ozawa et al. (filed Jan. 22, 1997).

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HTC filed an Opposition (Paper 22, “Amend Opp.”), and AAD filed a Reply (Paper 25, “Amend Reply”).

HTC supported its Petition with the Declaration of Christopher Schmandt (Ex. 1007), and submitted a Rebuttal Declaration of Mr. Schmandt (Ex. 1010) with its Reply. HTC submitted a third Schmandt Declaration in support of its Opposition to the Motion to Amend. Ex. 1023.

With its Patent Owner Response and Motion to Amend, AAD filed the Declaration of Joseph C. McAlexander III. Ex. 2003. AAD filed a Second Declaration of Mr. McAlexander supporting its Reply on its Motion to Amend. Ex. 2009. HTC took the cross-examination of Mr. McAlexander via deposition. Ex. 1016. AAD also submitted the testimony of Peter J. Keller, a named inventor on the ’403 patent. Ex. 2004.⁶

AAD filed a Motion to Exclude Exhibit 1004 (Paper 27, “Mot. Exclude”), to which HTC filed an Opposition (Paper 29, “Exclude Opp.”) and AAD filed a Reply (Paper 32, “Exclude Reply”).

Oral hearing was requested by both parties, and a consolidated oral hearing involving this trial and related trials IPR2014-01155, IPR2014-01156, IPR2014-01157, and IPR2014-01158 was held on September 17, 2015. A transcript of the oral hearing is included in the record. Paper 39, “Tr.”

⁶ Exhibit 2004 was the subject of a Motion to Seal (Paper 15), which was granted. Paper 30. A public, redacted version of Exhibit 2004 was also filed by AAD under the same exhibit number.

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B. The '403 Patent

The '403 patent discloses an audio recording device that the specification terms a “music jukebox.” Ex. 1001, 1:11–12. According to the specification, existing recording devices permitted music to be recorded onto a compact disc in real time, but did not provide editing functions, the ability to store music on the recorder for making multiple copies of the disc, or the ability to customize easily the order in which tracks are recorded onto the disc. *Id.* at 2:24–58. The described music jukebox is said to address these issues, as well as permit a user to “audition” a stored audio track by listening to it before recording onto a compact disc. *Id.* at 3:19–38.

Various hardware components of the jukebox are described in the specification, including: audio inputs for receiving music in the form of analog signals (*id.* at 7:53–60); one or more data storage structures for storing and retrieving audio stored in digital form (*id.* at 9:15–23); and a drive for recording stored audio onto compact discs (*id.* at 14:4–5). The audio data stored in the memory permits audio tracks to be played back selectively, or “auditioned,” prior to recording. *Id.* at 4:35–44. The components of the music jukebox are contained in a housing having a display for providing information to a user, for example, through a graphical user interface. *Id.* at 4:51–5:11. The housing also comprises a plurality of push buttons for controlling operation of the device. *Id.* at 5:12–36.

The specification of the '403 patent describes the operation of the device as permitting a user to create “sessions,” which are groups of sound tracks selected from a master song list. *Id.* at 15:63–65, 17:6–14. A

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user also may reorder the songs within a session by selecting songs and moving them up or down within the session list. *Id.* at 16:37–47. The session then can be written to a compact disc. *Id.* at 15:60–63.

C. Illustrative Claims

Of the challenged claims, only claim 1 is independent; all other challenged claims depend, directly or indirectly, from claim 1. The independent claim reads as follows:

1. A music jukebox configured for storing a music library therein, said music jukebox comprising:

a housing;

an audio data receiver arranged to receive audio data from outside the housing;

audio output structure located at least partially within the housing for outputting audio signals;

data storage memory in the housing for storing audio data received from outside the housing through the audio data receiver,

said music jukebox including a user interface comprising

a display device located at least partially within the housing, said display device providing a display which is viewable from outside the housing,

and a plurality of manually operable function controllers on the housing,

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said music jukebox configured such that a music library of sound tracks is storable in digital form in the data storage memory as a result of audio data being received from outside the housing through the audio data receiver,

said music jukebox configured such that said music library is organizable into a master song list and at least one group of sound tracks wherein each group comprises at least one sound track []⁷ from the master song list,

wherein said music jukebox is configured such that indicia of said master song list and indicia of at least one group of sound tracks are displayable on said display,

wherein said music jukebox is configured such that said plurality of manually operable function controllers is useable to select a group of sound tracks stored in the data storage memory and operate the music jukebox such that said music jukebox outputs audio signals through said audio output structure.

Id. at 21:16–43 (line breaks and indentation added for readability).

In its Motion to Amend, AAD proposed substitute claims 49–65, of which claim 49 is independent and a substitute for claim 1, if found unpatentable. Mot. Amend 2. Claims 50–65 are proposed as substitutes for

⁷ The word “selected” was removed from claim 1 by a Certificate of Correction, entered Oct. 7, 2003. Ex. 1001.

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dependent claims 6, 7, 11, 12, 16, 22, 24, 29, 30, 35–37, 43, and 45–47, respectively. Proposed claim 49 reads as follows, with underlined material indicating language added to original claim 1:

49. A music jukebox configured for storing a music library therein, said music jukebox comprising:

a housing;

an audio data receiver arranged to receive audio data from outside the housing;

audio output structure located at least partially within the housing for outputting audio signals;

data storage memory in the housing for storing audio data received from outside the housing through the audio data receiver,

said music jukebox including a user interface comprising

a display device located at least partially within the housing, said display device providing a display which is viewable from outside the housing,

and a plurality of manually operable function controllers on the housing,

said music jukebox configured such that a music library of sound tracks is storable in digital form in the data storage memory as a result of audio data being received from outside the housing through the audio data receiver,

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said music jukebox configured such that said music library, after being stored, is organizable into a master song list and at least one group of sound tracks wherein each group comprises at least one sound track selected⁸ from the master song list,

wherein after the sound tracks are stored and organized, the order of the sound tracks in said group of sound tracks is customizable,

wherein said music jukebox is configured such that indicia of said master song list and indicia of at least one group of sound tracks are displayable on said display,

wherein said music jukebox is configured such that said plurality of manually operable function controllers is useable to select a group of sound tracks stored in the data storage memory and operate the music jukebox such that said music jukebox outputs audio signals through said audio output structure.

Mot. Amend 11–12.

II. DISCUSSION

A. Claim Construction

For purposes of our Decision to Institute, we analyzed each claim term in light of its broadest

⁸ AAD's proposed claim 49 includes the word "selected," notwithstanding the fact that the word was removed from claim 1 via a Certificate of Correction.

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reasonable interpretation, as understood by one of ordinary skill in the art and as consistent with the specification of the '403 patent. 37 C.F.R. § 42.100(b); see *In re Cuozzo Speed Techs., LLC*, 778 F.3d 1271, 1281–82 (Fed. Cir. 2015). In the Decision, we construed the terms *master song list*, *indicia of said master song list*, *manually operable function controllers*, and *organizable*. See Dec. 8–9. During the course of the trial, neither party asked us to modify our constructions of *master song list*, *indicia of said master song list*, or *manually operable function controllers*. We see no reason to alter the constructions of these claim terms as set forth in the Decision to Institute, and we incorporate our previous analysis for purposes of this Decision. Therefore, for the reasons set forth in the Decision to Institute, we interpret certain claim terms of the '393 patent as follows:

<i>master song list</i>	a list of sound tracks within a library
<i>indicia of said master song list</i>	visible information that identifies a master song list
<i>manually operable function controllers</i>	controls that can be operated by hand

Dec. 8–9.

In our Decision to Institute, we construed *organizable* as “put things into a particular arrangement by ordering or grouping.” *Id.* In its Response, AAD asks that we reconsider our earlier interpretation of *organizable*. PO Resp. 8–9.

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Specifically, AAD disputes our conclusion that the term could be met by either ordering or grouping, as opposed to requiring ordering. *Id.* According to AAD, the term should be construed “to mean that a user can rearrange or customize the order of sound tracks.” *Id.* at 9. To support this construction, AAD notes that our Decision cited two portions of the specification which refer to “rearranging the order” and “customiz[ing] the order” of sound tracks. *Id.*; see Dec. 9 (citing Ex. 1001, 13:11–12, 3:32–33).

AAD misunderstands our prior claim construction ruling. We cited the above-quoted portions of the specification to demonstrate that, when the ’403 patentee wished to refer to ordering sound tracks, the terms *rearranging* or *customizing* were used—as opposed to the term *organizable*. Dec. 9. By contrast, we noted that the specification of the ’403 patent does not use the word *organizable* outside the claims. *Id.* The claim language itself, therefore, is the best guide to the meaning of the term. As we noted in our Decision, claim 1 requires that the music library is “organizable *into* a master song list and at least one group of sound tracks.” Ex. 1001, 21:32–33 (emphasis added); Dec. 9. This usage implies that the user must be able to, at the very least, add songs from the music library *into* groups such as the master song list and the group of sound tracks. We note that AAD’s expert, Mr. McAlexander, agreed with our construction of the term, with a minor caveat discussed below. Ex. 1016, 31:6–32:16 (“The actual context of an arrangement ordering and grouping, I have no problem with that. I think they’re right.”). AAD’s proposed construction, which limits *organizable* to only the ordering of songs,

is not the broadest reasonable interpretation of the claim term.

AAD attempts to read further limitations into *organizable* that do not appear in our prior Decision. According to AAD, our Decision was based “on the assertion that downloaded songs not in the queue represent the master song list.” PO Resp. 28. In other words, AAD interprets our Decision to require that “the two groups are mutually exclusive groups of songs, i.e., the master song list, and the playback queue. As such, a song in the queue cannot also be resident in the master song list.” *Id.* at 30.

Whatever the source of AAD’s interpretation, it is not correct. Our Decision never construed *organizable* to require at least two mutually exclusive groups of sound tracks, nor do we discern any basis in the claims or the specification for such a construction.

For these reasons, we reaffirm our construction of *organizable*, with a slight modification. As correctly noted by Mr. McAlexander during his deposition, the claim term is an adjective, whereas the construction adopted in our Decision is a verb phrase. Ex. 1016, 31:6–32:16. We, therefore, modify our construction of *organizable* to be “capable of being put into a particular arrangement, by ordering or grouping.”

B. Patentability of Original Claims

We first address whether HTC has met its burden of proving by a preponderance of the evidence that the challenged original claims are unpatentable. We instituted trial on two related grounds, anticipation by Nathan ’259 and obviousness over the combination of Nathan ’259 and Nathan ’255, and will analyze these

grounds together before turning to the third instituted ground, obviousness over Sound Blaster, Lucente, and Ozawa.

1. *Alleged Anticipation of Claims 1, 6, 7, 22, 29, 30, 43, and 45–47 by Nathan ’259*

a. *Disclosures of the Nathan References*

The primary dispute between the parties on the Nathan references is over what the references actually disclose. According to HTC, the jukebox systems described in the Nathan systems permit purchase and download of songs from a remote server, into a master song list stored locally on the jukebox. Pet. 17–21. A user may then select songs from the master song list into a queue; after the songs are played, they are deleted from the queue, but not the local storage. *Id.* By contrast, AAD asserts that the jukeboxes of Nathan permit users to purchase the right to play a song only once; when the songs are downloaded, they are immediately added to the queue, then deleted from local storage immediately after they are played. PO Resp. 11–12. According to AAD, therefore, a user of the Nathan system has no control over the order of songs in the queue other than the order in which the songs were purchased. *Id.* at 22. Nor does Nathan, in AAD’s reading, provide any library distinct from the queue. *Id.* at 16 (“The queue is *not* a subset of an internal music library; the queue *is* the music library.”) (citing Ex. 2003 ¶ 62).

In our Decision to Institute, we determined that the record at that time did not support AAD’s interpretation of the Nathan references. Rather, we concluded that “it appears that Nathan ’259 discloses

deleting songs from the *queue* once they are played, not from the music library altogether.” Dec. 12 (citing Ex. 1002 ¶ 86 (“[w]hen the selection has been reproduced in its entirety, it is removed from the queue file”). We also determined that the record supported the conclusion that Nathan ’259 discloses a “new selection acquisition mode” (“NSAM”) for ordering and downloading new music onto the jukebox. Dec. 13; Ex. 1002 ¶¶ 64–73. A “selection graphics screen” then permits a user to add these newly acquired songs to a queue for playback. Ex. 1002 ¶ 74. We concluded that Nathan ’259 appeared to describe a master song list to which songs are added via the NSAM, as well as the ability to create a queue of songs selected from the master song list using the selection graphics screen. Dec. 13.

AAD’s Response contends that our interpretation of Nathan ’259 was in error (PO Resp. 11), and Mr. McAlexander testifies in support of AAD’s interpretation of the reference. Ex. 2003 ¶¶ 32–65. AAD raises several issues regarding the disclosure of Nathan ’259, which it contends are inconsistent with HTC’s interpretation of the reference.

First, AAD asks why, if songs are not deleted entirely from the device immediately following playback, Nathan ’259 does not disclose some sort of “delete” function so that users can clear songs from the memory. PO Resp. 11–12. HTC responds by noting that Nathan ’259, as a patent document, likely is focused on the novel aspects of the disclosed device as opposed to known functions such as deleting files. Pet. Reply 9–10.

Prior art references are evaluated according to what they would disclose to a person of ordinary skill in the

art. *See Sundance, Inc. v. DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1361 n.3 (Fed. Cir. 2008). As such, the fact that a reference is silent regarding a particular feature only signifies exclusion of that feature if a person of ordinary skill would understand silence to imply exclusion. AAD provides no compelling evidence this is the case with Nathan '259. Mr. McAlexander, AAD's expert, testifies that there is no disclosure of a delete function in Nathan '259, but does not state that he, or any other person of ordinary skill, would interpret this silence to imply that a delete function is excluded. Ex. 2003 ¶ 62. Furthermore, we note that Nathan '255 explicitly discloses a manual delete function for removing little-known titles. Ex. 1003 ¶ 7. We do not find the absence of an explicit "delete function" in Nathan '259 to imply that the Nathan jukebox does not have such a common and known function.

Second, AAD notes that Nathan '259 discloses a system having as little as 32 megabytes of RAM, and asks why such a small amount of memory is contemplated if a local music library is stored. PO Resp. 12–13. HTC responds by noting that the 32 megabyte capacity is a minimum, and Nathan '259 puts no upper limit on the number of songs that can be stored. Pet. Reply 10. Furthermore, HTC notes that Nathan '255 discloses that its device may store a "minimum of 350 to 400 titles." *Id.* (citing Ex. 1003 ¶ 7). We consider HTC's interpretation on this point to be persuasive, and do not understand the disclosure of a 32 megabyte minimum memory capacity to be inconsistent with our understanding of the Nathan references.

Third, AAD points out a passage in Nathan '259 that states that a button “allows validation of the selection or selections for initiating their introduction into the queue,” (Ex. 1002 ¶ 74) and argues that “validation” refers to purchase of a song. PO Resp. 15–16. Therefore, under AAD’s theory, purchase of a song results in immediate addition to the queue. *Id.* at 38. HTC contends that such an interpretation would render Nathan '259’s two modules redundant, as there would be no reason to have both a “new selections acquisition module” (“NSAM”) and a “selection graphics screen,” if songs are directly added from the NSAM to the queue. Pet. Reply 8. We agree with HTC, and additionally note that Nathan '259 uses the word “validate” in other contexts meaning “to confirm.” Ex. 1002 ¶ 75 (“validates his choice”), ¶ 114 (“validates the credit card”). We, therefore, interpret “validation of his the selection” in paragraph 74 of Nathan '259 to refer to confirming that a song will be added to the queue, rather than purchase of a song.

At oral argument, AAD discussed these issues, and asked several other questions regarding the disclosure of Nathan '259 which had not been raised previously in briefing. Tr. 53–54. Even if we were to consider such arguments properly raised,⁹ we do not find them persuasive. Based on our review of the Nathan references in light of the expert testimony, our interpretation of the Nathan disclosures has not changed.

⁹ “A party may . . . only present [at oral hearing] arguments relied upon in the papers previously submitted. No new evidence or arguments may be presented at the oral argument.” *Office Patent Trial Practice Guide*, 77 Fed. Reg. 48,756, 48,768 (Aug. 14, 2012).

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We find that Nathan '259 discloses a jukebox that permits the downloading of song tracks via its NSAM. Ex. 1002 ¶ 64, 73 (“The display of FIG. 9 allows the user to access the new selections acquisition mode in connection with the NSAM module. . . . Button (1038) allows ordering of the selection which is then downloaded according to the above described mode.”). A different “selection graphics screen” shows the songs that have been downloaded, permits the user to sort the songs according to different criteria, and gives the user the ability to add songs to a queue. *Id.* ¶ 74 (“Button (124) allows validation of the selection or selections for initiating their introduction into the queue or their immediate and successive performance if the queue is empty.”). Contrary to AAD’s argument, we see no reason to conclude that when a file is purchased and downloaded, it is immediately added to the queue, and deleted from local memory immediately after it is played. Nor do we find that the Nathan systems only permit the order of the queue to be determined by purchase order, as opposed to the order in which the songs are selected from the library of all downloaded songs.

b. Analysis of Anticipation by Nathan '259

Anticipation requires not only that all elements of a claim are disclosed within the four corners of a single prior art reference, but that the elements are “arranged as in the claim.” *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008). For the following reasons, we determine that Petitioner has not proven by a preponderance of the evidence that Nathan '259 teaches all elements of claim 1, and by extension, any of the challenged dependent claims.

Claim 1 requires, *inter alia*, “a housing” and “a display device located at least partially within the housing.” Furthermore, the claimed music jukebox must be configured “such that indicia of said master song list and indicia of at least one group of sound tracks are displayable on said display.”

In the Petition, HTC identifies an LCD display disclosed in Nathan ’259, which is located in the jukebox’s housing. Pet. 19–20. HTC also identifies the disclosure of Nathan’s “selection module,” which shows indicia of a master song list as well as the queue. Pet. Reply 12. Nathan ’259 teaches that the selection module displays a window containing “titles of selections in alphabetic order by song name,” and a button, which “allows validation of the selection or selections for initiating their introduction into the queue.” Ex. 1002 ¶ 74.

AAD argues, however, that HTC errs in linking the selection module of Nathan ’259 with the LCD display in the housing. According to AAD, the Nathan ’259 jukebox is designed to be connected to a television, and the graphics modules such as the selection module are displayed on the TV. PO Resp. 17–18. By contrast, AAD argues the LCD screen in the housing is intended to “allow minimum display in the case in which the user does not connect a TV screen.” Ex. 1002 ¶ 46. Furthermore, AAD notes that, according to Nathan ’259, the LCD screen “allows sequential access to a list in alphabetical order,” (citing Ex. 1002 ¶ 100) but does not disclose that the LCD screen can display *both* a master song list and at least one group of sound tracks, as required by claim 1. PO Resp. 39.

Upon review of the disclosure of Nathan '259 and the testimony of the parties' experts, we find that AAD's interpretation of the reference on this point is the correct one. Nathan '259 states that the object of the invention is to provide a device that can be connected to a television and used to display various windows-based selection modules. Ex. 1002 ¶¶ 1, 65, 74, Figs. 9, 10. The LCD screen, by contrast, is characterized as "minimum," and is only to be used in the event connection to a TV is unavailable. *Id.* ¶ 46. There is no indication in Nathan '259 that a "minimum display" could display the graphical, windows-based modules such as the selection graphics screen. To the contrary, the LCD screen is said to only permit alphabetical display of a list, and to allow access to that list only sequentially. *Id.* ¶ 100. There is insufficient evidence to conclude that the LCD screen permits display of "indicia of said master song list and indicia of at least one group of sound tracks," as required by claim 1. Furthermore, while the television screen described in Nathan is capable of such a display, it is not located "at least partially within the housing."

For these reasons, we find that HTC has not met its burden of showing that all elements of claim 1 are disclosed by Nathan '259, and therefore, we conclude that HTC has not proven that Nathan '259 anticipates the claim. By extension, dependent claims 6, 7, 22, 29, 30, 43, and 45–47, each of which incorporates the limitations of claim 1, also are not anticipated by Nathan '259.

2. *Alleged Obviousness of Claims 1, 6, 7, 22, 27, 29, 30, 35, 43, and 45–47 in View of Nathan '259 and Nathan '255*

The elements of an obviousness analysis under 35 U.S.C. § 103 were set forth by the Supreme Court as follows: “the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved.” *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). Furthermore, as a guard against hindsight reasoning, we must “withhold judgment on an obviousness challenge until [we] consider[] all relevant evidence, including that relating to the objective considerations” such as commercial success or long-felt need. *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1079 (Fed. Cir. 2012). While we may apply “an expansive and flexible approach” to the question of obviousness, and take the sequence of the *Graham* factors in a different order depending on the particular case, “the factors continue to define the inquiry that controls.” *KSR Int’l. Co. v. Teleflex Inc.*, 550 U.S. 398, 407, 415 (2007).

We note at the outset that AAD does not contest that a person of ordinary skill in the art would have combined the disclosures of Nathan '259 and Nathan '255. Tr. 80:16–24. Rather, AAD disputes HTC’s interpretation of the Nathan references, and whether a person of ordinary skill in the art would have understood them to disclose all elements of the challenged claims. PO Resp. 45. Upon review of HTC’s asserted reasons to combine the Nathan references (Pet. 31), Mr. Schmandt’s testimony on that point (Ex.

1007 ¶ 125), and the lack of challenge from AAD, we find that a person of ordinary skill would have had reason to combine the Nathan references in the manner asserted.

a. Independent Claim 1

The disclosure of Nathan '255 remedies the deficiency of Nathan '259 discussed above in the context of the anticipation ground; namely, that Nathan '259 does not disclose a housing containing a display capable of displaying “indicia of said master song list and indicia of at least one group of sound tracks.” As AAD recognizes, Nathan '255 discloses a touchscreen display for controlling the jukebox located within its housing. Ex. 1003 ¶ 24; PO Resp. 46. The touchscreen is a 14 inch “Intelli Touch” screen that “allows display of various selection data used by the customers.” Ex. 1003 ¶ 24. Mr. Schmandt, HTC’s expert and a founder of the MIT Media Lab with more than thirty years of experience in the media technology field, testifies that “[a] person skilled in the art would be motivated to implement the touch screen disclosed in Nathan 255 on the LCD screen . . . disclosed in Nathan 259, to allow more intuitive control of the jukebox.” Ex. 1007 ¶¶ 12, 13, 128. We, therefore, conclude that it would have been obvious to include the touchscreen of Nathan '255 in the housing of Nathan '259, to display the modules of Nathan '259 such as the selection graphics screen. *See* Ex. 1002 ¶ 74. The display in the housing would be capable of displaying indicia of said master song list and indicia of at least one group of sound tracks, as required by claim 1.

Regarding the remaining limitations of claim 1, we find that the Nathan references disclose a housing

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(“box,” Ex. 1002 ¶ 46); an audio data receiver (“telecommunications interface,” *id.* ¶ 3); an audio output structure (“stereo audio output,” *id.* ¶ 42); data storage memory (“RAM,” *id.* ¶ 51); and a plurality of manually operable function controllers (“a set of buttons,” *id.* ¶ 46). AAD does not contest these elements. Rather, AAD argues that the references do not disclose organizing a music library into a master song list and at least one group of sound tracks, as required by claim 1. PO Resp. 46–47. To support this argument, AAD relies on its interpretation of Nathan as permitting only “single-play” downloads of songs, with immediate introduction of downloaded songs into a queue that cannot be reorganized. *Id.*; *see id.* at 34–38. As discussed above, we do not find this interpretation of Nathan ’259’s disclosure to be the correct one.

Given our finding that Nathan ’259 discloses the ability to select songs to download to local storage, followed by the ability to select songs for introduction into a queue, we find that the disputed limitation of claim 1 is taught by the combination of the Nathan references. The songs downloaded into Nathan’s local memory constitute a “master song list,” and the selection of songs into a queue is “at least one group of sound tracks.” This grouping satisfies the broadest reasonable interpretation of *organizable*, as discussed above. *See supra*, Section II.A.

AAD also argues that the Nathan references do not disclose the ability to use the plurality of manually operable function controllers to select a group of sound tracks. PO Resp. 40–41, 47. As outlined above, however, we find that Nathan ’259 discloses buttons

that can be used to introduce songs into its queue. Ex. 1002 ¶¶ 46, 66, 74 (“Button (124) allows validation of the selection or selections for initiating their introduction into the queue.”). Alternatively, we find that Nathan ’255 discloses a touchscreen that may be used to “allow[] display of various selection data used by the customers.” Ex. 1003 ¶ 24. As argued by HTC, a “user selects the group of sound tracks just as the captain of a pickup football team selects the team by selecting individual players to form the team.” Pet. Reply 13; *see* Tr. 35:21–36:19.

For these reasons, we find that the combination of Nathan ’259 and Nathan ’255 teaches each limitation of claim 1.

b. Dependent Claims

AAD also contests the obviousness of dependent claims 6, 7, 22, 29, 30, 35, 43, and 45–47 over the combined Nathan references, but with respect to claims 22, 35, and 45–47, no argument is made other than AAD’s contention that not all elements of claim 1 are disclosed. PO Resp. 41, 47–48. For the reasons discussed above, the arguments regarding claim 1’s elements are unpersuasive, and find that the additional elements of these dependent claims are taught by the Nathan references as set forth in HTC’s Petition. Pet. 33–36.

AAD does argue that the additional elements of claims 6, 7, 29, 30 and 43 are not disclosed by Nathan ’259, and that this deficiency is not remedied by combination with Nathan ’255. *Id.* at 41–45, 47–48. With respect to claims 6 and 7, AAD’s arguments focus on whether Nathan ’259 satisfies the *organizable*

limitation of claim 1, which we rejected above. We find that the additional limitations of claim 6 (“at least one sound track . . . is organizable into at least one group of sound tracks”) and claim 7 (“at least one manually operable function controller capable of being operated to facilitate organizing at least one sound track into at least one group of sound tracks”) are met by Nathan ’259’s disclosure of introducing songs to its queue. Ex. 1002 ¶ 74.

Claim 29 requires the ability “to sort at least one of the sound tracks and the groups of sound tracks stored in said data storage memory according to indicia of said sound tracks and groups of sound tracks.” HTC argues that this is disclosed by Nathan ’259’s selection graphics screen, which displays songs stored locally and permits introduction into the queue. Pet. 25; Pet. Reply 13–14. We find that Nathan ’259 discloses that this screen contains “Window (121)” which “allows display of titles of selections in alphabetic order by song name.” Ex. 1002 ¶ 74. This meets claim 29’s requirement of the capability to sort “at least one of the sound tracks . . . stored in said data storage memory according to indicia of said sound tracks.”

Claim 30 requires the ability to “audition at least one sound track in said data storage memory.” In its Response, AAD argues that the term *audition* requires the ability to “accept, edit, or delete the song” after listening to all or part of it. PO Resp. 43–44. This interpretation, however, was contradicted by AAD’s counsel at oral argument:

JUDGE CRUMBLY: . . . Claim 30 recites auditioning at least one sound track, and you point out that . . . the specification at least says,

okay, you aud -- truly audition a recording, and it uses that in reference to listening to a sound track before the sound track is recorded onto a compact disk.

MR. FOLEY: Yes.

JUDGE CRUMBLEY: And so does that mean that “audition” requires recording to a compact disk?

MR. FOLEY: No. I wouldn’t interpret it that way at all. The device even says it could be used as a jukebox. . . .

JUDGE CRUMBLEY: Well, I guess my question is that -- does “audition” just merely mean playback? Does it mean --

MR. FOLEY: Yeah. I would argue that “audition” means, you know, you can play it.

Tr. 79:13–80:7.

HTC also notes that, in related District Court litigation, AAD argued that “audition” means “to review or listen to.” Pet. Reply 14 (citing Ex. 1011, 14; Ex. 1012, 7). We do not consider *audition* in claim 30 to mean anything more than the ability to listen to all or a portion of a sound track. As such, Nathan ’259 discloses this capability. Ex. 1002 ¶ 100 (“A ‘play’ button (1028) starts playback.”).

Finally, claim 43 requires an amplifier to be located in the housing. HTC directs our attention to Nathan ’259’s disclosure of a button (15) that allows the volume of connected headphones to be adjusted. Pet. 26 (citing Ex. 1002 ¶ 46). AAD’s expert, Mr. McAlexander,

testifies that while the use of an amplifier in such a situation is not “necessarily required,” “the volume of an audio output to headphones can typically be adjusted by means of an amplifier.” Ex. 2003 ¶ 61. Mr. Schmandt points out that Nathan ’255 also discloses that its jukebox has “integrated amplified loudspeakers,” necessarily requiring inclusion of an amplifier. Ex. 1007 ¶ 144. Based on this testimony, and our review of the references, we find that inclusion of an amplifier in the housing is taught or suggested by the combined disclosures of the Nathan references.

We, therefore, conclude that HTC has met its burden of showing that each element of challenged dependent claims 6, 7, 22, 27, 29, 30, 35, 43, and 45–47 is disclosed by the combination of Nathan ’259 and Nathan ’255. As discussed above, we also find that a person of ordinary skill in the art would have had reason to combine the Nathan references.

c. Objective Indicia of Nonobviousness

Factual inquiries for an obviousness determination include secondary considerations based on evaluation and crediting of objective evidence of nonobviousness. *See Graham*, 383 U.S. at 17. Notwithstanding what the teachings of the prior art would have suggested to one of ordinary skill in the art at the time of the invention, the totality of the evidence submitted, including objective evidence of nonobviousness, may lead to a conclusion that the challenged claims would not have been obvious to one of ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984). Secondary considerations may include any of the following: long-felt but unsolved needs, failure of others, unexpected results, commercial success,

copying, licensing, and praise. *See Graham*, 383 U.S. at 17; *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007).

To be relevant, evidence of nonobviousness must be commensurate in scope with the claimed invention. *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011) (citing *In re Tiffin*, 448 F.2d 791, 792 (CCPA 1971)); *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998). In that regard, in order to be accorded substantial weight, there must be a nexus between the merits of the claimed invention and the evidence of secondary considerations. *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995). “Nexus” is a legally and factually sufficient connection between the objective evidence and the claimed invention, such that the objective evidence should be considered in determining nonobviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). The burden of showing that there is a nexus lies with the patent owner. *Id.*; *see Paulsen*, 30 F.3d at 1482.

AAD argues that the “clear commercial success” of the invention claimed in the ’403 patent demonstrates its nonobviousness, notwithstanding the disclosures of the Nathan references. PO Resp 57–58. To demonstrate this alleged commercial success, AAD submits the testimony of Peter Keller, supported by a number of confidential licenses which are said to have generated more than \$10,000,000 of gross revenue. *Id.* at 58. Mr. Keller describes the “AAD Family of Patents,” which includes the ’403 patent, other related United States Patents, and foreign counterparts. Ex. 2004 ¶¶ 5, 8. Mr. Keller testifies that, for each licensee, he ensured that “at least one commercial product sold” was covered

by “at least one claim of at least one patent” of the family. *Id.* ¶ 11.

In cases in which the proffered evidence of commercial success is licenses, rather than sales of products embodying the invention, there is a danger that the licenses may have been taken only because they were cheaper than defending an infringement suit. *See EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 908 (Fed. Cir. 1985). In such situations, nexus between the commercial success and the patent cannot be inferred; rather, “affirmative evidence of nexus” is required. *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1324 (Fed. Cir. 2004). In other words, a patent owner must demonstrate “a nexus between the *merits of the invention* and the licenses of record”; otherwise, the licenses are to be accorded little weight. *In re GPAC Inc.*, 57 F.3d at 1580 (emphasis added).

HTC notes that each of the licenses listed by Mr. Keller includes at least two patents that explicitly claim a compact disc recorder, an element not present in the claims of the '403 patent. Pet. Reply 24. HTC also contends that AAD fails to demonstrate any link between the invention of the '403 patent and the taking of the license; for example, AAD provides no apportionment of revenues to show the amount attributable to the '403 patent, as opposed to the other members of the licensed family. *Id.*

We agree with HTC that the evidence provided by AAD does not establish a sufficient link between the merits of the invention claimed in the '403 patent and the taking of the licenses. Although Mr. Keller notes that some of the provided licenses were taken in

situations where there was no pending litigation against the licensee (Ex. 2004 ¶ 9), he does not address whether litigation had been *threatened* against those parties. We, therefore, cannot determine whether the licenses reflect the commercial value of the invention claimed in the '403 patent, or whether they were taken merely to avoid the cost of litigation, either pending or threatened. Absent a persuasive showing of nexus, AAD's evidence of licensing fails to establish commercial success.

We conclude that the evidence of objective indicia of nonobviousness is insufficient to overcome the evidence of obviousness over the combined Nathan references.

d. Conclusion on Obviousness

For the foregoing reasons, HTC has proven by a preponderance of the evidence that Nathan '255 and Nathan '259 teach all elements of challenged claims 1, 6, 7, 22, 27, 29, 30, 35, 43, and 45–47, and that a person of ordinary skill in the art would have had reason to combine the disclosures. Furthermore, we conclude that such a combination would have been within the level of ordinary skill in the art, as evidenced by the prior art of record. We, therefore, conclude that claims 1, 6, 7, 22, 27, 29, 30, 35, 43, and 45–47 would have been obvious at the time of the invention, and thus are unpatentable under 35 U.S.C. § 103.

3. Alleged Obviousness of Claims 1, 3, 6, 7, 11, 12, 16, 22, 24, 30, 35–37, 43, and 45–47 in View of Sound Blaster, Lucente, and Ozawa

We instituted trial to determine whether claims 1, 3, 6, 7, 11, 12, 16, 22, 24, 30, 35–37, 43, and 45–47 would have been obvious over the combined disclosures

of Sound Blaster, Lucente, and Ozawa, finding persuasive HTC's unchallenged analysis in its Petition of how the elements of the challenged claims are taught by the references. Dec. 16–17, 21. In so doing, we noted that AAD did not dispute the alleged disclosures of the references, but instead disputed that Sound Blaster qualified as prior art to the '403 patent, and argued that a person of ordinary skill in the art would have not combined the references. *Id.* at 17. In its Response, AAD again does not address the disclosures of the references, and instead argues that the references are not combinable because the combined teachings would produce an inoperable device. PO Resp. 48–57. According to AAD, to combine Sound Blaster with the teachings of Lucent would require a substantial reconstruction and redesign of the elements in Lucent. *Id.* at 46–47. Thus, AAD concludes that the combination of Sound Blaster and Lucent and any other prior art would not have rendered the challenged claims obvious. *Id.* at 49. In addition, AAD moved to exclude Exhibit 1004 (Miller Declaration, Miller CV, and the Sound Blaster reference). Mot. Exclude 1.

Sound Blaster discloses audio software with a graphical user interface designed for organizing and playing back audio files. Ex. 1004, 2-1.¹⁰ Sound Blaster also discloses the ability to group sound tracks into playlists. *Id.* at 2-20–2-28, Fig. 2-8.

¹⁰ HTC did not add page numbers to the Sound Blaster reference, as required by our Rules. *See* 37 C.F.R. § 42.63(d)(2)(i). We refer to the page numbers of the original Sound Blaster manual when citing the reference.

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Lucente discloses a “pen-based computer with an integral flat panel display and digitized screen.” Ex. 1005 1:3–4. The housing of Lucente includes an audio input and output, processor, and memory. *Id.* at 12:2–13; 7:39–49. According to HTC, the hardware of Lucente is capable of running the Sound Blaster software. Pet. 38.

Ozawa discloses a portable audio device that can download music from a network service center and save audio files to a hard drive in the device. Ex. 1006, 4:48–53. The Ozawa device has push-button controls on its face for controlling the operation of the device, such as playing and pausing music. *Id.* at 5:30–33.

At oral hearing, AAD’s counsel did not concede that Sound Blaster, Lucente, and Ozawa disclose all elements of the claims if combined, but acknowledged that AAD’s briefs had provided no argument on that point. Tr. 90–91. Specifically, AAD did not provide any evidence or testimony contrary to the evidence and testimony provided by Petitioner regarding the disclosures of Sound Blaster, Lucente, and Ozawa. Our Scheduling Order in this case cautioned AAD that “any arguments for patentability not raised in the [Patent Owner Response] will be deemed waived.” Paper 7, 3. The Board’s Trial Practice Guide, furthermore, states that the Patent Owner Response “should identify all the involved claims that are believed to be patentable *and state the basis for that belief.*” *Office Patent Trial Practice Guide*, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012) (emphasis added). As the Board has stated, our governing statute and Rules “clearly place some onus on the patent owner, once trial is instituted, to address the material facts raised by the petition as jeopardizing

patentability of the challenged claims.” *Johnson Health Tech Co. v. Icon Health & Fitness, Inc.*, Case IPR2013-00463, slip op. at 12 (PTAB Jan. 29, 2015) (Paper 41). By addressing only the combination of the references, AAD conveyed to the Board and HTC that the only bases for its belief that the challenged claims are patentable were (i) whether Sound Blaster and Lucente were combinable and (ii) whether Sound Blaster is admissible.

In our Decision to Institute, we concluded that HTC had made a threshold showing that Sound Blaster, Lucente, and Ozawa taught all the limitations of the challenged claims, sufficient for us to conclude that there was a reasonable likelihood that HTC would prevail in showing that the challenged claims were obvious over the combined references. Dec. 21–22. We must now determine whether the preponderance of the evidence of record supports a finding of obviousness. 35 U.S.C. § 316(e). Given AAD’s waiver of argument that the combination of references does not teach all elements of the challenged claims, the record now contains the same arguments and evidence on that point as it did at the time of our Decision to Institute. After careful consideration of the entire record, including the Petition, Patent Owner’s Response, and all evidence submitted by the parties, we find that the preponderance of the evidence of record supports a finding that HTC has set forth how all limitations of the challenged claims are taught by Sound Blaster, Lucente, and Ozawa. Pet. 42–58; Ex. 1007 ¶¶ 172–214 (Schmandt declaration including claim charts). We, therefore, turn to the two remaining issues on this ground of unpatentability: AAD’s Motion to Exclude Sound Blaster, and whether a person of ordinary skill

would have had reason to combine Sound Blaster, Lucente, and Ozawa.

a. Motion to Exclude Exhibit 1004

Exhibit 1004 contains two related documents: (1) the Declaration of Kyle A. Miller, attesting to the public availability of the Sound Blaster reference; and (2) the Sound Blaster reference itself. Mr. Miller testifies that Sound Blaster is a copy of a Sound Blaster 16 User Reference Manual he received during the course of his employment at Creative Labs, “no later than the early spring of 1995.” Ex. 1004 ¶ 19. According to Mr. Miller, his employer provided him with commercial versions of Creative Labs’ most popular products, including the Sound Blaster 16 Audio Card. *Id.* ¶ 12. Mr. Miller testifies that the product he received included the User’s Manual, and would have been the same documentation provided to a commercial purchaser of the product. *Id.* ¶ 14.

AAD moves to exclude Exhibit 1004 on several grounds. Mot. Exclude 1. Pursuant to our Rules, a motion to exclude evidence must be filed to preserve any previously-made objections to evidence. 37 C.F.R. § 42.64(c). The motion must identify where in the record the objections were made, and must explain the objections. *Id.*

We note that AAD does not identify where in the record its objections to evidence were made prior to their being the basis of the Motion to Exclude, in violation of Rule 42.64(c). Indeed, the Board is aware of AAD’s prior objections only because they were quoted in HTC’s opposition to the Motion to Exclude. For this

reason, AAD's Motion is procedurally deficient, and may be denied on this basis alone.

Even if we were to overlook the procedural deficiency of the motion itself, we would not exclude Exhibit 1004. First, AAD argues that the Miller Declaration is hearsay. Mot. Exclude 3–5. It does not appear that AAD previously made this objection, as required by our Rules. According to HTC, the only hearsay-based objection made by AAD was that Exhibit B (the Sound Blaster reference itself) did not satisfy the business records exception to the hearsay rule. Exclude Opp. 2. Furthermore, even if AAD had preserved such an objection, we do not consider the Miller Declaration to be hearsay, as it is not an out-of-court statement. In an *inter partes* review, direct testimony is typically provided via affidavit, with cross-examination taken via deposition. 37 C.F.R. § 42.53(a). In this respect, testimony via affidavit before the Board is distinguishable from the affidavits submitted in District Court cases cited by AAD, such as *Hilgraeve, Inc. v. Symantec Corp.*, 271 F. Supp. 2d 964 (E.D. Mich. 2003). See *Polaris Wireless, Inc. v. TruePosition, Inc.*, Case IPR2013-00323, slip op. at 41 (PTAB Nov. 3, 2014) (Paper 62).

Second, AAD objects to the copyright date on the Sound Blaster reference as hearsay. Mot. Exclude 5–7. Again, AAD has not established that it previously made such an objection, other than the general objection to “Exhibit B” as not being within the business records exception. This is insufficient to put HTC on notice that AAD was specifically objecting to the copyright date of the reference as hearsay. See 37 C.F.R. § 42.64(b)(1) (“The objection must identify the

grounds for the objection with sufficient particularity to allow correction in the form of supplemental evidence.”). In any event, we consider the exclusion of the copyright date to be moot, as we do not rely on the copyright date to reach our determination that Sound Blaster was publicly available. Mr. Miller’s testimony that Sound Blaster was publicly available rests on his personal recollection, and merely cites the copyright date as corroboration for that recollection. Ex. 1004, Miller Decl., ¶ 17.

Third, AAD contends that Sound Blaster is not within the business records exception to the hearsay rule. Mot. Exclude 8. While it does appear that AAD previously made this objection, the Motion does not cite to where in the record the objection was made, as required by our Rule 42.64(c). Nevertheless, the application of a hearsay exception is irrelevant, as Sound Blaster is not offered for a hearsay purpose. As a prior art reference, Sound Blaster is offered to show what information it would have conveyed to a person of ordinary skill in the art; the truth of the contents of Sound Blaster is not relevant to this inquiry. *See EMC Corp. v. Personal Web Techs., LLC*, Case IPR2013-00085, slip op. at 66 (PTAB May 15, 2014) (Paper 73) (“a prior art document submitted as a ‘printed publication’ under 35 U.S.C. § 102(b) is offered simply as evidence of what it described, not for proving the truth of the matters addressed in the document”); *see Joy Techs., Inc. v. Manbeck*, 751 F. Supp. 225, 233 n.2 (D.D.C. 1990), *aff’d*, 959 F.2d 226 (Fed. Cir. 1992)).

Finally, AAD seeks to exclude Sound Blaster as not authenticated, as there is no evidence to authenticate the reference “except the inadmissible Miller

Declaration.” Mot. Exclude 8. We have not found the Miller Declaration to be inadmissible, however. To authenticate an item of evidence, a party must “produce evidence sufficient to support a finding that the item is what the proponent claims it is.” Fed. R. Evid. 901(a). The Miller Declaration provides sufficient evidence to support the finding that Sound Blaster is what HTC contends it to be: a document distributed to the public with the commercially available version of the Sound Blaster 16 Audio Card.

For these reasons, even if AAD’s Motion to Exclude were procedurally proper, we would not exclude Exhibit 1004, including the Sound Blaster reference, from the record.

b. Combinability of References

HTC contends that a person of ordinary skill in the art would have had reason to combine Sound Blaster, Lucente, and Ozawa. Pet. 40. First, the references are said to pertain to personal computing devices with similar hardware, for similar purposes of reproducing audio. *Id.* In addition, HTC argues the devices of Lucente and Ozawa are directed to portable devices, and HTC asserts that a person of ordinary skill in the art would have combined the software of Sound Blaster with these devices to “improv[e] multimedia user experience.” *Id.* at 41.

To the contrary, AAD argues that combining Sound Blaster with Lucente would have been outside the level of ordinary skill at the time of the invention. PO Resp. 48–49. AAD first focuses on hardware incompatibilities between the tablet computer of Lucente and the software of Sound Blaster. *Id.* Citing the McAlexander

Declaration, AAD argues that “[t]he amount of skill required to make the Lucente device compatible with the Sound Blaster software would substantially exceed the level of ordinary skill.” *Id.* (citing Ex. 2003 ¶¶ 23–28). Mr. McAlexander testifies that modification of the Lucente computer to run Sound Blaster would include such drastic steps as “redesign of the battery and thermal management within the housing to provide the designed battery operating time while preventing overheating of the internal circuits” (Ex. 2003 ¶ 25) and redesign of the “entire interface structure of the Sound Blaster 16 audio card . . . from an ISA configuration to a different bus standard, including firmware re-write to conform to the different bus protocol” (*id.* ¶ 27).

Mr. McAlexander also testifies that the Sound Blaster software required a Windows 3.1 operating system, which allegedly was incompatible with the “pen-based computer” disclosed in Lucente. *Id.* ¶ 28. For example, Mr. McAlexander points out Lucente’s recitation of the ability to rotate the display to permit either right-handed or left-handed operation, and states that such a functionality was not provided in Windows 3.1. *Id.* ¶ 30.

In response, HTC argues that AAD focuses too heavily on the physical combinability of the devices disclosed in the references, as opposed to whether the teachings of the references would be combined. Pet. Reply 17–18. HTC submits the testimony of Mr. Schmandt, who testifies that a person of ordinary skill in the art would have recognized that the functionality of the Sound Blaster software (such as storing and managing audio files, including making playlists)

would provide similar benefits in a portable touchscreen computer, such as the one described in Lucente. Ex. 1007 ¶ 168. The disclosures of Sound Blaster and Lucente, according to Mr. Schmandt, would allow a person of ordinary skill in the art to construct a device as claimed in the '403 patent. Ex. 1010 ¶ 58. Mr. Schmandt also addresses Mr. McAlexander's opinion that a person of ordinary skill in the art would have been unable to combine the computer of Lucente with the software of Sound Blaster, and testifies that a person of ordinary skill would have both the ability and reason to combine the teachings of these references. *Id.* ¶¶ 60–71.

In our view, HTC's proposed analysis better comports with the "expansive and flexible approach" to obviousness set forth by the Supreme Court in *KSR*. "The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference." *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Our inquiry is, therefore, not "whether the references could be physically combined but whether the claimed inventions are rendered obvious by the teachings of the prior art as a whole." *In re Etter*, 756 F.2d 852, 859 (Fed. Cir. 1985) (en banc).

Based on the combination of references proposed by HTC, Mr. Schmandt testifies that a person of ordinary skill in the art would have recognized the advantages of Sound Blaster's *functionality*, and sought to incorporate those features into Lucente. Ex. 1007 ¶ 168 ("a person of ordinary skill in the art would be motivated to combine a system with the flexibility, portability, and ease of use of Lucente with the audio

management capabilities of Sound Blaster”); *id.* at ¶ 170 (“it would be obvious to design a system with physical (e.g. push-button) controls to carry out the various *functions* designed by Sound Blaster, particularly in view of Lucente and Ozawa”) (emphasis added). The record reflects that such a modification would not have been outside the level of ordinary skill, which both experts define similarly. Ex. 1007 ¶ 25 (Schmandt: at least a bachelor’s degree in electrical engineering, computer science, or equivalent, and 1–3 years of experience in designing and programming consumer electronic devices); Ex. 2003 ¶ 8 (McAlexander: bachelor’s degree in electrical engineering or computer engineering, and at least two years of experience in the design of audio systems). This level of skill is also reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). AAD’s focus on whether the Sound Blaster hardware sound card could be installed on the Lucente device, or whether the Sound Blaster software could run on Lucente’s operating system, ignores that a person of ordinary skill is a “person of ordinary creativity, not an automaton.” *KSR*, 550 U.S. at 421.

It would not have been outside the level of ordinary skill in the art, as defined by both experts, to modify the device of Lucente to have the functionality described in Sound Blaster—including grouping and ordering songs—as well as the ability to download songs as described in Ozawa. We, therefore, find that a person of ordinary skill in the art would have had reason to combine the disclosures of Sound Blaster, Lucente, and Ozawa, and would have had a reasonable expectation of success in doing so.

c. Objective Indicia of Nonobviousness

As discussed above, we have considered AAD's evidence of objective indicia of nonobviousness, but conclude that the evidence is insufficient to support a conclusion of nonobviousness.

d. Conclusion on Obviousness

For the foregoing reasons, HTC has proven by a preponderance of the evidence that Sound Blaster, Lucente, and Ozawa teach all elements of challenged claims 1, 3, 6, 7, 11, 12, 16, 22, 24, 30, 35–37, 43, and 45–47, and that a person of ordinary skill in the art would have had reason to combine the disclosures. Furthermore, we conclude that such a combination would have been within the level of ordinary skill in the art, as evidenced by the prior art of record. We, therefore, conclude that claims 1, 3, 6, 7, 11, 12, 16, 22, 24, 30, 35–37, 43, and 45–47 would have been obvious at the time of the invention, and thus are unpatentable under 35 U.S.C. § 103.

C. Patentability of Proposed Substitute Claims

In an *inter partes* review, amended claims are not added to the patent as of right, but rather must be proposed as a part of a motion to amend. 35 U.S.C. § 316(d). As moving party, the patent owner bears the burden of proof to establish that it is entitled to the relief requested—namely, addition of the proposed claims to the patent. 37 C.F.R. § 42.20(c). A patent owner must meet the requirements of 37 C.F.R. § 42.121, and demonstrate the patentability of the proposed substitute claims. *Idle Free Sys., Inc. v. Bergstrom, Inc.*, Case IPR2012-00027 (PTAB June 11, 2013) (Paper 26, “*Idle Free*”) (informative); *see also*

Microsoft Corp. v. Proxyconn, Inc., 789 F.3d 1292, 1308 (Fed. Cir. 2015) (“Assuming an amendment is appropriately responsive to the grounds of unpatentability involved in the trial, the patentee must still go on to show that it is entitled to its substitute claim.”)

AAD’s Motion to Amend proposes to substitute new claim 49 for claim 1, contingent on claim 1 being held unpatentable. Mot. Amend 2. As we have held claim 1 to be unpatentable, we consider the Motion to Amend.

Proposed claim 49 differs from claim 1 in two respects: (1) the proposed claim recites that the music library is organizable “after being stored”; and (2) after the sound tracks are stored and organized, the order of the sound tracks is customizable. *Id.* To provide written description support for these changes, AAD cites to the disclosure of US Patent Application No. 09/641,069 (Ex. 2006), filed August 17, 2000, which issued as the ’403 patent. *Id.* at 2–5. Therefore, even if we were to grant the Motion to Amend, the proposed substitute claims would only be entitled to a priority date of August 17, 2000. *See* 37 C.F.R. § 42.121(b) (“A motion to amend claims must . . . set forth: . . . (2) The support in an earlier-filed disclosure for each claim for which benefit of the filing date of the earlier filed disclosure is sought.”)

A motion to amend is also required to set forth a construction for any new terms introduced via amendment. *See Idle Free*, slip op. at 7. In particular, AAD introduces the term *customizable* to the claims. AAD does not proffer a construction of “customizable,” instead stating that the amendment “simply codifies the Board’s claim construction of the term

‘organizable.’” Mot. Amend 6. If, by this “codification,” AAD intended *customizable* to be synonymous with *organizable*, it is unclear how this is so. As discussed above, the broadest reasonable interpretation of *organizable* is “capable of being put into a particular arrangement, by ordering or grouping.” Proposed claim 49 includes the phrase “the order of the sound tracks is customizable.” From this usage, *customizable* appears to be used to refer to ordering, which is encompassed by, but not coextensive with, *organizable*. This construction, however, introduces confusion into the claim, as it is not clear what is meant by “after the sound tracks are stored and organized, the order of the sound tracks in said group of sound tracks is customizable” if *customizable* is synonymous with, or encompassed by, *organizable*.

AAD’s failure to set forth a clear claim construction for *customizable* could, on its own, be fatal to the Motion to Amend. Nevertheless, we will construe *customizable* as referring to ordering, and the amendment as referring to the ability to reorder sound tracks in a group (*customize*) after a first grouping or ordering operation (*organize*). Even adopting this construction, however, we would not grant the Motion to Amend, as AAD has not demonstrated patentability of claim 49 or any of the proposed dependent claims.

In a motion to amend, a patent owner has the burden “to show patentable distinction over the prior art of record and also prior art known to the patent owner.” *Idle Free*, slip op. at 7. We have held that “prior art of record” refers to material art in the prosecution history of the patent, material art of record in the current proceeding before the Board, and material art

of record in any other proceeding before the Office involving the patent. See *MasterImage 3D, Inc. v. RealD Inc.*, Case IPR2015-00040, slip op. at 2 (PTAB July 15, 2015) (Paper 42, “*MasterImage 3D*”). To that end, in its Motion, AAD discusses two references, Alexander and Timis, which were allegedly the “most pertinent references” cited during prosecution of the ’403 patent. Mot. Amend 8. AAD also discusses the Nathan references, which are of record in the current proceeding. *Id.* at 8–10.

AAD does not discuss, however, the patentability of claim 49 or the dependent claims over the Sound Blaster, Lucente, and Ozawa references of record in the current proceeding, other than to challenge the combinability of the references. *Id.* at 10. As discussed above, we are not persuaded by AAD’s arguments on this point, and conclude that a person of ordinary skill in the art would have combined the disclosures of the references.

Furthermore, as HTC correctly notes in its Opposition, the Sound Blaster reference discloses that a user may rearrange the songs in a playlist, after they are stored locally and grouped into the playlist. Amend Opp. 10 (citing Ex. 1004, 2–25; Ex. 1023 ¶¶ 12–14). By failing to address sufficiently this disclosure in its Motion, AAD has failed to demonstrate patentability of claim 49, or any of the proposed dependent claims, over the prior art of record.

Additionally, AAD’s Motion lacks sufficient discussion of the prior art known to AAD, beyond that already of record. The Board has stated that this requires “no more than the material prior art that Patent Owner makes of record in the current

proceeding pursuant to its duty of candor and good faith to the Office under 37 C.F.R. § 42.11.” *MasterImage 3D*, slip op. at 3. In considering this duty of candor and good faith, patent owners should emphasize the limitations added to the proposed claim. *Id.* AAD’s Motion fails to make any such prior art of record, even though it acknowledges that other patents in the same family as the ’403 patent “had hundreds of items of prior art cited against it.” Mot. Amend 9. AAD merely makes the statement that “[a]s far as Patent Owner knows, none of the features now being claimed were previously known or disclosed in any of the prior art of record, or in any other prior art known to Patent Owner.” *Id.* at 9–10.

AAD argues that “[t]here are almost 200 references made of record in the AAD patent family. AAD cannot be expected to discuss them all in its Motion.” Amend Reply 4. Even if the large number of prior art references cited in related applications may excuse AAD’s failure to discuss one or two material references, however, it does not excuse AAD from, at the very least, making a good faith attempt to determine whether any prior art known to it discloses the additional limitations introduced in the proposed amended claim. As discussed above, the earliest priority date supported by the Motion to Amend is August 17, 2000. AAD makes no effort, however, to discuss the state of the art as of that date, or provide any prior art references beyond those already of record that might be material to the added limitations. A generalized statement that “none of the features now being claimed were previously known or disclosed in any of the prior art of record, or in any other prior art known to Patent Owner” (Mot. Amend 9–10) is not

sufficient, on this record, to carry AAD's burden. *See Idle Free*, slip op. at 7 (“Some representation should be made about the specific technical disclosure of the closest prior art known to the patent owner, and not just a conclusory remark that no prior art known to the patent owner renders obvious the proposed substitute claims.”).

In addition, HTC cites several references from the prosecution of a related AAD patent, including the Logan,¹¹ Looney,¹² and Yankowski¹³ patents, and argues that they disclose the added limitations of proposed claim 49. Amend Opp. 14–15. In reply, AAD asserts only that “[n]one of [Logan, Looney, or Yankowski] discloses or suggests what is now being claimed, *as a whole*, in substitute claim 1.” Amend Reply 5 (emphasis added). At best, this assertion only addresses the purported *novelty* of the claim over each of the cited references; AAD never addresses the obviousness of the claimed subject matter, in particular the limitations added via amendment. Therefore, even if we were to excuse AAD's failure to discuss references such as Logan, Looney, and Yankowski in its Motion to Amend, AAD has not demonstrated that the proposed claims are not obvious over the art.

We, therefore, conclude that AAD has not met its burden of demonstrating that it is entitled to the relief requested in its Motion to Amend. In particular, the

¹¹ Ex. 1018, US 6,199,076 B1 to Logan et al. (filed Oct. 2, 1996).

¹² Ex. 1020, US 5,969,283 to Looney et al. (filed June 17, 1998).

¹³ Ex. 1019, US 5,751,672 to Yankowski (May 12, 1998).

Motion fails to set forth a clear claim construction for *customizable*; fails to address the patentability of the claims over the prior art of record; and fails to address the patentability of the claims over the material prior art known to AAD. The Motion to Amend is *denied*.

III. CONCLUSION

We conclude that HTC has demonstrated, by a preponderance of the evidence, that claims 1, 3, 6, 7, 11, 12, 16, 22, 24, 27, 29, 30, 35–37, 43, and 45–47 of the '403 patent are unpatentable under 35 U.S.C. § 103, as having been obvious over the following combinations of prior art references:

Claims 1, 6, 7, 22, 27, 29, 30, 35, 43, and 45–47:
Nathan '259 and Nathan '255; and

Claims 1, 3, 6, 7, 11, 12, 16, 22, 24, 30, 35–37,
43, and 45–47: Sound Blaster, Lucente, and
Ozawa.

In addition, we conclude that AAD has not demonstrated, by a preponderance of the evidence, that proposed substitute claims 49–65 are patentable over the prior art, and that it is entitled to entry of the proposed substitute claims. We, therefore, *deny* AAD's Motion to Amend.

IV. ORDER

Accordingly, it is

ORDERED that claims 1, 3, 6, 7, 11, 12, 16, 22, 24, 27, 29, 30, 35–37, 43, and 45–47 of U.S. Patent No. 6,587,403 B2 are *unpatentable*;

FURTHER ORDERED that Patent Owner's Motion to Exclude is *denied*;

FURTHER ORDERED that Patent Owner's Motion to Amend is *denied* as to proposed substitute claims 49–65;

FURTHER ORDERED that, pursuant to 35 U.S.C. § 318(b), upon expiration of the time for appeal of this decision, or the termination of any such appeal, a certificate shall issue canceling claims 1, 3, 6, 7, 11, 12, 16, 22, 24, 27, 29, 30, 35–37, 43, and 45–47 in U.S. Patent No. 6,587,403 B2; and

FURTHER ORDERED that, because this is a final decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

For Petitioner:

Bing Ai
Hwa C. Lee
Thomas N. Millikan
Matthew C. Bernstein
Evan S. Day
PERKINS COIE LLP
Ai-ptab@perkinscoie.com
HLee@perkinscoie.com
TMillikan@perkinscoie.com
MBernstein@perkinscoie.com
Eday@perkinscoie.com

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For Patent Owner:

James R. Foley
Timothy M. McCarthy
CLARK HILL PLC
jfoley@clarkhill.com
tmccarthy@clarkhill.com

APPENDIX C

Trials@uspto.gov
571-272-7822

Paper 36
Date: December 29, 2015

**UNITED STATES PATENT AND TRADEMARK
OFFICE**

**BEFORE THE PATENT TRIAL AND APPEAL
BOARD**

**Case IPR2014-01155
Patent 7,289,393 B2**

[Filed December 29, 2015]

HTC CORPORATION and HTC AMERICA, INC.,)
Petitioner,)
)
v.)
)
ADVANCED AUDIO DEVICES, LLC,)
Patent Owner.)
_____)

Before SCOTT A. DANIELS, CHRISTOPHER L.
CRUMBLY, and GEORGIANNA W. BRADEN,
Administrative Patent Judges.

CRUMBLY, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
35 U.S.C. § 318 and 37 C.F.R. § 42.73

I. INTRODUCTION

In this *inter partes* review trial, instituted pursuant to 35 U.S.C. § 314, Petitioner HTC Corporation and HTC America, Inc. (collectively, “HTC”) challenges the patentability of claims 1, 3, 6, 7, 9, 11, 25, 30, 59, 77, 82, 85, and 117–122 of U.S. Patent No. 7,289,393 B2 (Ex. 1001, “the ’393 patent”), owned by Advanced Audio Devices, LLC (“AAD”).

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision, issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73, addresses issues and arguments raised during trial. For the reasons discussed below, we determine that HTC has met its burden to prove, by a preponderance of the evidence, that claims 1, 3, 6, 7, 9, 11, 25, 30, 59, 77, 82, 85, and 117–122 of the ’393 patent are *unpatentable*.

A. Procedural History

On July 11, 2014, HTC filed a Petition requesting *inter partes* review of claims 1, 3, 6, 7, 9, 11, 25, 30, 59, 77, 82, 85, and 117–122 of the ’393 patent. Paper 1, “Pet.” AAD filed a Patent Owner’s Preliminary Response. Paper 5. In a December 30, 2014, Decision on Institution of *Inter Partes* Review (Paper 6, “Dec.”), we instituted trial on claims 1, 3, 6, 7, 9, 11, 25, 30, 59, 77, 82, 85, and 117–122 based on the following grounds:

1. Whether claims 1, 3, 6, 7, 11, 25, 30, 59, 77, 82, 85, and 117–122 are unpatentable under 35 U.S.C. § 103 as having been obvious over the

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combined disclosures of Nathan '259¹ and Nathan '255;²

2. Whether claims 1, 3, 6, 7, 11, 25, 30, 77, 82, 117, 118, 120, and 121 are unpatentable under 35 U.S.C. § 103 as having been obvious over the combined disclosures of Sound Blaster,³ Lucente,⁴ and Ozawa;⁵
3. Whether claims 59 and 119 are unpatentable under 35 U.S.C. § 103 as having been obvious over the combined disclosures of Sound Blaster, Lucente, Ozawa, and Martin;⁶
4. Whether claims 85 and 122 are unpatentable under 35 U.S.C. § 103 as having been obvious over the combined disclosures of Sound Blaster, Lucente, Ozawa, and Hawkins;⁷ and
5. Whether claim 9 is unpatentable under 35 U.S.C. § 103 as having been obvious over the

¹ Ex. 1002, WO 96/12259 to Nathan et al. (Apr. 25, 1996).

² Ex. 1003, WO 96/12255 to Nathan et al. (Apr. 25, 1996).

³ Ex. 1004, Exhibit B, Sound Blaster 16 User Reference Manual. With Sound Blaster, HTC submits the Declaration of Kyle A. Miller, which states that Sound Blaster was publicly available “no later than the early spring of 1995.” Ex. 1004 ¶ 13.

⁴ Ex. 1005, EP 0598547 A2 to Lucente et al. (May 25, 1994).

⁵ Ex. 1006, US 5,870,710 to Ozawa et al. (filed Jan. 22, 1997).

⁶ Ex. 1007, US 5,355,302 to Martin et al. (Oct. 11, 1994).

⁷ Ex. 1008, US 5,333,116 to Hawkins et al. (July 26, 1994).

combined disclosures of Sound Blaster, Lucente, Ozawa, and Kikinis.⁸

Dec. 23–24.

Following institution, AAD filed a Patent Owner’s Response to the Petition (Paper 14, “PO Resp.”), and HTC filed a Reply (Paper 20, “Pet. Reply”).

HTC supported its Petition with the Declaration of Christopher Schmandt (Ex. 1009), and submitted a Rebuttal Declaration of Mr. Schmandt (Ex. 1016) with its Reply.

With its Patent Owner Response, AAD filed the Declaration of Joseph C. McAlexander III. Ex. 2007. HTC took the cross-examination of Mr. McAlexander via deposition. Ex. 1020. AAD also submitted the testimony of Peter J. Keller, a named inventor on the ’393 patent. Ex. 2008.⁹

AAD filed a Motion to Exclude Exhibit 1004 (Paper 23, “Mot. Exclude”), to which HTC filed an Opposition (Paper 25, “Exclude Opp.”) and AAD filed a Reply (Paper 28, “Exclude Reply”).

Oral hearing was requested by both parties, and a consolidated oral hearing involving this trial and related trials IPR2014-01154, IPR2014-01156, IPR2014-01157, and IPR2014-01158 was held on

⁸ Ex. 1012, US 5,522,089 to Kikinis et al. (May 28, 1996).

⁹ Exhibit 2008 was the subject of a Motion to Seal (Paper 13), which was granted. Paper 26. A public, redacted version of Exhibit 2008 was also filed by AAD under the same exhibit number.

September 17, 2015. A transcript of the oral hearing is included in the record. Paper 35, “Tr.”

B. The '393 Patent

The '393 patent discloses an audio recording device that the specification terms a “music jukebox.” Ex. 1001, 1:14–15. According to the specification, existing recording devices permitted music to be recorded onto a compact disc in real time, but did not provide editing functions, the ability to store music on the recorder for making multiple copies of the disc, or the ability to customize easily the order in which tracks are recorded onto the disc. *Id.* at 2:26–60. The described music jukebox is said to address these issues, as well as permit a user to “audition” a stored audio track by listening to it before recording onto a compact disc. *Id.* at 3:22–41.

Various hardware components of the jukebox are described in the specification, including: audio inputs for receiving music in the form of analog signals (*id.* at 7:58–65); one or more data storage structures for storing and retrieving audio stored in digital form (*id.* at 9:20–29); and a drive for recording stored audio onto compact discs (*id.* at 14:10–11). The audio data stored in the memory permits audio tracks to be played back selectively, or “auditioned,” prior to recording. *Id.* at 4:39–48. The components of the music jukebox are contained in a housing having a display for providing information to a user, for example, through a graphical user interface. *Id.* at 4:55–5:15. The housing also comprises a plurality of push buttons for controlling operation of the device. *Id.* at 5:16–41.

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The specification of the '393 patent describes the operation of the device as permitting a user to create "sessions," which are groups of sound tracks selected from a master song list. *Id.* at 16:2–4, 17:12–20. A user also may reorder the songs within a session by selecting songs and moving them up or down within the session list. *Id.* at 16:43–53. The session then can be written to a compact disc. *Id.* at 15:66–16:2.

C. Illustrative Claims

Of the challenged claims, claims 1, 30, 59, 77, 82, and 85 are independent; all other challenged claims depend from these independent claims. Claim 1 is illustrative and reads as follows:

1. A personal digital stereo music player comprising:
 - a unitary, integral, non-articulated housing having a front panel and containing at least memory and a dedicated processor connected to the memory and configured specifically for maintaining and selectively accessing and playing songs stored in the memory;
 - a digital display installed in the housing and being visible on said front panel, said display being controlled by the processor, wherein the processor is configured to cause the display to selectively display a plurality of menus, wherein the menus include at least one of a list of song names and a list of groups of songs;
 - a headphone jack in the housing;

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an input in the housing for receiving digital music data;

an amplifier operatively connected to the processor and the headphone jack and configured to amplify audio output signals produced during playing, which are transmitted to the headphone jack;

and at least one touch-operable control in the housing and in communication with the processor, wherein the processor is configured such that said at least one touch-operable control is touchable to allow selection from the menus which the processor displays on the display,

wherein said at least one touch-operable control is touchable to direct the processor to play a specific song,

wherein said at least one touch-operable control is touchable to control the volume at which audio is played,

wherein the personal digital stereo music player is configured such that a user can select and play individual songs,

wherein the personal digital stereo music player is configured to display on the display at least one of time elapsed (ascending) and time remaining (descending) for the song being played, and

wherein the housing includes a front panel and at least one of said at least one touch-

operable control and the display are on the front panel;

said at least one touch-operable control further comprising at least one manually operable function controller located on said front panel with said display for controlling said processor to cause said music player to selectively carry out at least two of the functions start, stop, pause, advance and reverse the playing of songs.

Id. at 21:24–65 (line breaks and indentation added for readability).

II. DISCUSSION

A. *Claim Construction*

For purposes of our Decision to Institute, we analyzed each claim term in light of its broadest reasonable interpretation, as understood by one of ordinary skill in the art and as consistent with the specification of the '393 patent. 37 C.F.R. § 42.100(b); see *In re Cuozzo Speed Techs., LLC*, 778 F.3d 1271, 1281–82 (Fed. Cir. 2015). In the Decision to Institute, we construed the terms *soundtrack*, *manually operable function controller*, and *selectively accessing*. See Dec. 8–10. During the course of the trial, neither party asked us to modify our constructions of these claim terms. We see no reason to alter the constructions of these claim terms as set forth in the Decision to Institute, and we incorporate our previous analysis for purposes of this Decision. Therefore, for the reasons set forth in the Decision to Institute, we interpret these claim terms of the '393 patent as follows:

<i>sound track</i>	audio data
<i>manually operable function controller</i>	controller that can be operated by hand
<i>selectively accessing</i>	obtaining from a number or group by fitness or preference

Dec. 8–10 (citing 37 C.F.R. § 42.100(b)).

B. Alleged Obviousness of Claims 1, 3, 6, 7, 11, 25, 30, 59, 77, 82, 85, and 117–122 in View of Nathan '259 and Nathan '255

The elements of an obviousness analysis under 35 U.S.C. § 103 were set forth by the Supreme Court as follows: “the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved.” *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). Furthermore, as a guard against hindsight reasoning, we must “withhold judgment on an obviousness challenge until [we] consider[] all relevant evidence, including that relating to the objective considerations” such as commercial success or long-felt need. *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1079 (Fed. Cir. 2012). While we may apply “an expansive and flexible approach” to the question of obviousness, and take the sequence of the *Graham* factors in a different order depending on the particular case, “the factors continue to define the inquiry that controls.” *KSR Int’l. Co. v. Teleflex Inc.*, 550 U.S. 398, 407, 415 (2007).

We note, at the outset, that AAD does not contest that a person of ordinary skill in the art would have combined the disclosures of Nathan '259 and Nathan '255. Tr. 80:16–24. Rather, AAD disputes HTC's interpretation of the Nathan references, and whether a person of ordinary skill in the art would have understood them to disclose all elements of the challenged claims. PO Resp. 10. Upon review of HTC's asserted reasons to combine the Nathan references (Pet. 18), Mr. Schmandt's testimony on that point (Ex. 1009 ¶ 80), and the lack of challenge from AAD, we find that a person of ordinary skill would have had reason to combine the Nathan references in the manner asserted.

1. Disclosures of the Nathan References

The primary dispute between the parties on the Nathan references is over what the references actually disclose. According to HTC, the jukebox systems described in the Nathan systems permit purchase and download of songs from a remote server, into a master song list stored locally on the jukebox. Pet. 16–18. A user may then select songs from the master song list into a queue; after the songs are played, they are deleted from the queue, but not the local storage. *Id.* By contrast, AAD asserts that the jukeboxes of Nathan permit users to purchase the right to play a song only once; when the songs are downloaded, they are immediately added to the queue, then deleted from local storage immediately after they are played. PO Resp. 12–13. According to AAD, therefore, a user of the Nathan system has no control over the order of songs in the queue other than the order in which the songs were purchased. *Id.* at 29–30. Nor does Nathan, in

AAD's reading, provide any library distinct from the queue. *Id.* at 23 ("The queue is *not* a subset of an internal music library; the queue *is* the music library.") (citing Ex. 2007 ¶ 62)

In our Decision to Institute, we determined that the record at that time did not support AAD's interpretation of the Nathan references. Rather, we concluded that "it appears that Nathan '259 discloses deleting songs from the *queue* once they are played, not from the music library altogether." Dec. 14 (citing Ex. 1002 ¶ 86 ("[w]hen the selection has been reproduced in its entirety, it is removed from the queue file")). We also determined that the record supported the conclusion that Nathan '259 discloses a "new selection acquisition mode" ("NSAM") for ordering and downloading new music onto the jukebox. Dec. 14; Ex. 1002 ¶¶ 64–73. A "selection graphics screen" then permits a user to add these newly acquired songs to a queue for playback. Ex. 1002 ¶ 74. We concluded that Nathan '259 appeared to describe a master song list to which songs are added via the NSAM, as well as the ability to create a queue of songs selected from the master song list using the selection graphics screen. Dec. 14.

AAD's Response contends that our interpretation of Nathan '259 was in error (PO Resp. 11), and Mr. McAlexander testifies in support of AAD's interpretation of the reference. Ex. 2007 ¶¶ 32–65. AAD raises several issues regarding the disclosure of Nathan '259, which it contends are inconsistent with HTC's interpretation of the reference.

First, AAD asks why, if songs are not deleted entirely from the device immediately following playback, Nathan '259 does not disclose some sort of “delete” function so that users can clear songs from the memory. PO Resp. 18–19. HTC responds by noting that Nathan '259, as a patent document, likely is focused on the novel aspects of the disclosed device as opposed to known functions such as deleting files. Pet. Reply 10–11.

Prior art references are evaluated according to what they would disclose to a person of ordinary skill in the art. *See Sundance, Inc. v. DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1361 n.3 (Fed. Cir. 2008). As such, the fact that a reference is silent regarding a particular feature only signifies exclusion of that feature if a person of ordinary skill would understand silence to imply exclusion. AAD provides no compelling evidence this is the case with Nathan '259. Mr. McAlexander, AAD's expert, testifies that there is no disclosure of a delete function in Nathan '259, but does not state that he, or any other person of ordinary skill, would interpret this silence to imply that a delete function is excluded. Ex. 2007 ¶ 62. Furthermore, we note that Nathan '255 explicitly discloses a manual delete function for removing little-known titles. Ex. 1003 ¶ 7. We do not find the absence of an explicit “delete function” in Nathan '259 to imply that the Nathan jukebox does not have such a common and known function.

Second, AAD notes that Nathan '259 discloses a system having as little as 32 megabytes of RAM, and asks why such a small amount of memory is contemplated if a local music library is stored. PO

Resp. 19. HTC responds by noting that the 32 megabyte capacity is a minimum, and Nathan '259 puts no upper limit on the number of songs that can be stored. Pet. Reply 11. Furthermore, HTC notes that Nathan '255 discloses that its device may store a “minimum of 350 to 400 titles.” *Id.* (citing Ex. 1003 ¶ 7). We consider HTC’s interpretation on this point to be persuasive, and do not understand the disclosure of a 32 megabyte minimum memory capacity to be inconsistent with our understanding of the Nathan references.

Third, AAD points out a passage in Nathan '259 that states that a button “allows validation of the selection or selections for initiating their introduction into the queue,” (Ex. 1002 ¶ 74) and argues that “validation” refers to purchase of a song. PO Resp. 22–23. Therefore, under AAD’s theory, purchase of a song results in immediate addition to the queue. *Id.* HTC contends that such an interpretation would render Nathan '259’s two modules redundant, as there would be no reason to have both a “new selections acquisition module” (“NSAM”) and a “selection graphics screen,” if songs are directly added from the NSAM to the queue. Pet. Reply 9. We agree with HTC, and additionally note that Nathan '259 uses the word “validate” in other contexts meaning “to confirm.” Ex. 1002 ¶ 75 (“validates his choice”), ¶ 114 (“validates the credit card”). We, therefore, interpret “validation of his the selection” in paragraph 74 of Nathan '259 to refer to confirming that a song will be added to the queue, rather than purchase of a song.

At oral argument, AAD discussed these issues, and asked several other questions regarding the disclosure

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of Nathan '259 which had not been raised previously in briefing. Tr. 53–54. Even if we were to consider such arguments properly raised,¹⁰ we do not find them persuasive. Based on our review of the Nathan references, in light of the expert testimony, our interpretation of the Nathan disclosures has not changed.

We find that Nathan '259 discloses a jukebox that permits the downloading of song tracks via its NSAM. Ex. 1002 ¶ 64, 73 (“The display of FIG. 9 allows the user to access the new selections acquisition mode in connection with the NSAM module. . . . Button (1038) allows ordering of the selection which is then downloaded according to the above described mode.”). A different “selection graphics screen” shows the songs that have been downloaded, permits the user to sort the songs according to different criteria, and gives the user the ability to add songs to a queue. *Id.* ¶ 74 (“Button (124) allows validation of the selection or selections for initiating their introduction into the queue or their immediate and successive performance if the queue is empty.”). Contrary to AAD’s argument, we see no reason to conclude that when a file is purchased and downloaded, it is immediately added to the queue, and deleted from local memory immediately after it is played. Nor do we find that the Nathan systems only permit the order of the queue to be determined by purchase order, as opposed to the order

¹⁰ “A party may . . . only present [at oral hearing] arguments relied upon in the papers previously submitted. No new evidence or arguments may be presented at the oral argument.” *Office Patent Trial Practice Guide*, 77 Fed. Reg. 48,756, 48,768 (Aug. 14, 2012).

in which the songs are selected from the library of all downloaded songs.

2. *Analysis of Obviousness Over Nathan '259 and Nathan '255*

a. *Independent Claims*

There is no dispute between the parties that the Nathan references disclose several of the elements found in the independent claims, of which we discuss claim 1 as representative. We find that Nathan '259 discloses a unitary housing (“box,” Ex. 1002 ¶ 46); memory and a connected, dedicated processor (“RAM,” *id.* ¶ 51); a headphone jack (“stereo audio output,” *id.* ¶ 42); an input for receiving digital music data (“telecommunications interface,” *id.* ¶ 3); and at least one touch-operable control (“a set of buttons,” *id.* ¶ 46). AAD does not contest these elements.

Furthermore, the combination of Nathan '259 and Nathan '255 discloses a digital display in the housing, configured to display a plurality of menus. As AAD recognizes, Nathan '255 discloses a touchscreen display within its housing for controlling the jukebox. Ex. 1003 ¶ 24; PO Resp. 34. The touchscreen is a 14 inch “Intelli Touch” screen that “allows display of various selection data used by the customers.” Ex. 1003 ¶ 24. Mr. Schmandt, HTC’s expert and a founder of the MIT Media Lab with more than thirty years of experience in the media technology field, testifies that “[a] person skilled in the art would be motivated to implement the touch screen disclosed in Nathan 255 on the LCD screen . . . disclosed in Nathan 259, to allow more intuitive control of the jukebox.” Ex. 1009 ¶¶ 12, 13, 102. We, therefore, conclude that it would have been

obvious to include the touchscreen of Nathan '255 in the housing of Nathan '259, to display the modules of Nathan '259 such as the selection graphics screen. *See* Ex. 1002 ¶ 74. The display in the housing would be capable of displaying a plurality of menus, wherein the menus include at least one of a list of song names, as required by claim 1.

The parties' dispute centers on two additional elements. AAD first argues that the references do not disclose selectively accessing and playing songs in memory. PO Resp. 35–36. To support this argument, AAD relies on its interpretation of Nathan as permitting only “single-play” downloads of songs, with immediate introduction of downloaded songs into a queue that cannot be selectively accessed. *Id.* As discussed above, we do not find this interpretation of Nathan '259's disclosure to be the correct one.

Given our finding that Nathan '259 discloses the ability to select songs to download to local storage, followed by the ability to select songs for introduction into a queue, we find that the Nathan references disclose the ability to selectively access songs stored in memory. The songs downloaded into Nathan's local memory become “songs stored in memory,” and the selection of songs into a queue is “selectively accessing” those songs. This satisfies our construction of *selectively accessing*, originally proposed by AAD, of “obtaining from a number or group by fitness or preference.” *See supra*, Section II.A.

AAD also argues that the Nathan references do not disclose a touch-operable control touchable to play a specific song stored in memory. PO Resp. 36–37. As outlined above, however, we find that Nathan '259

discloses buttons that can be used to introduce songs into its queue. Ex. 1002 ¶¶ 46, 66, 74 (“Button (124) allows validation of the selection or selections for initiating their introduction into the queue.”). Alternatively, we find that Nathan ’255 discloses a touchscreen that may be used to “allow[] display of various selection data used by the customers.” Ex. 1003 ¶ 24. Once introduced to the queue, the song will be played; if there are no songs in the queue, the song plays immediately. Ex. 1002 ¶ 74.

For these reasons, we find that the combination of Nathan ’259 and Nathan ’255 teaches each limitation of claim 1. AAD’s arguments to the contrary are not persuasive. Similarly, the limitations of the remaining challenged independent claims of the ’393 patent—30, 59, 77, 82, and 85—do not differ from claim 1 in any significant respect. For example, claim 30 recites the ability to “select and play individual songs or groups of songs,” while claim 85 recites “at least one touch operable control is touchable to turn the personal digital stereo music player on and off.” We do not consider these added elements to patentably distinguish over claim 1, and AAD makes no separate arguments regarding these other independent claims. We find that the disclosures of the Nathan references discussed above teach or suggest all elements of independent claims 30, 59, 77, 82, and 85.

b. Dependent Claims

AAD also contests the obviousness of dependent claims 3, 6, 12, 13, 26, 32, 35, 41, 42, 55, 80, 83, and 102 over the combined Nathan references. PO Resp. 38. With respect to claims 12, 13, 26, 32, 35, 41, 42, 55, 80, 83, and 102, however, these dependent claims were not

included in any ground in HTC's Petition; nor were they made part of the instituted *inter partes* review trial. AAD's arguments as to the patentability of these claims are, therefore, moot.

With respect to claims 3 and 6, AAD's argument is grounded in its interpretation of the Nathan '259 disclosure, which we rejected above. *Id.* Specifically, AAD argues that claim 3's requirement of "at least one touch-operable control is touchable to select a specific group of songs in memory for playback" is not taught, and claim 6's requirement of "at least one touch operable control is touchable to select and play a group of songs in a personalized play list" is not taught. *Id.*

The remaining dependent claims on which trial was instituted over the Nathan references—claims 7, 11, 25, and 117–122—are not discussed by AAD. These claims recite additional features such as a hard disk drive (claim 11), a touch-operable control touchable to pause music (claim 25), a touchscreen (claims 117–122), and the like. We find that these additional elements are taught or suggested by the combination of Nathan '259 and Nathan '255, and therefore do not patentably distinguish over the independent claims.

We, therefore, conclude that HTC has met its burden of showing that each element of challenged dependent claims 3, 6, 7, 11, 25, and 117–122 is taught or suggested by the combination of Nathan '259 and Nathan '255. As discussed above, we also find that a person of ordinary skill in the art would have had reason to combine the Nathan references.

3. *Objective Indicia of Nonobviousness*

Factual inquiries for an obviousness determination include secondary considerations based on evaluation and crediting of objective evidence of nonobviousness. *See Graham*, 383 U.S. at 17. Notwithstanding what the teachings of the prior art would have suggested to one of ordinary skill in the art at the time of the invention, the totality of the evidence submitted, including objective evidence of nonobviousness, may lead to a conclusion that the challenged claims would not have been obvious to one of ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984). Secondary considerations may include any of the following: long-felt but unsolved needs, failure of others, unexpected results, commercial success, copying, licensing, and praise. *See Graham*, 383 U.S. at 17; *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007).

To be relevant, evidence of nonobviousness must be commensurate in scope with the claimed invention. *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011) (citing *In re Tiffin*, 448 F.2d 791, 792 (CCPA 1971)); *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998). In that regard, in order to be accorded substantial weight, there must be a nexus between the merits of the claimed invention and the evidence of secondary considerations. *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995). “Nexus” is a legally and factually sufficient connection between the objective evidence and the claimed invention, such that the objective evidence should be considered in determining nonobviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988).

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The burden of showing that there is a nexus lies with the patent owner. *Id.*; see *Paulsen*, 30 F.3d at 1482.

AAD argues that the “clear commercial success” of the invention claimed in the ’393 patent demonstrates its nonobviousness, notwithstanding the disclosures of the Nathan references. PO Reply 50–52. To demonstrate this alleged commercial success, AAD submits the testimony of Peter Keller, supported by a number of confidential licenses which are said to have generated more than \$10,000,000 of gross revenue. *Id.* Mr. Keller describes the “AAD Family of Patents,” which includes the ’393 patent, other related United States Patents, and foreign counterparts. Ex. 2004 ¶¶ 5, 8. Mr. Keller testifies that, for each licensee, he ensured that “at least one commercial product sold” was covered by “at least one claim of at least one patent” of the family. *Id.* ¶ 11.

In cases in which the proffered evidence of commercial success is licenses, rather than sales of products embodying the invention, there is a danger that the licenses may have been taken only because they were cheaper than defending an infringement suit. See *EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 908 (Fed. Cir. 1985). In such situations, nexus between the commercial success and the patent cannot be inferred; rather, “affirmative evidence of nexus” is required. *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1324 (Fed. Cir. 2004). In other words, a patent owner must demonstrate “a nexus between the *merits of the invention* and the licenses of record,” otherwise the licenses are to be accorded little weight. *In re GPAC Inc.*, 57 F.3d at 1580 (emphasis added).

HTC notes that each of the licenses listed by Mr. Keller includes at least two patents that explicitly claim a compact disc recorder, an element not present in the claims of the '393 patent. Pet. Reply 24. HTC also contends that AAD fails to demonstrate any link between the invention of the '393 patent and the taking of the license; for example, AAD provides no apportionment of revenues to show the amount attributable to the '393 patent, as opposed to the other members of the licensed family. *Id.*

We agree with HTC that the evidence provided by AAD does not establish a sufficient link between the merits of the invention claimed in the '393 patent and the taking of the licenses. Although Mr. Keller notes that some of the provided licenses were taken in situations where there was no pending litigation against the licensee (Ex. 2004 ¶ 9), he does not address whether litigation had been *threatened* against those parties. We, therefore, cannot determine whether the licenses reflect the commercial value of the invention claimed in the '393 patent, or whether they were taken merely to avoid the cost of litigation, either pending or threatened. Absent a persuasive showing of nexus, AAD's evidence of licensing fails to establish commercial success.

We conclude that the evidence of objective indicia of nonobviousness is insufficient to overcome the evidence of obviousness over the combined Nathan references.

4. *Conclusion on Obviousness*

For the foregoing reasons, HTC has proven by a preponderance of the evidence that Nathan '255 and Nathan '259 teach all elements of challenged claims 1,

3, 6, 7, 11, 25, 30, 59, 77, 82, 85, and 117–122, and that a person of ordinary skill in the art would have had reason to combine the disclosures. Furthermore, we conclude that such a combination would have been within the level of ordinary skill in the art, as evidenced by the prior art of record. We, therefore, conclude that claims 1, 3, 6, 7, 11, 25, 30, 59, 77, 82, 85, and 117–122 would have been obvious at the time of the invention, and thus are unpatentable under 35 U.S.C. § 103.

C. Alleged Obviousness of Claims 1, 3, 6, 7, 11, 25, 30, 77, 82, 117, 118, 120, and 121 in View of Sound Blaster, Lucente, and Ozawa

We instituted trial to determine whether claims 1, 3, 6, 7, 11, 25, 30, 77, 82, 117, 118, 120, and 121 would have been obvious over the combined disclosures of Sound Blaster, Lucente, and Ozawa, finding persuasive HTC's unchallenged analysis in its Petition of how the elements of the challenged claims are taught by the references. Dec. 16–17, 21. In so doing, we noted that AAD did not dispute the alleged disclosures of the references, but instead disputed that Sound Blaster qualified as prior art to the '393 patent, and argued that a person of ordinary skill in the art would have not combined the references. *Id.* at 17. In its Response, AAD again does not address the disclosures of the references, and instead argues that the references are not combinable because the combined teachings would produce an inoperable device. PO Resp. 40–49. According to AAD, to combine Sound Blaster with the teachings of Lucent would require a substantial reconstruction and redesign of the elements in Lucent. *Id.* at 46–47. Thus, AAD concludes that the combination

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of Sound Blaster and Lucent and any other prior art would not have rendered the challenged claims obvious. *Id.* at 49. In addition, AAD moved to exclude Exhibit 1004 (Miller Declaration, Miller CV, and the Sound Blaster reference). Mot. Exclude 1.

Sound Blaster discloses audio software with a graphical user interface designed for organizing and playing back audio files. Ex. 1004, 2-1.¹¹ Sound Blaster also discloses the ability to group sound tracks into playlists. *Id.* at 2-20–2-28, Fig. 2-8.

Lucente discloses a “pen-based computer with an integral flat panel display and digitized screen.” Ex. 1005 1:3–4. The housing of Lucente includes an audio input and output, processor, and memory. *Id.* at 12:2–13, 7:39–49. According to HTC, the hardware of Lucente is capable of running the Sound Blaster software. Pet. 36.

Ozawa discloses a portable audio device that can download music from a network service center and save audio files to a hard drive in the device. Ex. 1006, 4:48–53. The Ozawa device has push-button controls on its face for controlling the operation of the device, such as playing and pausing music. *Id.* at 5:30–33.

At oral hearing, AAD’s counsel did not concede that Sound Blaster, Lucente, and Ozawa disclose all elements of the claims if combined, but acknowledged that AAD’s briefs had provided no argument on that

¹¹ HTC did not add page numbers to the Sound Blaster reference, as required by our Rules. *See* 37 C.F.R. § 42.63(d)(2)(i). We refer to the page numbers of the original Sound Blaster manual when citing the reference.

point. Tr. 90–91. Specifically, AAD did not provide any evidence or testimony contrary to the evidence and testimony provided by Petitioner regarding the disclosures of Sound Blaster, Lucent, and Ozawa. Our Scheduling Order in this case cautioned AAD that “any arguments for patentability not raised in the [Patent Owner Response] will be deemed waived.” Paper 7, 3. The Board’s Trial Practice Guide, furthermore, states that the Patent Owner Response “should identify all the involved claims that are believed to be patentable and state the basis for that belief.” *Office Patent Trial Practice Guide*, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012) (emphasis added). As the Board has stated, our governing statute and Rules “clearly place some onus on the patent owner, once trial is instituted, to address the material facts raised by the petition as jeopardizing patentability of the challenged claims.” *Johnson Health Tech Co. v. Icon Health & Fitness, Inc.*, Case IPR2013-00463, slip op. at 12 (PTAB Jan. 29, 2015) (Paper 41). By addressing only the combination of the references, AAD conveyed to the Board and HTC that the only bases for its belief that the challenged claims are patentable were (i) whether Sound Blaster and Lucente were combinable and (ii) whether Sound Blaster is admissible.

In our Decision to Institute, we concluded that HTC had made a threshold showing that Sound Blaster, Lucente, and Ozawa taught all the limitations of the challenged claims, sufficient for us to conclude that there was a reasonable likelihood that HTC would prevail in showing that the challenged claims were obvious over the combined references. Dec. 21. We must now determine whether the preponderance of the evidence of record supports a finding of obviousness. 35

U.S.C. § 316(e). Given AAD's waiver of argument that the combination of references does not teach all elements of the challenged claims, the record now contains the same arguments and evidence on that point as it did at the time of our Decision to Institute. After careful consideration of the entire record, including the Petition, Patent Owner's Response, and all evidence submitted by the parties, we find that the preponderance of the evidence of record supports a finding that HTC has set forth how all limitations of the challenged claims are taught by Sound Blaster, Lucente, and Ozawa. Pet. 42–58; Ex. 1007 ¶¶ 172–214 (Schmandt declaration including claim charts). We, therefore, turn to the two remaining issues on this ground of unpatentability: AAD's Motion to Exclude Sound Blaster, and whether a person of ordinary skill would have had reason to combine Sound Blaster, Lucente, and Ozawa.

1. Motion to Exclude Exhibit 1004

Exhibit 1004 contains two related documents: (1) the Declaration of Kyle A. Miller, attesting to the public availability of the Sound Blaster reference; and (2) the Sound Blaster reference itself. Mr. Miller testifies that Sound Blaster is a copy of a Sound Blaster 16 User Reference Manual he received during the course of his employment at Creative Labs, “no later than the early spring of 1995.” Ex. 1004 ¶ 19. According to Mr. Miller, his employer provided him with commercial versions of Creative Labs' most popular products, including the Sound Blaster 16 Audio Card. *Id.* ¶ 12. Mr. Miller testifies that the product he received included the User's Manual, and would have

been the same documentation provided to a commercial purchaser of the product. *Id.* ¶ 14.

AAD moves to exclude Exhibit 1004 on several grounds. Mot. Exclude 1. Pursuant to our Rules, a motion to exclude evidence must be filed to preserve any previously-made objections to evidence. 37 C.F.R. § 42.64(c). The motion must identify where in the record the objections were made, and must explain the objections. *Id.*

We note that AAD does not identify where in the record its objections to evidence were made prior to their being the basis of the Motion to Exclude, in violation of Rule 42.64(c). Indeed, the Board is aware of AAD's prior objections only because they were quoted in HTC's opposition to the Motion to Exclude. For this reason, AAD's Motion is procedurally deficient, and may be denied on this basis alone.

Even if we were to overlook the procedural deficiency of the motion itself, we would not exclude Exhibit 1004. First, AAD argues that the Miller Declaration is hearsay. Mot. Exclude 3–5. It does not appear that AAD previously made this objection, as required by our Rules. According to HTC, the only hearsay-based objection made by AAD was that Exhibit B (the Sound Blaster reference itself) did not satisfy the business records exception to the hearsay rule. Exclude Opp. 2. Furthermore, even if AAD had preserved such an objection, we do not consider the Miller Declaration to be hearsay, as it is not an out-of-court statement. In an *inter partes* review, direct testimony is typically provided via affidavit, with cross-examination taken via deposition. 37 C.F.R. § 42.53(a). In this respect, testimony via affidavit before the Board

is distinguishable from affidavits submitted in District Court cases cited by AAD, such as *Hilgraeve, Inc. v. Symantec Corp.*, 271 F. Supp. 2d 964 (E.D. Mich. 2003). See *Polaris Wireless, Inc. v. TruePosition, Inc.*, Case IPR2013-00323, slip op. at 41 (PTAB Nov. 3, 2014) (Paper 62).

Second, AAD objects to the copyright date on the Sound Blaster reference as hearsay. Mot. Exclude 5–7. Again, AAD has not established that it previously made such an objection, other than the general objection to “Exhibit B” as not being within the business records exception. This is insufficient to put HTC on notice that AAD was specifically objecting to the copyright date of the reference as hearsay. See 37 C.F.R. § 42.64(b)(1) (“The objection must identify the grounds for the objection with sufficient particularity to allow correction in the form of supplemental evidence.”). In any event, we consider the exclusion of the copyright date to be moot, as we do not rely on the copyright date to reach our determination that Sound Blaster was publicly available. Mr. Miller’s testimony that Sound Blaster was publicly available rests on his personal recollection, and merely cites the copyright date as corroboration for that recollection. Ex. 1004, Miller Decl., ¶ 17.

Third, AAD contends that Sound Blaster is not within the business records exception to the hearsay rule. Mot. Exclude 8. While it does appear that AAD previously made this objection, the Motion does not cite to where in the record the objection was made, as required by our Rule 42.64(c). Nevertheless, the application of a hearsay exception is irrelevant, as Sound Blaster is not offered for a hearsay purpose. As

a prior art reference, Sound Blaster is offered to show what information it would have conveyed to a person of ordinary skill in the art; the truth of the contents of Sound Blaster is not relevant to this inquiry. *See EMC Corp. v. Personal Web Techs., LLC*, Case IPR2013-00085, slip op. at 66 (PTAB May 15, 2014) (Paper 73) (“a prior art document submitted as a ‘printed publication’ under 35 U.S.C. § 102(b) is offered simply as evidence of what it described, not for proving the truth of the matters addressed in the document.”); *see Joy Techs., Inc. v. Manbeck*, 751 F. Supp. 225, 233 n.2 (D.D.C. 1990), *aff’d*, 959 F.2d 226 (Fed. Cir. 1992)).

Finally, AAD seeks to exclude Sound Blaster as not authenticated, as there is no evidence to authenticate the reference “except the inadmissible Miller Declaration.” Mot. Exclude 8. We have not found the Miller Declaration to be inadmissible, however. To authenticate an item of evidence, a party must “produce evidence sufficient to support a finding that the item is what the proponent claims it is.” Fed. R. Evid. 901(a). The Miller Declaration provides sufficient evidence to support the finding that Sound Blaster is what HTC contends it to be: a document distributed to the public with the commercially available version of the Sound Blaster 16 Audio Card.

For these reasons, even if AAD’s Motion to Exclude were procedurally proper, we would not exclude Exhibit 1004, including the Sound Blaster reference, from the record.

2. Combinability of References

HTC contends that a person of ordinary skill in the art would have had reason to combine Sound Blaster,

Lucente, and Ozawa. Pet. 38–39. First, HTC argues that the references pertain to personal computing devices with similar hardware, for similar purposes of reproducing audio. *Id.* at 38. In addition, HTC argues the devices of Lucente and Ozawa are directed to portable devices, and HTC asserts that a person of ordinary skill in the art would have combined the software of Sound Blaster with these devices to “improv[e] multimedia user experience.” *Id.* at 39.

To the contrary, AAD argues that combining Sound Blaster with Lucente would have been outside the level of ordinary skill at the time of the invention. PO Resp. 42. AAD first focuses on hardware incompatibilities between the tablet computer of Lucente and the software of Sound Blaster. *Id.* Citing the McAlexander Declaration, AAD argues that “[t]he amount of skill required to make the Lucente device compatible with the Sound Blaster software would substantially exceed the level of ordinary skill.” *Id.* at 40 (citing Ex. 2007 ¶¶ 23–28). Mr. McAlexander testifies that modification of the Lucente computer to run Sound Blaster would include such drastic steps as “redesign of the battery and thermal management within the housing to provide the designed battery operating time while preventing overheating of the internal circuits” (Ex. 2007 ¶ 25) and redesign of the “entire interface structure of the Sound Blaster 16 audio card . . . from an ISA configuration to a different bus standard, including firmware re-write to conform to the different bus protocol.” *Id.* ¶ 27.

Mr. McAlexander also testifies that the Sound Blaster software required a Windows 3.1 operating system, which allegedly was incompatible with the

“pen-based computer” disclosed in Lucente. *Id.* ¶ 28. For example, Mr. McAlexander points out Lucente’s recitation of the ability to rotate the display to permit either right-handed or left-handed operation, and states that such a functionality was not provided in Windows 3.1. *Id.* ¶ 30.

In response, HTC argues that AAD focuses too heavily on the physical combinability of the devices disclosed in the references, as opposed to whether the teachings of the references would be combined. Pet. Reply 16–17. HTC submits the testimony of Mr. Schmandt, who testifies that a person of ordinary skill in the art would have recognized that the functionality of the Sound Blaster software (such as storing and managing audio files, including making playlists) would provide similar benefits in a portable touchscreen computer, such as the one described in Lucente. Ex. 1009 ¶ 240. The disclosures of Sound Blaster and Lucente, according to Mr. Schmandt, would allow a person of ordinary skill in the art to construct a device as claimed in the ’393 patent. Ex. 1016 ¶ 53. Mr. Schmandt also addresses Mr. McAlexander’s opinion that a person of ordinary skill in the art would have been unable to combine the computer of Lucente with the software of Sound Blaster, and testifies that a person of ordinary skill would have both the knowledge and a reason to combine the teachings of these references. *Id.* ¶¶ 55–66.

In our view, HTC’s proposed analysis better comports with the “expansive and flexible approach” to obviousness set forth by the Supreme Court in *KSR*. “The test for obviousness is not whether the features of

a secondary reference may be bodily incorporated into the structure of the primary reference.” *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Our inquiry is, therefore, not “whether the references could be physically combined but whether the claimed inventions are rendered obvious by the teachings of the prior art as a whole.” *In re Etter*, 756 F.2d 852, 859 (Fed. Cir. 1985) (en banc).

Based on the combination of references proposed by HTC, Mr. Schmandt testifies that a person of ordinary skill in the art would have recognized the advantages of Sound Blaster’s *functionality*, and sought to incorporate those features into Lucente. Ex. 1009 ¶ 240 (“a person of ordinary skill in the art would be motivated to combine a system with the flexibility, portability, and ease of use of Lucente with the audio management capabilities of Sound Blaster”); *id.* at ¶ 242 (“it would be obvious to design a system with physical (e.g. push-button) controls to carry out the various *functions* designed by Sound Blaster, particularly in view of Lucente and Ozawa”) (emphasis added). The record reflects that such a modification would not have been outside the level of ordinary skill, which both experts define similarly. Ex. 1009 ¶ 25 (Schmandt: at least a bachelor’s degree in electrical engineering, computer science, or equivalent, and 1–3 years of experience in designing and programming consumer electronic devices); Ex. 2007 ¶ 8 (McAlexander: bachelor’s degree in electrical engineering or computer engineering, and at least two years of experience in the design of audio systems). This level of skill is also reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). AAD’s focus on whether the Sound

Blaster hardware sound card could be installed on the Lucente device, or whether the Sound Blaster software could run on Lucente's operating system, ignores that a person of ordinary skill is a "person of ordinary creativity, not an automaton." *KSR*, 550 U.S. at 421.

It would not have been outside the level of ordinary skill in the art, as defined by both experts, to modify the device of Lucente to have the functionality described in Sound Blaster—including grouping and ordering songs—as well as the ability to download songs as described in Ozawa. We, therefore, find that a person of ordinary skill in the art would have had reason to combine the disclosures of Sound Blaster, Lucente, and Ozawa, and would have had a reasonable expectation of success in doing so.

3. Objective Indicia of Nonobviousness

As discussed above, we have considered AAD's evidence of objective indicia of nonobviousness, but conclude that the evidence is insufficient to support a conclusion of nonobviousness.

4. Conclusion on Obviousness

For the foregoing reasons, HTC has proven by a preponderance of the evidence that Sound Blaster, Lucente, and Ozawa teach all elements of challenged claims 1, 3, 6, 7, 11, 25, 30, 77, 82, 117, 118, 120, and 121, and that a person of ordinary skill in the art would have had reason to combine the disclosures. Furthermore, we conclude that such a combination would have been within the level of ordinary skill in the art, as evidenced by the prior art of record. We, therefore, conclude that claims 1, 3, 6, 7, 11, 25, 30, 77, 82, 117, 118, 120, and 121 would have been obvious at

the time of the invention, and thus are unpatentable under 35 U.S.C. § 103.

D. Combinations of Sound Blaster, Lucente, and Ozawa with Martin, Hawkins, or Kikinis

HTC asserts three additional grounds of unpatentability, based on combinations of Sound Blaster, Lucente, and Ozawa with either Martin, Hawkins, or Kikinis. Pet. 53–60. AAD does not present additional arguments against these grounds, relying only on its argument that Sound Blaster, Lucente, and Ozawa are not properly combinable. PO Resp. 49–50. As discussed above, we do not agree with AAD that a person of ordinary skill in the art would not have combined Sound Blaster and Lucente, and therefore, AAD’s arguments against these additional three grounds fail for the same reasons.

Claims 59 and 119 are alleged to have been obvious over the combined teachings of Sound Blaster, Lucente, Ozawa, and Martin. Pet. 53–57. HTC relies on Martin to teach sorting songs by artist or title, and argues that the ability to do so permits a user to quickly identify a song from a large database. *Id.* at 53–54. HTC contends, therefore, a person would have combined Martin with the disclosures of Sound Blaster, Lucente, and Ozawa.

We find that Martin discloses providing on a display an index of available songs, sorted alphabetically either by artist or title. Ex. 1007, 7:22–25. We also credit Mr. Schmandt’s testimony that a person of ordinary skill in the art would have had reason to include this functionality in the combination of Sound Blaster, Lucente, and Ozawa. Ex. 1009 ¶ 331. As Mr. Schmandt

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notes, claim 59 contains similar limitations to claims 1 and 30, with the additional requirement of sorting songs alphabetically by title. *Id.* ¶ 329. We find that this additional limitation is disclosed by Martin, and the remaining limitations are disclosed by Sound Blaster, Lucente, and Ozawa, as discussed above. Similarly, claim 119, which depends from claim 59, further requires a touchscreen. We find that this element is disclosed by the touchscreen of Lucente. Ex. 1005, 7:12–26.

Claims 85 and 122 are said to have been obvious over the combined teachings of Sound Blaster, Lucente, Ozawa, and Hawkins. Pet. 57–59. Hawkins is cited as disclosing the additional limitation of claim 85, a touch-operable control to turn the personal digital audio player on and off. *Id.* We find that Hawkins’ disclosure of computer having a “main on/off switch” teaches this element (Ex. 1008, 5:34–36), and credit Mr. Schmandt’s testimony that a person of ordinary skill in the art would have had reason to incorporate such a switch (Ex. 1009 ¶ 358). The remaining elements of claim 85 are disclosed by Sound Blaster, Lucente, or Ozawa as set forth in the preceding section.

Claim 122 depends from claim 85, and further recites a touchscreen. We find this to be disclosed by Lucente for the reasons above.

Finally, HTC contends that Claim 9 would have been obvious over the combined teachings of Sound Blaster, Lucente, Ozawa, and Kikinis. Pet. 59–60. Claim 9 recites the additional feature of a microphone in the housing. Kikinis discloses a personal digital assistant with an internal microphone. Ex. 1012, 14:65–15:17. We credit Mr. Schmandt’s testimony that

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a person of skill in the art would have had reason to incorporate an internal microphone into Lucente, because the internal microphone of Kikinis performs the same function as the external microphone attached to the microphone port of Lucente. Ex. 1009 ¶ 384.

III. CONCLUSION

We conclude that HTC has demonstrated, by a preponderance of the evidence, that claims 1, 3, 6, 7, 9, 11, 25, 30, 59, 77, 82, 85, and 117–122 of the '393 patent are unpatentable under 35 U.S.C. § 103, as having been obvious over the following combinations of prior art references:

Claims 1, 3, 6, 7, 11, 25, 30, 59, 77, 82, 85, and 117–122: Nathan '259 and Nathan '255;

Claims 1, 3, 6, 7, 11, 25, 30, 77, 82, 117, 118, 120, and 121: Sound Blaster, Lucente, and Ozawa;

Claims 59 and 119: Sound Blaster, Lucente, Ozawa, and Martin;

Claims 85 and 122: Sound Blaster, Lucente, Ozawa, and Hawkins; and

Claim 9: Sound Blaster, Lucente, Ozawa, and Kikinis.

IV. ORDER

Accordingly, it is

ORDERED that claims 1, 3, 6, 7, 9, 11, 25, 30, 59, 77, 82, 85, and 117–122 of U.S. Patent No. 7,289,393 B2 are *unpatentable*;

FURTHER ORDERED that Patent Owner's Motion to Exclude is *denied*;

FURTHER ORDERED that, pursuant to 35 U.S.C. § 318(b), upon expiration of the time for appeal of this decision, or the termination of any such appeal, a certificate shall issue canceling claims 1, 3, 6, 7, 9, 11, 25, 30, 59, 77, 82, 85, and 117–122 in U.S. Patent No. 7,289,393 B2; and

FURTHER ORDERED that, because this is a final decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

For Petitioner:

Bing Ai
Hwa C. Lee
Thomas N. Millikan
Matthew C. Bernstein
Evan S. Day
PERKINS COIE LLP
Ai-ptab@perkinscoie.com
HLee@perkinscoie.com
TMillikan@perkinscoie.com
MBernstein@perkinscoie.com
EDay@perkinscoie.com

For Patent Owner:

James R. Foley
Timothy M. McCarthy
CLARK HILL PLC
jfoley@clarkhill.com
tmccarthy@clarkhill.com

APPENDIX D

Trials@uspto.gov
571-272-7822

Paper 36
Date: December 29, 2015

**UNITED STATES PATENT AND TRADEMARK
OFFICE**

**BEFORE THE PATENT TRIAL AND APPEAL
BOARD**

**Case IPR2014-01156
Patent 7,817,502 B2**

[Filed December 29, 2015]

HTC CORPORATION and HTC AMERICA, INC.,)
Petitioner,)
)
v.)
)
ADVANCED AUDIO DEVICES, LLC,)
Patent Owner.)
)

Before SCOTT A. DANIELS, CHRISTOPHER L.
CRUMBLY, and GEORGIANNA W. BRADEN,
Administrative Patent Judges.

CRUMBLY, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
35 U.S.C. § 318 and 37 C.F.R. § 42.73

I. INTRODUCTION

In this *inter partes* review trial, instituted pursuant to 35 U.S.C. § 314, Petitioner HTC Corporation and HTC America, Inc. (collectively, “HTC”) challenges the patentability of claims 1, 2, 14, 20, and 43–47 of U.S. Patent No. 7,817,502 B2 (Ex. 1001, “the ’502 patent”), owned by Advanced Audio Devices, LLC (“AAD”).

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision, issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73, addresses issues and arguments raised during trial. For the reasons discussed below, we determine that HTC has met its burden to prove, by a preponderance of the evidence, that claims 1, 2, 14, 20, and 43–47 of the ’502 patent are *unpatentable*.

A. Procedural History

On July 11, 2014, HTC filed a Petition requesting *inter partes* review of claims 1, 2, 14, 20, and 43–47 of the ’502 patent. Paper 1, “Pet.” AAD filed a Patent Owner’s Preliminary Response. Paper 5. In a Decision on Institution of *Inter Partes* Review (Paper 6, “Dec.”), we instituted trial on claims 1, 2, 14, 20, and 43–47 based on the following grounds:

1. Whether claims 1, 2, 14, 20, and 43–47 are unpatentable under 35 U.S.C. § 103 as having been obvious over the combined

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disclosures of Nathan '259¹ and Nathan '255;²
and

2. Whether claims 1, 2, 14, 20, and 43–47 are unpatentable under 35 U.S.C. § 103 as having been obvious over the combined disclosures of Sound Blaster,³ Lucente,⁴ Ozawa,⁵ and Hawkins.⁶

Dec. 22.

Following institution, AAD filed a Patent Owner's Response to the Petition (Paper 13, "PO Resp."), and HTC filed a Reply (Paper 20, "Pet. Reply").

HTC supported its Petition with the Declaration of Christopher Schmandt (Ex. 1008), and submitted a Rebuttal Declaration of Mr. Schmandt (Ex. 1013) with its Reply.

With its Patent Owner Response, AAD filed the Declaration of Joseph C. McAlexander III. Ex. 2007. HTC took the cross-examination of Mr. McAlexander

¹ Ex. 1002, WO 96/12259 to Nathan et al. (Apr. 25, 1996).

² Ex. 1003, WO 96/12255 to Nathan et al. (Apr. 25, 1996).

³ Ex. 1004, Exhibit B, Sound Blaster 16 User Reference Manual. With Sound Blaster, HTC submits the Declaration of Kyle A. Miller, which states that Sound Blaster was publicly available "no later than the early spring of 1995." Ex. 1004 ¶ 13.

⁴ Ex. 1005, EP 0598547 A2 to Lucente et al. (May 25, 1994).

⁵ Ex. 1006, US 5,870,710 to Ozawa et al. (filed Jan. 22, 1997).

⁶ Ex. 1008, US 5,333,116 to Hawkins et al. (July 26, 1994).

via deposition. Ex. 1017. AAD also submitted the testimony of Peter J. Keller, a named inventor on the '502 patent. Ex. 2008.⁷

AAD filed a Motion to Exclude Exhibit 1004 (Paper 23, "Mot. Exclude"), to which HTC filed an Opposition (Paper 25, "Exclude Opp.") and AAD filed a Reply (Paper 28, "Exclude Reply").

Oral hearing was requested by both parties, and a consolidated oral hearing involving this trial and related trials IPR2014-01154, IPR2014-01155, IPR2014-01157, and IPR2014-01158 was held on September 17, 2015. A transcript of the oral hearing is included in the record. Paper 35, "Tr."

B. The '502 Patent

The '502 patent discloses an audio recording device that the specification terms a "music jukebox." Ex. 1001, 1:16–17. According to the specification, existing recording devices permitted music to be recorded onto a compact disc in real time, but did not provide editing functions, the ability to store music on the recorder for making multiple copies of the disc, or the ability to customize easily the order in which tracks are recorded onto the disc. *Id.* at 2:28–62. The described music jukebox is said to address these issues, as well as permit a user to "audition" a stored audio track by listening to it before recording onto a compact disc. *Id.* at 3:23–39.

⁷ Exhibit 2008 was the subject of a Motion to Seal (Paper 14), which was granted. Paper 26. A public, redacted version of Exhibit 2008 was also filed by AAD under the same exhibit number.

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Various hardware components of the jukebox are described in the specification, including: audio inputs for receiving music in the form of analog signals (*id.* at 7:49–55); one or more data storage structures for storing and retrieving audio stored in digital form (*id.* at 9:9–16); and a drive for recording stored audio onto compact discs (*id.* at 13:55–57). The audio data stored in the memory permits audio tracks to be played back selectively, or “auditioned,” prior to recording. *Id.* at 4:34–43. The components of the music jukebox are contained in a housing having a display for providing information to a user, for example, through a graphical user interface. *Id.* at 4:50–5:10. The housing also comprises a plurality of push buttons for controlling operation of the device. *Id.* at 5:11–36.

The specification of the ’502 patent describes the operation of the device as permitting a user to create “sessions,” which are groups of sound tracks selected from a master song list. *Id.* at 15:43–45, 16:51–59. A user also may reorder the songs within a session by selecting songs and moving them up or down within the session list. *Id.* at 16:18–26. The session then can be written to a compact disc. *Id.* at 15:39–43.

C. Illustrative Claim

Of the challenged claims, only claim 1 is independent; all other challenged claims depend directly from claim 1. The challenged independent claim reads as follows:

1. A method of storing sound tracks in a personal digital stereo audio player and playing the stored sound tracks for personal enjoyment, said method comprising:

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deploying the personal digital stereo audio player, wherein the personal digital stereo audio player comprises:

a unitary, integral housing containing at least non-volatile memory and a processor connected to the non-volatile memory and configured for maintaining and selectively accessing and playing sound tracks stored in the non-volatile memory, the housing further comprising a display controlled by the processor, the processor being configured to cause the display to display a plurality of menus relating to a library of sound tracks, wherein all of the sound tracks in the library and their names are stored in the non-volatile memory of the personal digital stereo audio player, wherein the menus include at least one of a list of names of sound tracks and a list of groups of sound tracks;

a headphone jack in the housing;

an input in the housing for receiving audio data;

an amplifier operatively connected to the processor and the headphone jack and configured to amplify audio output signals produced during playing, which are transmitted to the headphone jack; and

at least one touch-operable control in the housing and in communication with the processor, wherein the processor is configured such that

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- at least one of the at least one touch-operable control is touchable to allow selection from the menus which the processor causes to be displayed on the display,
- at least one of the at least one touch-operable control is touchable to control the volume at which audio is played,
- at least one of the at least one touch-operable control is touchable to pause a sound track which is being played,
- at least one of the at least one touch-operable control is touchable to stop a sound track as it is being played and play the next sound track in a group of sound tracks,
- at least one of the at least one touch-operable control is touchable to selectively power the personal digital stereo audio player on and off, and
- at least one of the at least one touch-operable control is touchable to select and play at least one of an individual sound track and a group of sound tracks through the headphone jack,
- wherein the personal digital stereo audio player is configured to display on the display at least one of time elapsed (ascending) and time remaining (descending) for the sound track being played,
- wherein the personal digital stereo audio player is configured such that the non-volatile memory stores a library of sound tracks that

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is received by the input and which has been pre-selected by a user,

wherein the non-volatile memory comprises at least one of a Hard Disk Drive, solid state memory, and random address memory,

said method further comprising:

inputting audio data through the input of the personal digital stereo audio player to cause audio data to be received by the personal digital stereo audio player, whereby sound tracks become stored in the non-volatile memory as digital data; and

touching a one of the at least one touch-operable control []⁸ to display on the display at least one of a list of names of sound tracks, and a list of groups of sound tracks,

touching a one of the at least one touch-operable control to play at least one of a specific sound track and a group of sound tracks through the headphone jack, and

touching a one of the at least one touch-operable control to control the volume at which sound tracks are played through the headphone jack.

Id. at 20:56–21:65.

⁸ The words “in order” were removed from claim 1 by a Certificate of Correction, entered Jan 4, 2011. Ex. 1001.

II. DISCUSSION

A. *Claim Construction*

For purposes of our Decision to Institute, we analyzed each claim term in light of its broadest reasonable interpretation, as understood by one of ordinary skill in the art and as consistent with the specification of the '502 patent. 37 C.F.R. § 42.100(b); see *In re Cuozzo Speed Techs., LLC*, 778 F.3d 1271, 1281–82 (Fed. Cir. 2015). In the Decision to Institute, we construed the terms *soundtrack* and *selectively accessing*. See Dec. 8–10. During the course of the trial, neither party challenged our constructions of these claim terms. We see no reason to alter the constructions of these claim terms as set forth in the Decision to Institute, and we incorporate our previous analysis for purposes of this Decision. Therefore, for the reasons set forth in the Decision to Institute, we interpret these claim terms of the '502 patent as follows:

<i>sound track</i>	digital or analog signals, or audio data
<i>selectively accessing</i>	obtaining from a number or group by fitness or preference

Dec. 8–10 (citing 37 C.F.R. § 42.100(b)).

B. *Alleged Obviousness of Claims 1, 2, 14, 20, and 43–47 in View of Nathan '259 and Nathan '255*

The elements of an obviousness analysis under 35 U.S.C. § 103 were set forth by the Supreme Court as

follows: “the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved.” *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). Furthermore, as a guard against hindsight reasoning, we must “withhold judgment on an obviousness challenge until [we] consider[] all relevant evidence, including that relating to the objective considerations” such as commercial success or long-felt need. *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1079 (Fed. Cir. 2012). While we may apply “an expansive and flexible approach” to the question of obviousness, and take the sequence of the *Graham* factors in a different order depending on the particular case, “the factors continue to define the inquiry that controls.” *KSR Int’l. Co. v. Teleflex Inc.*, 550 U.S. 398, 407, 415 (2007).

We note, at the outset, that AAD does not contest that a person of ordinary skill in the art would have combined the disclosures of Nathan ’259 and Nathan ’255. Tr. 80:16–24. Rather, AAD disputes HTC’s interpretation of the Nathan references, and whether a person of ordinary skill in the art would have understood them to disclose all elements of the challenged claims. PO Resp. 9. Upon review of HTC’s asserted reasons to combine the Nathan references (Pet. 17–18), Mr. Schmandt’s testimony on that point (Ex. 1008 ¶ 83), and the lack of challenge from AAD, we find that a person of ordinary skill would have had reason to combine the Nathan references in the manner asserted.

1. *Disclosures of the Nathan References*

The primary dispute between the parties on the Nathan references is over what the references actually disclose. According to HTC, the jukebox systems described in the Nathan systems permit purchase and download of songs from a remote server, into a master song list stored locally on the jukebox. Pet. 16–18. A user may then select songs from the master song list into a queue; after the songs are played, they are deleted from the queue, but not the local storage. *Id.* By contrast, AAD asserts that the jukeboxes of Nathan permit users to purchase the right to play a song only once; when the songs are downloaded, they are immediately added to the queue, then deleted from local storage immediately after they are played. PO Resp. 10–12. According to AAD, therefore, a user of the Nathan system has no control over the order of songs in the queue other than the order in which the songs were purchased. *Id.* at 26. Nor does Nathan, in AAD’s reading, provide any library distinct from the queue. *Id.* at 19 (“The queue is *not* a subset of an internal music library; the queue *is* the music library.”) (citing Ex. 2007 ¶ 62)

In our Decision to Institute, we determined that the record at that time did not support AAD’s interpretation of the Nathan references. Rather, we concluded that “it appears that Nathan ’259 discloses deleting songs from the *queue* once they are played, not from the music library altogether.” Dec. 15 (citing Ex. 1002 ¶ 86 (“[w]hen the selection has been reproduced in its entirety, it is removed from the queue file”)). We also determined that the record supported the conclusion that Nathan ’259 discloses a “new

selections acquisition mode” (“NSAM”) for ordering and downloading new music onto the jukebox. Dec. 15; Ex. 1002 ¶¶ 64–73. A “selection graphics screen” then permits a user to add these newly acquired songs to a queue for playback. Ex. 1002 ¶ 74. We concluded that Nathan ’259 appeared to describe a master song list to which songs are added via the NSAM, as well as the ability to create a queue of songs selected from the master song list using the selection graphics screen. Dec. 15.

AAD’s Response contends that our interpretation of Nathan ’259 was in error (PO Resp. 10), and Mr. McAlexander testifies in support of AAD’s interpretation of the reference. Ex. 2007 ¶¶ 32–65. AAD raises several issues regarding the disclosure of Nathan ’259, which it contends are inconsistent with HTC’s interpretation of the reference.

First, AAD asks why, if songs are not deleted entirely from the device immediately following playback, Nathan ’259 does not disclose some sort of “delete” function so that users can clear songs from the memory. PO Resp. 14–15. HTC responds by noting that Nathan ’259, as a patent document, likely is focused on the novel aspects of the disclosed device as opposed to known functions such as deleting files. Pet. Reply 11.

Prior art references are evaluated according to what they would disclose to a person of ordinary skill in the art. *See Sundance, Inc. v. DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1361 n.3 (Fed. Cir. 2008). As such, the fact that a reference is silent regarding a particular feature only signifies exclusion of that feature if a person of ordinary skill would understand silence to imply exclusion. AAD provides no compelling evidence

this is the case with Nathan '259. Mr. McAlexander, AAD's expert, testifies that there is no disclosure of a delete function in Nathan '259, but does not state that he, or any other person of ordinary skill, would interpret this silence to imply that a delete function is excluded. Ex. 2007 ¶ 62. Furthermore, we note that Nathan '255 explicitly discloses a manual delete function for removing little-known titles. Ex. 1003 ¶ 7. We do not find the absence of an explicit "delete function" in Nathan '259 to imply that the Nathan jukebox does not have such a common and known function.

Second, AAD notes that Nathan '259 discloses a system having as little as 32 megabytes of RAM, and asks why such a small amount of memory is contemplated if a local music library is stored. PO Resp. 15–16. HTC responds by noting that the 32 megabyte capacity is a minimum, and Nathan '259 puts no upper limit on the number of songs that can be stored. Pet. Reply 11–12. Furthermore, HTC notes that Nathan '255 discloses that its device may store a "minimum of 350 to 400 titles." *Id.* at 12 (citing Ex. 1003 ¶ 7). We consider HTC's interpretation on this point to be persuasive, and do not understand the disclosure of a 32 megabyte minimum memory capacity to be inconsistent with our understanding of the Nathan references.

Third, AAD points out a passage in Nathan '259 that states that a button "allows validation of the selection or selections for initiating their introduction into the queue," (Ex. 1002 ¶ 74) and argues that "validation" refers to purchase of a song. PO Resp. 11–12, 19. Therefore, under AAD's theory, purchase of

a song results in immediate addition to the queue. *Id.* HTC contends that such an interpretation would render Nathan '259's two modules redundant, as there would be no reason to have both a "new selections acquisition module" ("NSAM") and a "selection graphics screen," if songs are directly added from the NSAM to the queue. Pet. Reply 9–10. We agree with HTC, and additionally note that Nathan '259 uses the word "validate" in other contexts meaning "to confirm." Ex. 1002 ¶ 75 ("validates his choice"), ¶ 114 ("validates the credit card"). We, therefore, interpret "validation of his the selection" in paragraph 74 of Nathan '259 to refer to confirming that a song will be added to the queue, rather than purchase of a song.

At oral argument, AAD discussed these issues, and asked several other questions regarding the disclosure of Nathan '259 which had not been raised previously in briefing. Tr. 53–54. Even if we were to consider such arguments properly raised,⁹ we do not find them persuasive. Based on our review of the Nathan references in light of the expert testimony, our interpretation of the Nathan disclosures has not changed.

We find that Nathan '259 discloses a jukebox that permits the downloading of song tracks via its NSAM. Ex. 1002 ¶ 64, 73 ("The display of FIG. 9 allows the user to access the new selections acquisition mode in connection with the NSAM module. . . . Button (1038)

⁹ "A party may . . . only present [at oral hearing] arguments relied upon in the papers previously submitted. No new evidence or arguments may be presented at the oral argument." *Office Patent Trial Practice Guide*, 77 Fed. Reg. 48,756, 48,768 (Aug. 14, 2012).

allows ordering of the selection which is then downloaded according to the above described mode.”). A different “selection graphics screen” shows the songs that have been downloaded, permits the user to sort the songs according to different criteria, and gives the user the ability to add songs to a queue. *Id.* ¶ 74 (“Button (124) allows validation of the selection or selections for initiating their introduction into the queue or their immediate and successive performance if the queue is empty.”). Contrary to AAD’s argument, we see no reason to conclude that when a file is purchased and downloaded, it is immediately added to the queue, and deleted from local memory immediately after it is played. Nor do we find that the Nathan systems only permit the order of the queue to be determined by purchase order, as opposed to the order in which the songs are selected from the library of all downloaded songs.

2. *Analysis of Obviousness Over Nathan ’259 and Nathan ’255*

a. *Claim 1*

There is no dispute between the parties that the Nathan references disclose several of the elements found in the independent claims, of which we discuss claim 1 as representative. We find that Nathan ’259 discloses a unitary, integral housing (“box,” Ex. 1002 ¶ 46); non-volatile memory and a connected processor (“RAM,” *id.* ¶ 51); a headphone jack (“stereo audio output,” *id.* ¶ 42); an input for receiving audio data (“telecommunications interface,” *id.* ¶ 3); and at least one touch-operable control (“a set of buttons,” *id.* ¶ 46). Nathan ’255 additionally discloses an amplifier

(Ex. 1003 ¶ 27, “integrated amplified loudspeakers”). AAD does not contest these elements.

Furthermore, the combination of Nathan ’259 and Nathan ’255 discloses a digital display in the housing, configured to display a plurality of menus relating to a library of soundtracks. As AAD recognizes, Nathan ’255 discloses a touchscreen display within its housing for controlling the jukebox. Ex. 1003 ¶ 24; PO Resp. 33. The touchscreen is a 14 inch “Intelli Touch” screen that “allows display of various selection data used by the customers.” Ex. 1003 ¶ 24. Mr. Schmandt, HTC’s expert and a founder of the MIT Media Lab with more than thirty years of experience in the media technology field, testifies that “[a] person skilled in the art would be motivated to implement the touch screen disclosed in Nathan 255 on the LCD screen . . . disclosed in Nathan 259, to allow more intuitive control of the jukebox.” Ex. 1008 ¶¶ 12, 13, 103. We, therefore, conclude that it would have been obvious to include the touchscreen of Nathan ’255 in the housing of Nathan ’259, to display the modules of Nathan ’259 such as the selection graphics screen. *See* Ex. 1002 ¶ 74. The display in the housing would be capable of displaying a plurality of menus, wherein the menus include at least one of a list of song names, as required by claim 1.

The parties’ dispute centers on two additional elements. AAD first argues that the references do not disclose selectively accessing and playing soundtracks stored in the non-volatile memory. PO Resp. 33–34. To support this argument, AAD relies on its interpretation of Nathan as permitting only “single-play” downloads of songs, with immediate introduction of downloaded songs into a queue that cannot be selectively accessed.

Id. As discussed above, we do not find this interpretation of Nathan '259's disclosure to be the correct one.

Given our finding that Nathan '259 discloses the ability to select songs to download to local storage, followed by the ability to select songs for introduction into a queue, we find that the Nathan references disclose the ability to selectively access songs stored in memory. The songs downloaded into Nathan's local memory become "songs stored in memory," and the selection of songs into a queue is "selectively accessing" those songs. This satisfies our construction of *selectively accessing*, originally proposed by AAD, of "obtaining from a number or group by fitness or preference." *See supra*, Section II.A.

AAD also argues that the Nathan references do not disclose a touch-operable control touchable to play at least one of an individual sound track and a group of sound tracks stored in the non-volatile memory. PO Resp. 34–35. As outlined above, however, we find that Nathan '259 discloses buttons that can be used to introduce songs into its queue. Ex. 1002 ¶¶ 46, 66, 74 ("Button (124) allows validation of the selection or selections for initiating their introduction into the queue."). Alternatively, we find that Nathan '255 discloses a touchscreen that may be used to "allow[] display of various selection data used by the customers." Ex. 1003 ¶ 24. Once introduced to the queue, the song will be played; if there are no songs in the queue, the song plays immediately. Ex. 1002 ¶ 74.

For these reasons, we find that the combination of Nathan '259 and Nathan '255 teaches each limitation

of claim 1. AAD's arguments to the contrary are not persuasive.

b. Dependent Claims

AAD does not address separately the limitations of dependent claims 2, 14, 20, and 43–47. These claims recite additional steps such as touching a control to turn the device on or off (claim 2), or touching a control to advance the playing of the sound track (claim 45). We find that these additional elements are taught or suggested by the combination of Nathan '259 and Nathan '255, or that a person of ordinary skill in the art would have modified the Nathan system to add such features. We, therefore, conclude that HTC has met its burden of showing that each element of challenged dependent claims 2, 14, 20, and 43–47 is taught by the combination of Nathan '259 and Nathan '255. As discussed above, we also find that a person of ordinary skill in the art would have had reason to combine the Nathan references.

c. Objective Indicia of Nonobviousness

Factual inquiries for an obviousness determination include secondary considerations based on evaluation and crediting of objective evidence of nonobviousness. *See Graham*, 383 U.S. at 17. Notwithstanding what the teachings of the prior art would have suggested to one of ordinary skill in the art at the time of the invention, the totality of the evidence submitted, including objective evidence of nonobviousness, may lead to a conclusion that the challenged claims would not have been obvious to one of ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984). Secondary considerations may include any of the

following: long-felt but unsolved needs, failure of others, unexpected results, commercial success, copying, licensing, and praise. *See Graham*, 383 U.S. at 17; *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007).

To be relevant, evidence of nonobviousness must be commensurate in scope with the claimed invention. *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011) (citing *In re Tiffin*, 448 F.2d 791, 792 (CCPA 1971)); *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998). In that regard, in order to be accorded substantial weight, there must be a nexus between the merits of the claimed invention and the evidence of secondary considerations. *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995). “Nexus” is a legally and factually sufficient connection between the objective evidence and the claimed invention, such that the objective evidence should be considered in determining nonobviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). The burden of showing that there is a nexus lies with the patent owner. *Id.*; *see Paulsen*, 30 F.3d at 1482.

AAD argues that the “clear commercial success” of the invention claimed in the ’502 patent demonstrates its nonobviousness, notwithstanding the disclosures of the Nathan references. PO Resp. 45–46. To demonstrate this alleged commercial success, AAD submits the testimony of Peter Keller, supported by a number of confidential licenses which are said to have generated more than \$10,000,000 of gross revenue. *Id.* at 46. Mr. Keller describes the “AAD Family of Patents,” which includes the ’502 patent, other related United States Patents, and foreign counterparts.

Ex. 2008 ¶¶ 5, 8. Mr. Keller testifies that, for each licensee, he ensured that “at least one commercial product sold” was covered by “at least one claim of at least one patent” of the family. *Id.* ¶ 11.

In cases in which the proffered evidence of commercial success is licenses, rather than sales of products embodying the invention, there is a danger that the licenses may have been taken only because they were cheaper than defending an infringement suit. *See EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 908 (Fed.Cir.1985). In such situations, nexus between the commercial success and the patent cannot be inferred; rather, “affirmative evidence of nexus” is required. *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1324 (Fed. Cir. 2004). In other words, a patent owner must demonstrate “a nexus between the *merits of the invention* and the licenses of record,” otherwise the licenses are to be accorded little weight. *In re GPAC Inc.*, 57 F.3d at 1580 (emphasis added).

HTC notes that each of the licenses listed by Mr. Keller includes at least two patents that explicitly claim a compact disc recorder, an element not present in the claims of the '502 patent. Pet. Reply 23–24. HTC also contends that AAD fails to demonstrate any link between the invention of the '502 patent and the taking of the license; for example, AAD provides no apportionment of revenues to show the amount attributable to the '502 patent, as opposed to the other members of the licensed family. *Id.* at 23.

We agree with HTC that the evidence provided by AAD does not establish a sufficient link between the merits of the invention claimed in the '502 patent and the taking of the licenses. Although Mr. Keller notes

that some of the provided licenses were taken in situations where there was no pending litigation against the licensee (Ex. 2004 ¶ 9), he does not address whether litigation had been *threatened* against those parties. We, therefore, cannot determine whether the licenses reflect the commercial value of the invention claimed in the '502 patent, or whether they were taken merely to avoid the cost of litigation, either pending or threatened. Absent a persuasive showing of nexus, AAD's evidence of licensing fails to establish commercial success.

We conclude that the evidence of objective indicia of nonobviousness is insufficient to overcome the evidence of obviousness over the combined Nathan references.

d. Conclusion on Obviousness

For the foregoing reasons, HTC has proven by a preponderance of the evidence that Nathan '255 and Nathan '259 teach all elements of challenged claims 1, 2, 14, 20, and 43–47, and that a person of ordinary skill in the art would have had reason to combine the disclosures. Furthermore, we conclude that such a combination would have been within the level of ordinary skill in the art, as evidenced by the prior art of record. We, therefore, conclude that claims 1, 2, 14, 20, and 43–47 would have been obvious at the time of the invention, and thus are unpatentable under 35 U.S.C. § 103.

*C. Alleged Obviousness of Claims 1, 2, 14, 20, and
43–47 Over Sound Blaster, Lucente, Ozawa, and
Hawkins*

We instituted trial to determine whether claims 1, 2, 14, 20, and 43–47 would have been obvious over the combined disclosures of Sound Blaster, Lucente, and Hawkins, finding persuasive HTC’s unchallenged analysis in its Petition of how the elements of the challenged claims are taught by the references. Dec. 16–17, 21. In so doing, we noted that AAD did not dispute the alleged disclosures of the references, but instead disputed that Sound Blaster qualified as prior art to the ’502 patent, and argued that a person of ordinary skill in the art would have not combined the references. *Id.* at 17. In its Response, AAD again does not address the disclosures of the references, and instead argues that the references are not combinable because the combined teachings would produce an inoperable device. PO Resp. 36–45. According to AAD, to combine Sound Blaster with the teachings of Lucent would require a substantial reconstruction and redesign of the elements in Lucent. *Id.* at 39–42. Thus, AAD concludes that the combination of Sound Blaster and Lucent and any other prior art would not have rendered the challenged claims obvious. *Id.* at 45. In addition, AAD moved to exclude Exhibit 1004 (Miller Declaration, Miller CV, and the Sound Blaster reference). Mot. Exclude 1.

Sound Blaster discloses audio software with a graphical user interface designed for organizing and

playing back audio files. Ex. 1004, 2-1.¹⁰ Sound Blaster also discloses the ability to group sound tracks into playlists. *Id.* at 2-20–2-28, Fig. 2-8.

Lucente discloses a “pen-based computer with an integral flat panel display and digitized screen.” Ex. 1005 1:3–4. The housing of Lucente includes an audio input and output, processor, and memory. *Id.* at 12:2–13, 7:39–49. According to HTC, the hardware of Lucente is capable of running the Sound Blaster software. Pet. 35.

Ozawa discloses a portable audio device that can download music from a network service center and save audio files to a hard drive in the device. Ex. 1006, 4:48–53. The Ozawa device has push-button controls on its face for controlling the operation of the device, such as playing and pausing music. *Id.* at 5:30–33.

Hawkins discloses “a computing device in [the] form of a combination laptop and pad computer.” Ex. 1007, Abstract. HTC contends that Hawkins discloses that the computing device has an on/off control, and that a person of ordinary skill in the art would recognize the benefit of having an on/off control. Pet. 39.

At oral hearing, AAD’s counsel did not concede that Sound Blaster, Lucente, Ozawa, and Hawkins disclose all elements of the claims if combined, but acknowledged that AAD’s briefs had provided no argument on that point. Tr. 90–91. Specifically, AAD

¹⁰ HTC did not add page numbers to the Sound Blaster reference, as required by our Rules. *See* 37 C.F.R. § 42.63(d)(2)(i). We refer to the page numbers of the original Sound Blaster manual when citing the reference.

did not provide any evidence or testimony contrary to the evidence and testimony provided by Petitioner regarding the disclosures of Sound Blaster, Lucent, and Ozawa. Our Scheduling Order in this case cautioned AAD that “any arguments for patentability not raised in the [Patent Owner Response] will be deemed waived.” Paper 7, 3. The Board’s Trial Practice Guide, furthermore, states that the Patent Owner Response “should identify all the involved claims that are believed to be patentable *and state the basis for that belief.*” *Office Patent Trial Practice Guide*, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012) (emphasis added). As the Board has stated, our governing statute and Rules “clearly place some onus on the patent owner, once trial is instituted, to address the material facts raised by the petition as jeopardizing patentability of the challenged claims.” *Johnson Health Tech Co. v. Icon Health & Fitness, Inc.*, Case IPR2013-00463, slip op. at 12 (PTAB Jan. 29, 2015) (Paper 41). By addressing only the combination of the references, AAD conveyed to the Board and HTC that the only bases for its belief that the challenged claims are patentable were (i) whether Sound Blaster and Lucente were combinable and (ii) whether Sound Blaster is admissible.

In our Decision to Institute, we concluded that HTC had made a threshold showing that Sound Blaster, Lucente, Ozawa, and Hawkins taught all the limitations of the challenged claims, sufficient for us to conclude that there was a reasonable likelihood that HTC would prevail in showing that the challenged claims were obvious over the combined references. Dec. 21. We must now determine whether the preponderance of the evidence of record supports a finding of obviousness. 35 U.S.C. § 316(e). Given AAD’s

waiver of argument that the combination of references does not teach all elements of the challenged claims, the record now contains the same arguments and evidence on that point as it did at the time of our Decision to Institute. After careful consideration of the entire record, including the Petition, Patent Owner's Response, and all evidence submitted by the parties, we find that the preponderance of the evidence of record supports a finding that HTC has set forth how all limitations of the challenged claims are taught by Sound Blaster, Lucente, Ozawa, and Hawkins. Pet. 39–56; Ex. 1008 ¶¶ 152–195 (Schmandt declaration including claim charts). We, therefore, turn to the two remaining issues on this ground of unpatentability: AAD's Motion to Exclude Sound Blaster, and whether a person of ordinary skill would have had reason to combine Sound Blaster, Lucente, Ozawa, and Hawkins.

1. Motion to Exclude Exhibit 1004

Exhibit 1004 contains two related documents: (1) the Declaration of Kyle A. Miller, attesting to the public availability of the Sound Blaster reference; and (2) the Sound Blaster reference itself. Mr. Miller testifies that Sound Blaster is a copy of a Sound Blaster 16 User Reference Manual he received during the course of his employment at Creative Labs, “no later than the early spring of 1995.” Ex. 1004 ¶ 19. According to Mr. Miller, his employer provided him with commercial versions of Creative Labs' most popular products, including the Sound Blaster 16 Audio Card. *Id.* ¶ 12. Mr. Miller testifies that the product he received included the User's Manual, and would have been the same documentation provided to a commercial purchaser of the product. *Id.* ¶ 14.

AAD moves to exclude Exhibit 1004 on several grounds. Mot. Exclude 1. Pursuant to our Rules, a motion to exclude evidence must be filed to preserve any previously-made objections to evidence. 37 C.F.R. § 42.64(c). The motion must identify where in the record the objections were made, and must explain the objections. *Id.*

We note that AAD does not identify where in the record its objections to evidence were made prior to their being the basis of the Motion to Exclude, in violation of Rule 42.64(c). Indeed, the Board is aware of AAD's prior objections only because they were quoted in HTC's opposition to the Motion to Exclude. For this reason, AAD's Motion is procedurally deficient, and may be denied on this basis alone.

Even if we were to overlook the procedural deficiency of the motion itself, we would not exclude Exhibit 1004. First, AAD argues that the Miller Declaration is hearsay. Mot. Exclude 3–5. It does not appear that AAD previously made this objection, as required by our Rules. According to HTC, the only hearsay-based objection made by AAD was that Exhibit B (the Sound Blaster reference itself) did not satisfy the business records exception to the hearsay rule. Exclude Opp. 2. Furthermore, even if AAD had preserved such an objection, we do not consider the Miller Declaration to be hearsay, as it is not an out-of-court statement. In an *inter partes* review, direct testimony is typically provided via affidavit, with cross-examination taken via deposition 37 C.F.R. § 42.53(a). In this respect, testimony via affidavit before the Board is distinguishable from the affidavits submitted in District Court cases cited by AAD, such as *Hilgraeve*,

Inc. v. Symantec Corp., 271 F. Supp. 2d 964 (E.D. Mich. 2003). See *Polaris Wireless, Inc. v. TruePosition, Inc.*, Case IPR2013-00323, slip op. at 41 (PTAB Nov. 3, 2014) (Paper 62).

Second, AAD objects to the copyright date on the Sound Blaster reference as hearsay. Mot. Exclude 5–7. Again, AAD has not established that it previously made such an objection, other than the general objection to “Exhibit B” as not being within the business records exception. This is insufficient to put HTC on notice that AAD was specifically objecting to the copyright date of the reference as hearsay. See 37 C.F.R. § 42.64(b)(1) (“The objection must identify the grounds for the objection with sufficient particularity to allow correction in the form of supplemental evidence.”). In any event, we consider the exclusion of the copyright date to be moot, as we do not rely on the copyright date to reach our determination that Sound Blaster was publicly available. Mr. Miller’s testimony that Sound Blaster was publicly available rests on his personal recollection, and merely cites the copyright date as corroboration for that recollection. Ex. 1004. Miller Decl. ¶ 17.

Third, AAD contends that Sound Blaster is not within the business records exception to the hearsay rule. Mot. Exclude 8. While it does appear that AAD previously made this objection, the Motion does not cite to where in the record the objection was made, as required by our Rule 42.64(c). Nevertheless, the application of a hearsay exception is irrelevant, as Sound Blaster is not offered for a hearsay purpose. As a prior art reference, Sound Blaster is offered to show what information it would have conveyed to a person of

ordinary skill in the art; the truth of the contents of Sound Blaster is not relevant to this inquiry. *See EMC Corp. v. Personal Web Techs., LLC*, Case IPR2013-00085, slip op. at 66 (PTAB May 15, 2014) (Paper 73) (“a prior art document submitted as a ‘printed publication’ under 35 U.S.C. § 102(b) is offered simply as evidence of what it described, not for proving the truth of the matters addressed in the document.”); *see Joy Techs., Inc. v. Manbeck*, 751 F. Supp. 225, 233 n.2 (D.D.C. 1990), *aff’d*, 959 F.2d 226 (Fed. Cir. 1992)).

Finally, AAD seeks to exclude Sound Blaster as not authenticated, as there is no evidence to authenticate the reference “except the inadmissible Miller Declaration.” Mot. Exclude 8. We have not found the Miller Declaration to be inadmissible, however. To authenticate an item of evidence, a party must “produce evidence sufficient to support a finding that the item is what the proponent claims it is.” Fed. R. Evid. 901(a). The Miller Declaration provides sufficient evidence to support the finding that Sound Blaster is what HTC contends it to be: a document distributed to the public with the commercially available version of the Sound Blaster 16 Audio Card.

For these reasons, even if AAD’s Motion to Exclude were procedurally proper, we would not exclude Exhibit 1004, including the Sound Blaster reference, from the record.

2. *Combinability of References*

HTC contends that a person of ordinary skill in the art would have had reason to combine Sound Blaster, Lucente, Ozawa, and Hawkins. Pet. 37–39. First, HTC argues that the references pertain to personal

computing devices with similar hardware, for similar purposes of reproducing audio. Pet. 34. In addition, HTC argues the devices of Lucente, Ozawa, and Hawkins are directed to portable devices, and HTC asserts that a person of ordinary skill in the art would have combined the software of Sound Blaster with these devices to “improv[e] multimedia user experience.” *Id.* at 38.

To the contrary, AAD argues that combining Sound Blaster with Lucente would have been outside the level of ordinary skill at the time of the invention. PO Resp. 36–38. AAD first focuses on hardware incompatibilities between the tablet computer of Lucente and the software of Sound Blaster. *Id.* Citing the McAlexander Declaration, AAD argues that “[t]he amount of skill required to make the Lucente device compatible with the Sound Blaster software would substantially exceed the level of ordinary skill.” *Id.* at 36 (citing Ex. 2007 ¶¶ 23–28). Mr. McAlexander testifies that modification of the Lucente computer to run Sound Blaster would include such drastic steps as “redesign of the battery and thermal management within the housing to provide the designed battery operating time while preventing overheating of the internal circuits” (Ex. 2007 ¶ 25) and redesign of the “entire interface structure of the Sound Blaster 16 audio card . . . from an ISA configuration to a different bus standard, including firmware re-write to conform to the different bus protocol.” *Id.* ¶ 27.

Mr. McAlexander also testifies that the Sound Blaster software required a Windows 3.1 operating system, which allegedly was incompatible with the “pen-based computer” disclosed in Lucente. *Id.* ¶ 28.

For example, Mr. McAlexander points out Lucente’s recitation of the ability to rotate the display to permit either right-handed or left-handed operation, and states that such a functionality was not provided in Windows 3.1. *Id.* ¶ 30.

In response, HTC argues that AAD focuses too heavily on the physical combinability of the devices disclosed in the references, as opposed to whether the teachings of the references would be combined. Pet. Reply 16–17. HTC submits the testimony of Mr. Schmandt, who testifies that a person of ordinary skill in the art would have recognized that the functionality of the Sound Blaster software (such as storing and managing audio files, including making playlists) would provide similar benefits in a portable touchscreen computer, such as the one described in Lucente. Ex. 1008 ¶ 148. The disclosures of Sound Blaster and Lucente, according to Mr. Schmandt, would allow a person of ordinary skill in the art to construct a device as claimed in the ’502 patent. Ex. 1013 ¶ 52. Mr. Schmandt also addresses Mr. McAlexander’s opinion that a person of ordinary skill in the art would have been unable to combine the computer of Lucente with the software of Sound Blaster, and testifies that a person of ordinary skill would have both the knowledge and a reason to combine the teachings of these references. *Id.* ¶¶ 54–65.

In our view, HTC’s proposed analysis better comports with the “expansive and flexible approach” to obviousness set forth by the Supreme Court in *KSR*. “The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into

the structure of the primary reference.” *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Our inquiry is, therefore, not “whether the references could be physically combined but whether the claimed inventions are rendered obvious by the teachings of the prior art as a whole.” *In re Etter*, 756 F.2d 852, 859 (Fed. Cir. 1985) (en banc).

Based on the combination of references proposed by HTC, Mr. Schmandt testifies that a person of ordinary skill in the art would have recognized the advantages of Sound Blaster’s *functionality*, and sought to incorporate those features into Lucente. Ex. 1008 ¶ 148 (“a person of ordinary skill in the art would be motivated to combine a system with the flexibility, portability, and ease of use of Lucente with the audio management capabilities of Sound Blaster.”); *id.* at ¶ 150 (“it would be obvious to design a system with physical (e.g. push-button) controls to carry out the various *functions* designed by Sound Blaster, particularly in view of Lucente and Ozawa”) (emphasis added). The record reflects that such a modification would not have been outside the level of ordinary skill, which both experts define similarly. Ex. 1008 ¶ 25 (Schmandt: at least a bachelor’s degree in electrical engineering, computer science, or equivalent, and 1–3 years of experience in designing and programming consumer electronic devices); Ex. 2007 ¶ 8 (McAlexander: bachelor’s degree in electrical engineering or computer engineering, and at least two years of experience in the design of audio systems). This level of skill is also reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). AAD’s focus on whether the Sound Blaster hardware sound card could be installed on the

Lucente device, or whether the Sound Blaster software could run on Lucente's operating system, ignores that a person of ordinary skill is a "person of ordinary creativity, not an automaton." *KSR*, 550 U.S. at 421.

It would not have been outside the level of ordinary skill in the art, as defined by both experts, to modify the device of Lucente to have the functionality described in Sound Blaster—including grouping and ordering songs—as well as the ability to download songs as described in Ozawa and the on/off control of Hawkins. We, therefore, find that a person of ordinary skill in the art would have had reason to combine the disclosures of Sound Blaster, Lucente, Ozawa, and Hawkins and would have had a reasonable expectation of success in doing so.

3. Objective Indicia of Nonobviousness

As discussed above, we have considered AAD's evidence of objective indicia of nonobviousness, but conclude that the evidence is insufficient to support a conclusion of nonobviousness.

4. Conclusion on Obviousness

For the foregoing reasons, HTC has proven by a preponderance of the evidence that Sound Blaster, Lucente, and Ozawa teach all elements of challenged claims 1, 2, 14, 20, and 43–47, and that a person of ordinary skill in the art would have had reason to combine the disclosures. Furthermore, we conclude that such a combination would have been within the level of ordinary skill in the art, as evidenced by the prior art of record. We, therefore, conclude that claims 1, 2, 14, 20, and 43–47 would have been obvious at the

time of the invention, and thus are unpatentable under 35 U.S.C. § 103.

III. CONCLUSION

We conclude that HTC has demonstrated, by a preponderance of the evidence, that claims 1, 2, 14, 20, and 43–47 of the '502 patent are unpatentable under 35 U.S.C. § 103, as having been obvious over the following combinations of prior art references:

Claims 1, 2, 14, 20, and 43–47: Nathan '259 and Nathan '255; and

Claims 1, 2, 14, 20, and 43–47: Sound Blaster, Lucente, Ozawa, and Hawkins.

IV. ORDER

Accordingly, it is

ORDERED that claims 1, 2, 14, 20, and 43–47 of U.S. Patent No. 7,817,502 B2 are *unpatentable*;

FURTHER ORDERED that Patent Owner's Motion to Exclude is *denied*;

FURTHER ORDERED that, pursuant to 35 U.S.C. § 318(b), upon expiration of the time for appeal of this decision, or the termination of any such appeal, a certificate shall issue canceling claims 1, 2, 14, 20, and 43–47 in U.S. Patent No. 7,817,502 B2; and

FURTHER ORDERED that, because this is a final decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

For Petitioner:

Bing Ai
Hwa C. Lee
Thomas N. Millikan
Matthew C. Bernstein
Evan S. Day
PERKINS COIE LLP
Ai-ptab@perkinscoie.com
HLee@perkinscoie.com
TMillikan@perkinscoie.com
MBernstein@perkinscoie.com
EDay@perkinscoie.com

For Patent Owner:

James R. Foley
Timothy M. McCarthy
John Paniaguas
CLARK HILL PLC
jfoley@clarkhill.com
tmccarthy@clarkhill.com
jpaniaguas@clarkhill.com

APPENDIX E

Trials@uspto.gov
571-272-7822

Paper 41
Date: January 22, 2016

**UNITED STATES PATENT AND TRADEMARK
OFFICE**

**BEFORE THE PATENT TRIAL AND APPEAL
BOARD**

**Case IPR2014-01157
Patent 7,933,171 B2**

[Filed January 22, 2016]

HTC CORPORATION and HTC AMERICA, INC.,)
Petitioner,)
)
v.)
)
ADVANCED AUDIO DEVICES, LLC,)
Patent Owner.)
_____)

Before SCOTT A. DANIELS, CHRISTOPHER L.
CRUMBLY, and GEORGIANNA W. BRADEN,
Administrative Patent Judges.

CRUMBLY, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
35 U.S.C. § 318 and 37 C.F.R. § 42.73

I. INTRODUCTION

In this *inter partes* review trial, instituted pursuant to 35 U.S.C. § 314, Petitioner HTC Corporation and HTC America, Inc. (collectively, “HTC”) challenges the patentability of claims 1, 2, 5, 6, 7, 14, 17, 20, 23, 26, 28, 37, 40, 42, 43, and 45–48 of U.S. Patent No. 7,933,171 B2 (Ex. 1001, “the ’171 patent”), owned by Advanced Audio Devices, LLC (“AAD”).

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision, issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73, addresses issues and arguments raised during trial. For the reasons discussed below, we determine that HTC has met its burden to prove, by a preponderance of the evidence, that claims 1, 2, 5, 6, 7, 14, 17, 20, 23, 26, 28, 37, 40, 42, 43, and 45–48 of the ’171 patent are *unpatentable*.

A. Procedural History

On July 11, 2014, HTC filed a Petition requesting *inter partes* review of claims 1, 2, 5, 6, 7, 14, 17, 20, 23, 26, 28, 37, 40, 42, 43, and 45–48 of the ’171 patent. Paper 1, “Pet.” AAD filed a Patent Owner’s Preliminary Response. Paper 5. In a Decision on Institution of *Inter Partes* Review (Paper 6, “Dec.”), we instituted trial on claims 1, 2, 5, 6, 7, 14, 17, 20, 23, 26, 28, 37, 40, 42, 43, and 45–48 based on the following grounds:

1. Whether claims 1, 2, 5, 6, 7, 14, 17, 20, 26, 28, 37, 40, 42, 43, and 45–48 are unpatentable under 35 U.S.C. § 103 as having been obvious

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over the combined disclosures of Nathan '259¹ and Nathan '255;²

2. Whether claims 1, 2, 5, 6, 7, 14, 17, 20, 26, 28, 37, 40, 42, 43, and 45–48 are unpatentable under 35 U.S.C. § 103 as having been obvious over the combined disclosures of Sound Blaster,³ Lucente,⁴ Ozawa,⁵ and Hawkins;⁶ and
3. Whether claim 23 is unpatentable under 35 U.S.C. § 103 as having been obvious over the combined disclosures of Sound Blaster, Lucente, Ozawa, Hawkins, and Martin.⁷

Dec. 26.

Following institution, AAD filed a Patent Owner's Response to the Petition (Paper 13, "PO Resp."), and HTC filed a Reply (Paper 21, "Pet. Reply"). AAD also filed a contingent Motion to Amend pursuant to 37 C.F.R. § 42.121 (Paper 14, "Mot. Amend"), to which

¹ Ex. 1002, WO 96/12259 to Nathan et al. (Apr. 25, 1996).

² Ex. 1003, WO 96/12255 to Nathan et al. (Apr. 25, 1996).

³ Ex. 1004, Exhibit B, Sound Blaster 16 User Reference Manual. With Sound Blaster, HTC submits the Declaration of Kyle A. Miller, which states that Sound Blaster was publicly available "no later than the early spring of 1995." Ex. 1004 ¶ 13.

⁴ Ex. 1005, EP 0598547 A2 to Lucente et al. (May 25, 1994).

⁵ Ex. 1006, US 5,870,710 to Ozawa et al. (filed Jan. 22, 1997).

⁶ Ex. 1008, US 5,333,116 to Hawkins et al. (July 26, 1994).

⁷ Ex. 1007, US 5,355,302 to Martin et al. (Oct. 11, 1994).

HTC filed an Opposition (Paper 22, “Amend Opp.”), and AAD filed a Reply (Paper 25, “Amend Reply”).

HTC supported its Petition with the Declaration of Christopher Schmandt (Ex. 1009), and submitted a Rebuttal Declaration of Mr. Schmandt (Ex. 1014) with its Reply.

With its Patent Owner Response, AAD filed the Declaration of Joseph C. McAlexander III. Ex. 2006. HTC took the cross-examination of Mr. McAlexander via deposition. Ex. 1018. AAD also submitted the testimony of Peter J. Keller, a named inventor on the ’171 patent. Ex. 2007.⁸

AAD filed a Motion to Exclude Exhibit 1004 (Paper 27, “Mot. Exclude”), to which HTC filed an Opposition (Paper 29, “Exclude Opp.”) and AAD filed a Reply (Paper 33).

Oral hearing was requested by both parties, and a consolidated oral hearing involving this trial and related trials IPR2014-01154, IPR2014-01155, IPR2014-01156, and IPR2014-01158 was held on September 17, 2015. A transcript of the oral hearing is included in the record. Paper 40, “Tr.”

B. The ’171 Patent

The ’171 patent discloses an audio recording device that the specification terms a “music jukebox.” Ex. 1001, 1:16–17. According to the specification, existing recording devices permitted music to be recorded onto

⁸ Exhibit 2007 was the subject of a Motion to Seal (Paper 15), which was granted. Paper 31. A public, redacted version of Exhibit 2007 was also filed by AAD under the same exhibit number.

a compact disc in real time, but did not provide editing functions, the ability to store music on the recorder for making multiple copies of the disc, or the ability to customize easily the order in which tracks are recorded onto the disc. *Id.* at 2:28–62. The described music jukebox is said to address these issues, as well as permit a user to “audition” a stored audio track by listening to it before recording onto a compact disc. *Id.* at 3:23–39.

Various hardware components of the jukebox are described in the specification, including: audio inputs for receiving music in the form of analog signals (*id.* at 7:47–58); one or more data storage structures for storing and retrieving audio stored in digital form (*id.* at 9:7–16); and a drive for recording stored audio onto compact discs (*id.* at 13:55–57). The audio data stored in the memory permits audio tracks to be played back selectively, or “auditioned,” prior to recording. *Id.* at 4:32–41. The components of the music jukebox are contained in a housing having a display for providing information to a user, for example, through a graphical user interface. *Id.* at 4:48–5:8. The housing also comprises a plurality of push buttons for controlling operation of the device. *Id.* at 5:9–34.

The specification of the ’171 patent describes the operation of the device as permitting a user to create a “session,” which is a group of sound tracks selected from a master song list. *Id.* at 15:43–45, 16:51–59. A user also may reorder the songs within a session by selecting songs and moving them up or down within the session list. *Id.* at 16:18–28. The session then can be written to a compact disc. *Id.* at 15:39–43.

C. Illustrative Claims

Of the challenged original claims, only claim 1 is independent; all other challenged claims depend, directly or indirectly, from claim 1. The challenged independent claim reads as follows:

1. A personal digital stereo audio player configured to store sound tracks and play the stored sound tracks for personal enjoyment, said personal digital stereo audio player comprising:

a unitary, integral housing containing at least non-volatile memory and a processor connected to the non-volatile memory and configured for maintaining and selectively accessing and playing sound tracks stored in the non-volatile memory, the housing further comprising a display controlled by the processor, the processor being configured to cause the display to display a plurality of menus relating to a library of sound tracks, wherein all of the sound tracks in the library and their names are stored in the non-volatile memory of the personal digital stereo audio player, wherein the menus include at least one of a list of names of sound tracks and a list of groups of sound tracks;

a headphone jack in the housing;

an input in the housing for receiving audio data;

an amplifier operatively connected to the processor and the headphone jack and

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configured to amplify audio output signals produced during playing, which are transmitted to the headphone jack; and

at least one touch-operable control in the housing and in communication with the processor, wherein the processor is configured such that:

at least one of the at least one touch-operable control is touchable to allow selection from the menus which the processor causes to be displayed on the display,

at least one of the at least one touch-operable control is touchable to control the volume at which audio is played,

at least one of the at least one touch-operable control is touchable to pause a sound track which is being played,

at least one of the at least one touch-operable control is touchable to stop a sound track as it is being played and play the next sound track in a group of sound tracks,

at least one of the at least one touch-operable control is touchable to selectively power the personal digital stereo audio player on and off, and,

at least one of the at least one touch-operable control is touchable to select and play at least one of an individual sound track and a group of sound tracks through the headphone jack,

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wherein the personal digital stereo audio player is configured to display on the display at least one of time elapsed (ascending) and time remaining (descending) for the sound track being played,

wherein the personal digital stereo audio player is configured such that the non-volatile memory stores a library of sound tracks that is received by the input and which has been pre-selected by a user,

wherein the non-volatile memory comprises at least one of a Hard Disk Drive, solid state memory, and random address memory,

wherein the personal digital stereo audio player is configured to receive audio data through the input of the personal digital stereo audio player, whereby sound tracks become stored in the non-volatile memory as digital data; and

wherein the personal digital stereo audio player is configured such that at least one of the at least one touch-operable control is touchable to cause the personal digital stereo audio player to display on the display at least one of a list of names of sound tracks, and a list of groups of sound tracks,

wherein the personal digital stereo audio player is configured such that at least one of the at least one touch-operable control is touchable to cause the personal digital stereo audio player to play at least one of a specific sound

track and a group of sound tracks through the headphone jack, and

wherein the personal digital stereo audio player is configured such that at least one of the at least one touch-operable control is touchable to control the volume at which sound tracks are played through the headphone jack.

Id. at 20:56–21:67.

In its Motion to Amend, AAD proposed substitute claims 49–67, of which claim 49 is independent and a substitute for claim 1, if found unpatentable. Mot. Amend 2. Claims 50–67 are proposed as substitutes for dependent claims 2, 5, 6, 7, 14, 17, 20, 23, 26, 28, 37, 40, 42, 43, and 45–48, respectively. Proposed claim 49 reads as follows, with underlined material indicating language added to original claim 1:

49. A personal digital stereo audio player configured to store sound tracks and play the stored sound tracks for personal enjoyment, said personal digital stereo audio player comprising:

a unitary, integral housing containing at least non-volatile memory and a processor connected to the non-volatile memory and configured for maintaining and selectively accessing and playing sound tracks stored in the non-volatile memory, the housing further comprising a display controlled by the processor, the processor being configured to cause the display to display a plurality of menus relating to a library of sound tracks, wherein all of the sound tracks in the library and their names are stored in the non-

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volatile memory of the personal digital stereo audio player,

wherein the menus include at least one of a list of names of sound tracks and a list of groups of sound tracks;

a headphone jack in the housing;

an input in the housing for receiving audio data;

an amplifier operatively connected to the processor and the headphone jack and configured to amplify audio output signals produced during playing, which are transmitted to the headphone jack; and

at least one touch-operable control in the housing and in communication with the processor,

wherein the processor is configured such that:

at least one of the at least one touch-operable control is touchable to allow selection from the menus which the processor causes to be displayed on the display,

at least one of the at least one touch-operable control is touchable to control the volume at which audio is played,

at least one of the at least one touch-operable control is touchable to pause a sound track which is being played,

at least one of the at least one touch-operable control is touchable to stop a sound track

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as it is being played and play the next sound track in a group of sound tracks,

at least one of the at least one touch-operable control is touchable to selectively power the personal digital stereo audio player on and off, and,

at least one of the at least one touch-operable control is touchable to select and play at least one of an individual sound track and a group of sound tracks through the headphone jack,

wherein the personal digital stereo audio player is configured to display on the display at least one of time elapsed (ascending) and time remaining (descending) for the sound track being played,

wherein the personal digital stereo audio player is configured such that the non-volatile memory stores a library of sound tracks that is received by the input and which has been pre-selected by a user,

wherein the non-volatile memory comprises at least one of a Hard Disk Drive, solid state memory, and random address memory,

wherein the personal digital stereo audio player is configured to receive audio data through the input of the personal digital stereo audio player, whereby sound tracks become stored in the non-volatile memory as digital data; and

wherein the personal digital stereo audio player is configured such that at least one of the at least one touch-operable control is touchable to cause the personal digital stereo audio player to display on the display at least one of a list of names of sound tracks, and a list of groups of sound tracks,

wherein the personal digital stereo audio player is configured such that at least one of the at least one touch-operable control is touchable to cause the personal digital stereo audio player to play at least one of a specific sound track and a group of sound tracks through the headphone jack, and

wherein the personal digital stereo audio player is configured such that at least one of the at least one touch-operable control is touchable to control the volume at which sound tracks are played through the headphone [jack],⁹

wherein the personal digital stereo audio player is configured such that after sound tracks are stored in the non-volatile memory:

a session is addable using at least one touch-operable control on the housing;

⁹ Original claim 1 concluded with the word “jack,” but proposed substitute claim 49 does not include the word. AAD states that limitations are only being added to the claim (Mot. Amend 2), therefore, we presume the word “jack” was inadvertently omitted. Our analysis of the Motion to Amend would be the same, whether the word is included or not.

the session is nameable using at least one touch-operable control on the housing;

sound tracks are addable to the session using at least one touch-operable control on the housing;

sound tracks are deleteable from the session using at least one touch-operable control on the housing;

wherein an order of the sound tracks in the session is customizable using at least one touch-operable control on the housing;

wherein the session is re-nameable using at least one touch-operable control on the housing; and

wherein the session is deleteable using at least one touch-operable control on the housing.

Mot. Amend, 14–16.

II. DISCUSSION

A. Claim Construction

For purposes of our Decision to Institute, we analyzed each claim term in light of its broadest reasonable interpretation, as understood by one of ordinary skill in the art and as consistent with the specification of the '171 patent. 37 C.F.R. § 42.100(b); see *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1278–79 (Fed. Cir. 2015), *cert. granted*, *Cuozzo Speed Techs. LLC v. Lee*, 84 U.S.L.W. 3218 (U.S. 2016). In the

Decision to Institute, we construed the terms *sound tracks* and *selectively accessing* as follows:

<i>sound tracks</i>	digital or analog signals, or audio data
<i>selectively accessing</i>	obtaining from a number or group by fitness or preference

See Dec. 8–10 (citing 37 C.F.R. § 42.100(b)).

During the course of the trial, HTC disputed our construction of *selectively accessing*, arguing that “by fitness or preference” is found only in a single dictionary definition submitted by AAD, and is inconsistent with the broadest reasonable interpretation of the term. Pet. Reply 1–2. We disagree. Interpreting *selectively accessing* as merely “obtaining from a number or group” would encompass, for example, random selection of sound tracks. This is inconsistent with the specification of the ’171 patent, which emphasizes the user’s choice in selecting sound tracks. See, e.g., Ex. 1001, 12:3–6 (“[A]n operating system . . . enable[s] the user to focus on selection and ordering of audio material.”). We consider HTC’s proffered construction to be unreasonably broad given these disclosures. See *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1298 (Fed. Cir. 2015) (“A construction that is ‘unreasonably broad’ and which does not ‘reasonably reflect the plain language and disclosure’ will not pass muster.”).

For these reasons, we see no reason to alter the constructions of the claim terms as set forth above, and

we incorporate our previous analysis in the Decision to Institute for purposes of this Decision.

B. Patentability of Original Claims

1. *Alleged Obviousness of Claims 1, 2, 5, 6, 7, 14, 17, 20, 26, 28, 37, 40, 42, 43, and 45–48 in View of Nathan '259 and Nathan '255*

The elements of an obviousness analysis under 35 U.S.C. § 103 were set forth by the Supreme Court as follows: “the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved.” *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). Furthermore, as a guard against hindsight reasoning, we must “withhold judgment on an obviousness challenge until [we] consider[] all relevant evidence, including that relating to the objective considerations” such as commercial success or long-felt need. *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1079 (Fed. Cir. 2012). While we may apply “an expansive and flexible approach” to the question of obviousness, and take the sequence of the *Graham* factors in a different order depending on the particular case, “the factors continue to define the inquiry that controls.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 407, 415 (2007).

We note, at the outset, that AAD does not contest that a person of ordinary skill in the art would have combined the disclosures of Nathan '259 and Nathan '255. Tr. 80:16–24. Rather, AAD disputes HTC’s interpretation of the Nathan references, and whether a person of ordinary skill in the art would have

understood them to disclose all elements of the challenged claims. PO Resp. 9. Upon review of HTC's asserted reasons to combine the Nathan references (Pet. 17–18), Mr. Schmandt's testimony on that point (Ex. 1009 ¶ 82), and the lack of challenge from AAD, we find that a person of ordinary skill would have had reason to combine the Nathan references in the manner asserted.

a. Disclosures of the Nathan References

The primary dispute between the parties on the Nathan references is over what the references actually disclose. According to HTC, the jukebox systems described in the Nathan systems permit purchase and download of songs from a remote server, into a master song list stored locally on the jukebox. Pet. 15–17. A user may then select songs from the master song list into a queue; after the songs are played, they are deleted from the queue, but not the local storage. *Id.* at 27. By contrast, AAD asserts that the jukeboxes of Nathan permit users to purchase the right to play a song only once; when the songs are downloaded, they are immediately added to the queue, then deleted from local storage immediately after they are played. PO Resp. 10–12. According to AAD, therefore, a user of the Nathan system has no control over the order of songs in the queue other than the order in which the songs were purchased. *Id.* at 27. Nor does Nathan, in AAD's reading, provide any library distinct from the queue. *Id.* at 20–21 (“The queue is *not* a subset of an internal music library; the queue *is* the music library.” (citing Ex. 2006 ¶ 62)).

In our Decision to Institute, we determined that the record at that time did not support AAD's interpretation

of the Nathan references. Rather, we concluded that “it appears that Nathan ’259 discloses deleting songs from the *queue* once they are played, not from the music library altogether.” Dec. 15 (“[w]hen the selection has been reproduced in its entirety, it is removed from the queue file” (quoting Ex. 1002 ¶ 86)). We also determined that the record supported the conclusion that Nathan ’259 discloses a “new selections acquisition mode” (“NSAM”) for ordering and downloading new music onto the jukebox. Dec. 15; Ex. 1002 ¶¶ 64–73. A “selection graphics screen” then permits a user to add these newly acquired songs to a queue for playback. Ex. 1002 ¶ 74. We concluded that Nathan ’259 appeared to describe a master song list to which songs are added via the NSAM, as well as the ability to create a queue of songs selected from the master song list using the selection graphics screen. Dec. 15.

AAD’s Response contends that our interpretation of Nathan ’259 was in error (PO Resp. 10), and Mr. McAlexander testifies in support of AAD’s interpretation of the reference. Ex. 2006 ¶¶ 32–65. AAD raises several issues regarding the disclosure of Nathan ’259, which it contends are inconsistent with HTC’s interpretation of the reference.

First, AAD asks why, if songs are not deleted entirely from the device immediately following playback, Nathan ’259 does not disclose some sort of “delete” function so that users can clear songs from the memory. PO Resp. 15–16. HTC responds by noting that Nathan ’259, as a patent document, likely is focused on the novel aspects of the disclosed device as opposed to known functions such as deleting files. Pet. Reply 10–11.

Prior art references are evaluated according to what they would disclose to a person of ordinary skill in the art. *See Sundance, Inc. v. DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1361 n.3 (Fed. Cir. 2008). As such, the fact that a reference is silent regarding a particular feature only signifies exclusion of that feature if a person of ordinary skill would understand silence to imply exclusion. AAD provides no compelling evidence this is the case with Nathan '259. Mr. McAlexander, AAD's expert, testifies that there is no disclosure of a delete function in Nathan '259, but does not state that he, or any other person of ordinary skill, would interpret this silence to imply that a delete function is excluded. Ex. 2006 ¶ 62. Furthermore, we note that Nathan '255 explicitly discloses a manual delete function for removing little-known titles. Ex. 1003 ¶ 7. We do not find the absence of an explicit "delete function" in Nathan '259 to imply that the Nathan jukebox does not have such a common and known function.

Second, AAD notes that Nathan '259 discloses a system having as little as 32 megabytes of RAM, and asks why such a small amount of memory is contemplated if a local music library is stored. PO Resp. 17. HTC responds by noting that the 32 megabyte capacity is a minimum, and Nathan '259 puts no upper limit on the number of songs that can be stored. Pet. Reply 11. Furthermore, HTC notes that Nathan '255 discloses that its device may store a "minimum of 350 to 400 titles." *Id.* at 12 (citing Ex. 1003 ¶ 7). We consider HTC's interpretation on this point to be persuasive, and do not understand the disclosure of a 32 megabyte minimum memory capacity to be inconsistent with our understanding of the Nathan references.

Third, AAD points out a passage in Nathan '259 that states that a button “allows validation of the selection or selections for initiating their introduction into the queue,” (Ex. 1002 ¶ 74) and argues that “validation” refers to purchase of a song. PO Resp. 11–12, 20. Therefore, under AAD’s theory, purchase of a song results in immediate addition to the queue. *Id.* HTC contends that such an interpretation would render Nathan '259’s two modules redundant, as there would be no reason to have both a “new selections acquisition module” (“NSAM”) and a “selection graphics screen,” if songs are directly added from the NSAM to the queue. Pet. Reply 9–10. We agree with HTC, and additionally note that Nathan '259 uses the word “validate” in other contexts meaning “to confirm.” Ex. 1002 ¶ 75 (“validates his choice”), ¶ 114 (“validates the credit card”). We, therefore, interpret “validation of the selection” in paragraph 74 of Nathan '259 to refer to confirming that a song will be added to the queue, rather than purchase of a song.

At oral argument, AAD discussed these issues, and raised several other questions regarding the disclosure of Nathan '259 which had not been raised previously in briefing. Tr. 53–54. Even if we were to consider such arguments properly raised,¹⁰ we do not find them persuasive. Based on our review of the Nathan references in light of the expert testimony, our interpretation of the Nathan disclosures has not changed.

¹⁰ “A party may . . . only present [at oral hearing] arguments relied upon in the papers previously submitted. No new evidence or arguments may be presented at the oral argument.” *Office Patent Trial Practice Guide*, 77 Fed. Reg. 48,756, 48,768 (Aug. 14, 2012).

We find that Nathan '259 discloses a jukebox that permits the downloading of song tracks via its NSAM. Ex. 1002 ¶¶ 64, 73 (“The display of FIG. 9 allows the user to access the new selections acquisition mode in connection with the NSAM module. . . . Button (1038) allows ordering of the selection which is then downloaded according to the above described mode.”). A different “selection graphics screen” shows the songs that have been downloaded, permits the user to sort the songs according to different criteria, and gives the user the ability to add songs to a queue. *Id.* ¶ 74 (“Button (124) allows validation of the selection or selections for initiating their introduction into the queue or their immediate and successive performance if the queue is empty.”). Contrary to AAD’s argument, we see no reason to conclude that when a file is purchased and downloaded, it is immediately added to the queue, and deleted from local memory immediately after it is played. Nor do we find that the Nathan systems only permit the order of the queue to be determined by purchase order, as opposed to the order in which the songs are selected from the library of all downloaded songs.

b. Analysis of Obviousness Over Nathan '259 and Nathan '255

i. Claim 1

There is no dispute between the parties that the Nathan references disclose several of the elements found in the independent claims, of which we discuss claim 1 as representative. We find that Nathan '259 discloses, for example: a unitary, integral housing (“box,” Ex. 1002 ¶ 46); non-volatile memory and a connected processor (“RAM,” *id.* ¶ 51); a headphone

jack (“stereo audio output,” *id.* ¶ 42); an input for receiving audio data (“telecommunications interface,” *id.* ¶ 3); at least one touch-operable control (“a set of buttons,” *id.* ¶ 46); and the display of at least one of time elapsed and time remaining for the sound track being played (“reproduction screen displays . . . remaining time,” *id.* ¶ 59). Nathan ’255 additionally discloses an amplifier (“integrated amplified loudspeakers,” Ex. 1003 ¶ 27). AAD does not contest these elements.

Furthermore, the combination of Nathan ’259 and Nathan ’255 discloses a digital display in the housing, configured to display a plurality of menus relating to a library of soundtracks. As AAD recognizes, Nathan ’255 discloses a touchscreen display within its housing for controlling the jukebox. Ex. 1003 ¶ 24; PO Resp. 34. The touchscreen is a 14 inch “Intelli Touch” screen that “allows display of various selection data used by the customers.” Ex. 1003 ¶ 24. Mr. Schmandt, HTC’s expert and a founder of the MIT Media Lab with more than thirty years of experience in the media technology field, testifies that “[a] person skilled in the art would be motivated to implement the touch screen disclosed in Nathan 255 on the LCD screen . . . taught by Nathan 259, to allow more intuitive control of the jukebox.” Ex. 1009 ¶¶ 12, 13, 101. We, therefore, conclude that it would have been obvious to include the touchscreen of Nathan ’255 in the housing of Nathan ’259, to display the modules of Nathan ’259 such as the selection graphics screen. *See* Ex. 1002 ¶ 74. The display in the housing would be capable of displaying a plurality of menus, wherein the menus include at least one of a list of names of song tracks, as required by claim 1.

The parties' dispute centers on two additional elements. AAD first argues that the references do not disclose selectively accessing and playing soundtracks stored in the non-volatile memory. PO Resp. 34–35. To support this argument, AAD relies on its interpretation of Nathan as permitting only “single-play” downloads of songs, with immediate introduction of downloaded songs into a queue that cannot be selectively accessed. *Id.* As discussed above, we do not find this interpretation of Nathan '259's disclosure to be the correct one.

Given our finding that Nathan '259 discloses the ability to select songs to download to local storage, followed by the ability to select songs for introduction into a queue, we find that the Nathan references disclose the ability to selectively access songs stored in memory. The songs downloaded into Nathan's local memory become “songs stored in memory,” and the selection of songs into a queue is “selectively accessing” those songs. This satisfies our construction of *selectively accessing*, originally proposed by AAD, of “obtaining from a number or group by fitness or preference.” *See supra* Section II.A.

AAD also argues that the Nathan references do not disclose a touch-operable control touchable to play at least one of an individual sound track and a group of sound tracks stored in the non-volatile memory. PO Resp. 35–36. As outlined above, however, we find that Nathan '259 discloses buttons that can be used to introduce songs into its queue. Ex. 1002 ¶¶ 46, 66, 74 (“Button (124) allows validation of the selection or selections for initiating their introduction into the queue.”). Alternatively, we find that Nathan '255

discloses a touchscreen that may be used to “allow[] display of various selection data used by the customers.” Ex. 1003 ¶ 24. Once introduced to the queue, the song will be played; if there are no songs in the queue, the song plays immediately. Ex. 1002 ¶ 74.

For these reasons, we find that the combination of Nathan '259 and Nathan '255 teaches each limitation of claim 1. AAD's arguments to the contrary are not persuasive.

ii. Dependent Claims

AAD does not address separately the limitations of dependent claims 2, 14, 17, 20, 26, 37, 40, 42, 43, and 45–48. *See generally* PO Resp.; *see* 37 C.F.R. § 42.23(a). These claims recite additional limitations, such as a touch-operable control that is touchable to power the device on or off (claim 2), or to pause the playing of the sound track (claim 14). After consideration of the language recited in claims 2, 14, 17, 20, 26, 37, 40, 42, 43, and 45–48 of the '171 patent, the Petition, the Patent Owner Response, and Petitioner's Reply, as well as the relevant evidence discussed in those papers, we find that the additional elements recited in the dependent claims are taught or suggested by the combination of Nathan '259 and Nathan '255, or that a person of ordinary skill in the art would have modified the Nathan system to add such features. We, therefore, conclude that HTC has met its burden of showing that each element of challenged dependent claims 2, 14, 17, 20, 26, 37, 40, 42, 43, and 45–48 is taught by the combination of Nathan '259 and Nathan '255. As discussed above, we also find that a person of ordinary skill in the art would have had reason to combine the Nathan references.

AAD does address dependent claims 5, 6, 7, and 28 specifically, and argues that they further distinguish over the Nathan references. PO Resp. 36–38. Claim 5 recites a touch-operable control touchable to delete a sound track from the non-volatile memory; claims 6 and 7, dependent from claim 5, also incorporate this limitation. AAD argues that “[n]one of the displays disclosed in either Nathan reference provides a button or control on the housing which can be touched to delete a sound track.” *Id.* at 37. As we noted above, however, Nathan ’255 discloses a manual delete function for managers to delete little-heard tracks. Ex. 1003 ¶ 7. Furthermore, Nathan ’255 discloses that its touch screen displays “command and management control information used by the system manager or owner,” and that a keyboard may also be connected to the system for that purpose. *Id.* ¶ 24. Therefore, we are satisfied that Nathan ’255 teaches or suggests the use of a IPR2014-01157 Patent No. 7,933,171 B2 23 touch-operable control (touchscreen or keyboard) to delete sound tracks, as required by claims 5, 6, and 7.

AAD also argues that the Nathan references fail to disclose claim 28’s requirement of “at least one touch-operable control . . . touchable to cause the personal digital stereo audio player to select and play at least one of an individual song and a group of songs stored in its non-volatile memory.” PO Resp. 37–38. To support this argument, AAD again relies on its interpretation of the Nathan references as disclosing only a single-play system in which sound tracks are immediately introduced into the queue and automatically deleted once played. *Id.* As discussed previously, we do not find the Nathan references to disclose such a system. Rather, Nathan ’259 discloses acquiring new songs

through its NSAM, which are locally stored and then may be added to the queue using the selection graphics screen. “Button (124),” which “allows validation of the selection or selections for initiating their introduction into the queue,” is a touch-operable control touchable to select and play an individual song or group of songs, namely the queue. *See* Ex. 1002 ¶ 74.

For these reasons, we do not consider persuasive AAD’s arguments regarding claims 5, 6, 7, or 28. Rather, we agree with HTC (Pet. 30–31, 33) and find that the limitations of the challenged dependent claims are taught or suggested by the combined disclosures of the Nathan references.

iii. Objective Indicia of Nonobviousness

Factual inquiries for an obviousness determination include secondary considerations based on evaluation and crediting of objective evidence of nonobviousness. *See Graham*, 383 U.S. at 17. Notwithstanding what the teachings of the prior art would have suggested to one of ordinary skill in the art at the time of the invention, the totality of the evidence submitted, including objective evidence of nonobviousness, may lead to a conclusion that the challenged claims would not have been obvious to one of ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984). Secondary considerations may include any of the following: long-felt but unsolved needs, failure of others, unexpected results, commercial success, copying, licensing, and praise. *See Graham*, 383 U.S. at 17–18; *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007); *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1349, 1355 (Fed. Cir. 2012).

To be relevant, evidence of nonobviousness must be commensurate in scope with the claimed invention. *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011) (citing *In re Tiffin*, 448 F.2d 791, 792 (CCPA 1971)); *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998). In that regard, in order to be accorded substantial weight, there must be a nexus between the merits of the claimed invention and the evidence of secondary considerations. *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995). “Nexus” is a legally and factually sufficient connection between the objective evidence and the claimed invention, such that the objective evidence should be considered in determining nonobviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). The burden of showing that there is a nexus lies with the patent owner. *In re Paulsen*, 30 F.3d 1475, 1482 (Fed. Cir. 1994); *Demaco*, 851 F.3d at 1392.

AAD argues that the “clear commercial success” of the invention claimed in the ’171 patent demonstrates its nonobviousness, notwithstanding the disclosures of the Nathan references. PO Resp. 48–50. To demonstrate this alleged commercial success, AAD submits the testimony of Peter Keller, supported by a number of confidential licenses which are said to have generated more than \$10,000,000 of gross revenue. *Id.* at 48. Mr. Keller describes the “AAD Family of Patents,” which includes the ’171 patent, other related United States Patents, and foreign counterparts. Ex. 2007 ¶¶ 5, 8. Mr. Keller testifies that, for each licensee, he ensured that “at least one commercial product sold” was covered by “at least one claim of at least one patent” of the family. *Id.* ¶ 11.

In cases in which the proffered evidence of commercial success is licenses, rather than sales of products embodying the invention, there is a danger that the licenses may have been taken only because they were cheaper than defending an infringement suit. See *EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 908 (Fed. Cir. 1985). In such situations, nexus between the commercial success and the patent cannot be inferred; rather, “affirmative evidence of nexus” is required. *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1324 (Fed. Cir. 2004). In other words, a patent owner must demonstrate “a nexus between the *merits of the invention* and the licenses of record,” otherwise the licenses are to be accorded little weight. *In re GPAC Inc.*, 57 F.3d at 1580 (emphasis added).

HTC notes that each of the licenses listed by Mr. Keller includes at least two patents that explicitly claim a compact disc recorder, an element not present in the claims of the '171 patent. Pet. Reply 23–24. HTC also contends that AAD fails to demonstrate any link between the invention of the '171 patent and the taking of the license; for example, AAD provides no apportionment of revenues to show the amount attributable to the '171 patent, as opposed to the other members of the licensed family. *Id.* at 24.

We agree with HTC that the evidence provided by AAD does not establish a sufficient link between the merits of the invention claimed in the '171 patent and the taking of the licenses. Although Mr. Keller notes that some of the provided licenses were taken in situations where there was no pending litigation against the licensee (Ex. 2007 ¶ 9), he does not address

whether litigation had been *threatened* against those parties. We, therefore, cannot determine whether the licenses reflect the commercial value of the invention claimed in the '171 patent, or whether they were taken merely to avoid the cost of litigation, either pending or threatened. Absent a persuasive showing of nexus, AAD's evidence of licensing fails to establish commercial success.

We conclude that the evidence of objective indicia of nonobviousness is insufficient to overcome the evidence of obviousness over the combined Nathan references.

iv. Conclusion on Obviousness

For the foregoing reasons, HTC has proven by a preponderance of the evidence that Nathan '255 and Nathan '259 teach all elements of challenged claims 1, 2, 5, 6, 7, 14, 17, 20, 26, 28, 37, 40, 42, 43, and 45–48, and that a person of ordinary skill in the art would have had reason to combine the disclosures. Furthermore, we conclude that such a combination would have been within the level of ordinary skill in the art, as evidenced by the prior art of record. We, therefore, conclude that claims 1, 2, 5, 6, 7, 14, 17, 20, 26, 28, 37, 40, 42, 43, and 45–48 would have been obvious at the time of the invention, and thus, are unpatentable under 35 U.S.C. § 103.

2. Alleged Obviousness of Claims 1, 2, 5, 6, 7, 14, 17, 20, 26, 28, 37, 40, 42, 43, and 45–48 Over Sound Blaster, Lucente, Ozawa, and Hawkins

We instituted trial to determine whether claims 1, 2, 5, 6, 7, 14, 17, 20, 26, 28, 37, 40, 42, 43, and 45–48 would have been obvious over the combined disclosures of Sound Blaster, Lucente, Ozawa and Hawkins,

finding persuasive HTC's unchallenged analysis in its Petition of how the elements of the challenged claims are taught by the references. Dec. 18–20, 24. In so doing, we noted that AAD did not dispute the alleged disclosures of the references, but instead disputed that Sound Blaster qualified as prior art to the '171 patent, and argued that a person of ordinary skill in the art would have not combined the references. *Id.* at 19–20. In its Response, AAD again does not address the disclosures of the references, and instead argues that the references are not combinable because the combined teachings would produce an inoperable device. PO Resp. 38–47. According to AAD, to combine Sound Blaster with the teachings of Lucente would require a substantial reconstruction and redesign of the elements in Lucente. *Id.* at 40–47. Thus, AAD concludes that the combination of Sound Blaster and Lucente and any other prior art would not have rendered the challenged claims obvious. *Id.* at 47. In addition, AAD moved to exclude Exhibit 1004 (Miller Declaration, Miller CV, and the Sound Blaster reference). Mot. Exclude 1.

Sound Blaster discloses audio software with a graphical user interface designed for organizing and playing back audio files. Ex. 1004, 2-1, 2-7.¹¹ Sound Blaster also discloses the ability to group sound tracks into playlists. *Id.* at 2-20–2-28, Fig. 2-8.

¹¹ HTC did not add page numbers to the Sound Blaster reference, as required by our Rules. *See* 37 C.F.R. § 42.63(d)(2)(i). We refer to the page numbers of the original Sound Blaster manual when citing the reference.

Lucente discloses a “pen-based computer with an integral flat panel display and digitized screen.” Ex. 1005 1:3–4. The housing of Lucente includes an audio input and output, processor, and memory. *Id.* at 7:39–49, 12:2–13. According to HTC, the hardware of Lucente is capable of running the Sound Blaster software. Pet. 38.

Ozawa discloses a portable audio device that can download music from a network service center and save audio files to a hard drive in the device. Ex. 1006, 4:48–53. The Ozawa device has push-button controls on its face for controlling the operation of the device, such as playing and pausing music. *Id.* at 5:30–33.

Hawkins discloses a computing device in the form of a “combination laptop and pad computer.” Ex. 1008, Abstract. HTC contends that Hawkins discloses that the computing device has an on/off control, and that a person of ordinary skill in the art would recognize the benefit of having an on/off control. Pet. 42.

At oral hearing, AAD’s counsel did not concede that Sound Blaster, Lucente, Ozawa, and Hawkins disclose all elements of the claims if combined, but acknowledged that AAD’s briefs had provided no argument on that point. Tr. 90–91. Specifically, AAD did not provide any evidence or testimony contrary to the evidence and testimony provided by Petitioner regarding the disclosures of Sound Blaster, Lucent, and Ozawa. Our Scheduling Order in this case cautioned AAD that “any arguments for patentability not raised in the [Patent Owner Response] will be deemed waived.” Paper 7, 3. The Board’s Trial Practice Guide, furthermore, states that the Patent Owner Response “should identify all the involved claims that are

believed to be patentable *and state the basis for that belief.*” *Office Patent Trial Practice Guide*, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012) (emphasis added). As the Board has stated, our governing statute and Rules “clearly place some onus on the patent owner, once trial is instituted, to address the material facts raised by the petition as jeopardizing patentability of the challenged claims.” *Johnson Health Tech Co. v. Icon Health & Fitness, Inc.*, Case IPR2013-00463, slip op. at 12 (PTAB Jan. 29, 2015) (Paper 41). By addressing only the combination of the references, AAD conveyed to the Board and HTC that the only bases for its belief that the challenged claims are patentable were (i) whether Sound Blaster and Lucente were combinable and (ii) whether Sound Blaster is admissible.

In our Decision to Institute, we concluded that HTC had made a threshold showing that Sound Blaster, Lucente, Ozawa, and Hawkins taught all the limitations of the challenged claims, sufficient for us to conclude that there was a reasonable likelihood that HTC would prevail in showing that the challenged claims were obvious over the combined references. Dec. 24. We must now determine whether the preponderance of the evidence of record supports a finding of obviousness. 35 U.S.C. § 316(e). Given AAD’s waiver of argument that the combination of references does not teach all elements of the challenged claims, the record now contains the same arguments and evidence on that point as it did at the time of our Decision to Institute. *See* 37 C.F.R. § 42.23(a). After careful consideration of the entire record, including the Petition, Patent Owner’s Response, and all evidence submitted by the parties, we find that the preponderance of the evidence of record supports a

finding that HTC has set forth how all limitations of the challenged claims are taught by Sound Blaster, Lucente, Ozawa, and Hawkins. Pet. 36–56; Ex. 1009 ¶¶ 162–213 (Schmandt declaration including claim charts). We, therefore, turn to the two remaining issues on this ground of unpatentability: AAD’s Motion to Exclude Sound Blaster, and whether a person of ordinary skill would have had reason to combine Sound Blaster, Lucente, Ozawa, and Hawkins.

a. Motion to Exclude Exhibit 1004

Exhibit 1004 contains two related documents: (1) the Declaration of Kyle A. Miller, attesting to the public availability of the Sound Blaster reference; and (2) the Sound Blaster reference itself. Mr. Miller testifies that Sound Blaster is a copy of a Sound Blaster 16 User Reference Manual he received during the course of his employment at Creative Labs, “no later than the early spring of 1995.” Ex. 1004 ¶ 19. According to Mr. Miller, his employer provided him with commercial versions of Creative Labs’ most popular products, including the Sound Blaster 16 Audio Card. *Id.* ¶ 12. Mr. Miller testifies that the product he received included the User’s Manual, and would have been the same documentation provided to a commercial purchaser of the product. *Id.* ¶ 14.

AAD moves to exclude Exhibit 1004 on several grounds. Mot. Exclude 1. Pursuant to our Rules, a motion to exclude evidence must be filed to preserve any previously-made objections to evidence. 37 C.F.R. § 42.64(c). The motion must identify where in the record the objections were made, and must explain the objections. *Id.*

We note that AAD does not identify where in the record its objections to evidence were made prior to their being the basis of the Motion to Exclude, in violation of Rule 42.64(c). Indeed, the Board is aware of AAD's prior objections only because they were quoted in HTC's opposition to the Motion to Exclude. For this reason, AAD's Motion is procedurally deficient, and may be denied on this basis alone.

Even if we were to overlook the procedural deficiency of the motion itself, we would not exclude Exhibit 1004. First, AAD argues that the Miller Declaration is hearsay. Mot. Exclude 4–5. It does not appear that AAD previously made this objection, as required by our Rules. According to HTC, the only hearsay-based objection made by AAD was that Exhibit B (the Sound Blaster reference itself) did not satisfy the business records exception to the hearsay rule. Exclude Opp. 2. Furthermore, even if AAD had preserved such an objection, we do not consider the Miller Declaration to be hearsay, as it is not an out-of-court statement. In an *inter partes* review, direct testimony is typically provided via affidavit, with cross-examination taken via deposition. 37 C.F.R. § 42.53(a). In this respect, testimony via affidavit before the Board is distinguishable from the affidavits submitted in District Court cases cited by AAD, such as *Hilgraeve, Inc. v. Symantec Corp.*, 271 F. Supp. 2d 964 (E.D. Mich. 2003). See *Polaris Wireless, Inc. v. TruePosition, Inc.*, Case IPR2013-00323, slip op. at 41 (PTAB Nov. 3, 2014) (Paper 62).

Second, AAD objects to the copyright date on the Sound Blaster reference as hearsay. Mot. Exclude 5–8. Again, AAD has not established that it previously

made such an objection, other than the general objection to “Exhibit B” as not being within the business records exception. This is insufficient to put HTC on notice that AAD was specifically objecting to the copyright date of the reference as hearsay. *See* 37 C.F.R. § 42.64(b)(1) (“The objection must identify the grounds for the objection with sufficient particularity to allow correction in the form of supplemental evidence.”). In any event, we consider the exclusion of the copyright date to be moot, as we do not rely on the copyright date to reach our determination that Sound Blaster was publicly available. Mr. Miller’s testimony that Sound Blaster was publicly available rests on his personal recollection, and merely cites the copyright date as corroboration for that recollection. Ex. 1004, ¶ 17.

Third, AAD contends that Sound Blaster is not within the business records exception to the hearsay rule. Mot. Exclude 8. While it does appear that AAD previously made this objection, the Motion does not cite to where in the record the objection was made, as required by our Rule 42.64(c). Nevertheless, the application of a hearsay exception is irrelevant, as Sound Blaster is not offered for a hearsay purpose. As a prior art reference, Sound Blaster is offered to show what information it would have conveyed to a person of ordinary skill in the art; the truth of the contents of Sound Blaster is not relevant to this inquiry. *See Joy Techs., Inc. v. Manbeck*, 751 F. Supp. 225, 233 n.2 (D.D.C. 1990), *aff’d*, 959 F.2d 226 (Fed. Cir. 1992); *see EMC Corp. v. Personal Web Techs., LLC*, Case IPR2013-00085, slip op. at 66 (PTAB May 15, 2014) (Paper 73) (“[A] prior art document submitted as a ‘printed publication’ under 35 U.S.C. § 102(b) is offered

simply as evidence of what it described, not for proving the truth of the matters addressed in the document.”).

Finally, AAD seeks to exclude Sound Blaster as not authenticated, as there is no evidence to authenticate the reference “except the inadmissible Miller Declaration.” Mot. Exclude 8–9. We have not found the Miller Declaration to be inadmissible, however. To authenticate an item of evidence, a party must “produce evidence sufficient to support a finding that the item is what the proponent claims it is.” Fed. R. Evid. 901(a). The Miller Declaration provides sufficient evidence to support the finding that Sound Blaster is what HTC contends it to be: a document distributed to the public with the commercially available version of the Sound Blaster 16 Audio Card.

For these reasons, even if AAD’s Motion to Exclude were procedurally proper, we would not exclude Exhibit 1004, including the Sound Blaster reference, from the record.

b. Combinability of References

HTC contends that a person of ordinary skill in the art would have had reason to combine Sound Blaster, Lucente, Ozawa, and Hawkins. Pet. 41–42. First, HTC argues that the references pertain to personal computing devices with similar hardware, for similar purposes of reproducing audio. *Id.* at 41. In addition, HTC argues the devices of Lucente, Ozawa, and Hawkins are directed to portable devices, and HTC asserts that a person of ordinary skill in the art would have combined the software of Sound Blaster with these devices to “improv[e] multimedia user experience.” *Id.* at 41–42.

To the contrary, AAD argues that combining Sound Blaster with Lucente would have been outside the level of ordinary skill at the time of the invention. PO Resp. 43–44. AAD first focuses on hardware incompatibilities between the tablet computer of Lucente and the software of Sound Blaster. *Id.* Citing the McAlexander Declaration, AAD argues that “[t]he amount of skill required to make the Lucente device compatible with the Sound Blaster software would substantially exceed the level of ordinary skill.” *Id.* at 38. Mr. McAlexander testifies that modification of the Lucente computer to run Sound Blaster would include such drastic steps as “redesign of the battery and thermal management within the housing to provide the designed battery operating time while preventing overheating of the internal circuits” (Ex. 2006 ¶ 25) and redesign of the “entire interface structure of the Sound Blaster 16 audio card . . . from an ISA configuration to a different bus standard, including firmware re-write to conform to the different bus protocol.” *Id.* ¶ 27.

Mr. McAlexander also testifies that the Sound Blaster software required a Windows 3.1 operating system, which allegedly was incompatible with the “pen-based computer” disclosed in Lucente. *Id.* ¶ 28. For example, Mr. McAlexander points out Lucente’s recitation of the ability to rotate the display to permit either right-handed or left-handed operation, and states that such a functionality was not provided in Windows 3.1. *Id.* ¶ 30.

In response, HTC argues that AAD focuses too heavily on the physical combinability of the devices disclosed in the references, as opposed to whether the teachings of the references would be combined. Pet.

Reply 17–18. HTC submits the testimony of Mr. Schmandt, who testifies that a person of ordinary skill in the art would have recognized that the functionality of the Sound Blaster software (such as storing and managing audio files, including making playlists) would provide similar benefits in a portable touchscreen computer, such as the one described in Lucente. Ex. 1009 ¶ 158. The disclosures of Sound Blaster and Lucente, according to Mr. Schmandt, would allow a person of ordinary skill in the art to construct a device as claimed in the '171 patent. Ex. 1014 ¶ 52. Mr. Schmandt also addresses Mr. McAlexander's opinion that a person of ordinary skill in the art would have been unable to combine the computer of Lucente with the software of Sound Blaster, and testifies that a person of ordinary skill would have both the knowledge and a reason to combine the teachings of these references. *Id.* ¶¶ 54–65.

In our view, HTC's proposed analysis better comports with the "expansive and flexible approach" to obviousness set forth by the Supreme Court in *KSR*. "The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference." *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Our inquiry is, therefore, not "whether the references could be physically combined but whether the claimed inventions are rendered obvious by the teachings of the prior art as a whole." *In re Etter*, 756 F.2d 852, 859 (Fed. Cir. 1985) (en banc).

Based on the combination of references proposed by HTC, Mr. Schmandt testifies that a person of ordinary

skill in the art would have recognized the advantages of Sound Blaster’s *functionality*, and sought to incorporate those features into Lucente. Ex. 1009 ¶ 158 (“[A] person of ordinary skill in the art would be motivated to combine a system with the flexibility, portability, and ease of use of Lucente with the audio management capabilities of Sound Blaster.”); *id.* ¶ 160 (“[I]t would be obvious to design a system with physical (e.g. push-button) controls to carry out the various *functions* designed by Sound Blaster, particularly in view of Lucente and Ozawa.” (emphasis added)). The record reflects that such a modification would not have been outside the level of ordinary skill, which both experts define similarly. Ex. 1009 ¶ 25 (Schmandt: at least a bachelor’s degree in electrical engineering, computer science, or equivalent, and 1–3 years of experience in designing and programming consumer electronic devices); Ex. 2006 ¶ 8 (McAlexander: bachelor’s degree in electrical engineering or computer engineering, and at least two years of experience in the design of audio systems). This level of skill is also reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). AAD’s focus on whether the Sound Blaster hardware sound card could be installed on the Lucente device, or whether the Sound Blaster software could run on Lucente’s operating system, ignores that a person of ordinary skill is a “person of ordinary creativity, not an automaton.” *KSR*, 550 U.S. at 421.

It would not have been outside the level of ordinary skill in the art, as defined by both experts, to modify the device of Lucente to have the functionality described in Sound Blaster—including grouping and ordering songs—as well as the ability to download

songs as described in Ozawa and the on/off control of Hawkins. We, therefore, find that a person of ordinary skill in the art would have had reason to combine the disclosures of Sound Blaster, Lucente, Ozawa, and Hawkins and would have had a reasonable expectation of success in doing so.

c. Objective Indicia of Nonobviousness

As discussed above, we have considered AAD's evidence of objective indicia of nonobviousness, but conclude that the evidence is insufficient to support a conclusion of nonobviousness.

d. Conclusion on Obviousness

For the foregoing reasons, HTC has proven by a preponderance of the evidence that Sound Blaster, Lucente, Ozawa, and Hawkins teach all elements of challenged claims 1, 2, 5, 6, 7, 14, 17, 20, 26, 28, 37, 40, 42, 43, and 45–48, and that a person of ordinary skill in the art would have had reason to combine the disclosures. Furthermore, we conclude that such a combination would have been within the level of ordinary skill in the art, as evidenced by the prior art of record. We, therefore, conclude that claims 1, 2, 5, 6, 7, 14, 17, 20, 26, 28, 37, 40, 42, 43, and 45–48 would have been obvious at the time of the invention, and thus are unpatentable under 35 U.S.C. § 103.

3. Alleged Obviousness of Claim 23 Over Sound Blaster, Lucente, and Ozawa, Hawkins, and Martin

HTC asserts an additional ground of unpatentability, based on the combination of Sound Blaster, Lucente, Ozawa, and Hawkins with Martin.

Pet. 56–57. AAD does not present additional arguments on this ground, relying only on its argument that Sound Blaster, Lucente, Ozawa, and Hawkins are not properly combinable. PO Resp. 48. As discussed above, we do not agree with AAD that a person of ordinary skill in the art would not have combined Sound Blaster and Lucente, and therefore, AAD’s arguments against this additional ground fails for the same reasons.

Claim 23 depends from claim 1 and further requires that at least one of the touch-operable controls is touchable to sort a list of sound tracks which is displayed on the display, wherein all of the sound tracks in the list and their names are stored in the non-volatile memory. HTC relies on Martin to teach sorting songs alphabetically by artist or title, and argues that the ability to do so permits a user to quickly identify a song from a large database. Pet. 56–57. HTC contends, therefore, a person would have combined Martin with the disclosures of Sound Blaster, Lucente, Ozawa, and Hawkins. *Id.* We find that Martin discloses providing on a display an index of available songs, sorted alphabetically either by artist or title. Ex. 1007, 7:22–25. We also credit Mr. Schmandt’s testimony that a person of ordinary skill in the art would have had reason to include this functionality in the combination of Sound Blaster, Lucente, and Ozawa. Ex. 1009 ¶ 216. We find that this additional limitation is, therefore, disclosed by Martin, and the remaining limitations of claim 23 are disclosed by Sound Blaster, Lucente, Ozawa, and Hawkins, as discussed above.

C. Patentability of Proposed Substitute Claims

In an *inter partes* review, amended claims are not added to the patent as of right, but rather must be

proposed as a part of a motion to amend. 35 U.S.C. § 316(d). As moving party, the patent owner bears the burden of proof to establish that it is entitled to the relief requested—namely, addition of the proposed claims to the patent. 37 C.F.R. § 42.20(c). A patent owner must meet the requirements of 37 C.F.R. § 42.121, and demonstrate the patentability of the proposed substitute claims. *Idle Free Sys., Inc. v. Bergstrom, Inc.*, Case IPR2012-00027 (PTAB June 11, 2013) (Paper 26, “*Idle Free*”) (informative); *see also Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1308 (Fed. Cir. 2015) (“Assuming an amendment is appropriately responsive to the grounds of unpatentability involved in the trial, the patentee must still go on to show that it is entitled to its substitute claim.”).

AAD’s Motion to Amend proposes to substitute new claim 49 for claim 1, contingent on claim 1 being held unpatentable. Mot. Amend 2. AAD, however, concedes that its Motion only addresses unpatentability over the Nathan obviousness ground.¹² *Id.* at 8. In other words, “[i]f the Board finds that claim 1 is unpatentable due to Sound Blaster and/or Lucente, th[e] Motion need not even be considered by the Board.” *Id.* As set forth above, we have found claim 1 unpatentable over both asserted grounds. As AAD acknowledges, we need not consider its Motion.

¹² We need not address whether the Motion, by intentionally not responding to an instituted ground of unpatentability, complies with our Rules. *See* 37 C.F.R. § 42.121(a)(2)(i) (“A motion to amend may be denied where . . . [t]he amendment does not respond to a ground of unpatentability involved in the trial.”).

Nevertheless, we note that even absent AAD's statement, the Motion to Amend would be denied on the merits. Proposed claim 49 includes several limitations not present in claim 1:

wherein the personal digital stereo audio player is configured such that after sound tracks are stored in the non-volatile memory:

a session is addable using at least one touch-operable control on the housing;

the session is nameable using at least one touch-operable control on the housing;

sound tracks are addable to the session using at least one touch-operable control on the housing;

sound tracks are deleteable from the session using at least one touch-operable control on the housing;

wherein an order of the sound tracks in the session is customizable using at least one touch-operable control on the housing;

wherein the session is re-nameable using at least one touch-operable control on the housing; and

wherein the session is deleteable using at least one touch-operable control on the housing.

Id. at 16. To provide written description support for these changes, AAD cites to the disclosure of US Patent Application No. 12/855,510 (Ex. 2009), filed August 12,

2010, which issued as the '171 patent. *Id.* at 3–6. Therefore, even if we were to grant the Motion to Amend, the proposed substitute claims would only be entitled to a priority date of August 12, 2010. *See* 37 C.F.R. § 42.121(b) (“A motion to amend claims must . . . set forth: . . . (2) The support in an earlier-filed disclosure for each claim for which benefit of the filing date of the earlier filed disclosure is sought.”)

A motion to amend is also required to set forth a construction for any new terms introduced via amendment. *See Idle Free*, slip op. at 7. In particular, AAD introduces the term *session* to the claims. AAD points out that the specification of the '171 patent uses *session* in several locations, and proposes that the term be construed synonymous with “playlist,” meaning “an electronic file containing a list of audio or video files that can be played back on an MP3 player or other media player in a particular sequence.” Mot. Amend. 7. HTC contests this construction, noting that the specification of the '171 does not use the term “playlist,” and arguing that AAD gives insufficient reason to link the two terms as synonyms. Amend Opp. 3. Even adopting AAD’s proffered construction, however, we would not grant the Motion to Amend, as AAD has not demonstrated patentability of claim 49 or any of the proposed dependent claims.

In a motion to amend, a patent owner has the burden “to show patentable distinction over the prior art of record and also prior art known to the patent owner.” *Idle Free*, slip op. at 7. We have held that “prior art of record” refers to material art in the prosecution history of the patent, material art of record in the current proceeding before the Board, and material art

of record in any other proceeding before the Office involving the patent. *See MasterImage 3D, Inc. v. RealD Inc.*, Case IPR2015-00040, slip op. at 2 (PTAB July 15, 2015) (Paper 42). AAD's Motion, however, does not discuss *any* of the prior art of record other than the Nathan references.

Nor does AAD discuss the prior art known to AAD, beyond that already of record. The Board has stated that this requires "no more than the material prior art that Patent Owner makes of record in the current proceeding pursuant to its duty of candor and good faith to the Office under 37 C.F.R. § 42.11." *Id.* at 3. In considering this duty of candor and good faith, patent owners should emphasize the limitations added to the proposed claim. *Id.* AAD's Motion fails to make any such prior art of record, even though it acknowledges that another patent in the same family as the '171 patent "had hundreds of items of prior art cited against it." Mot. Amend 11. AAD merely makes the statement that "[a]s far as Patent Owner knows, none of the features now being claimed were previously known or disclosed in any of the prior art of record, or in any other prior art known to Patent Owner." *Id.* at 12.

AAD argues that "[t]here are almost 200 references made of record in the AAD patent family. AAD cannot be expected to discuss them all in its Motion." Amend Reply 3. Even if the large number of prior art references cited in related applications may excuse AAD's failure to discuss one or two material references, however, it does not excuse AAD from, at the very least, making a good faith attempt to determine whether any prior art known to it discloses the additional limitations introduced in the proposed

amended claim. As discussed above, the earliest priority date supported by the Motion to Amend is August 12, 2010. AAD, however, does not discuss the state of the art as of that date, or provide any prior art references beyond those already of record that might be material to the added limitations. A generalized statement that “none of the features now being claimed were previously known or disclosed in any of the prior art of record, or in any other prior art known to Patent Owner” (Mot. Amend 12) is not sufficient to carry AAD’s burden. *See Idle Free*, slip op. at 7 (“Some representation should be made about the specific technical disclosure of the closest prior art known to the patent owner, and not just a conclusory remark that no prior art known to the patent owner renders obvious the proposed substitute claims.”).

We, therefore, conclude that even if the Motion to Amend is evaluated on its merits, AAD has not met its burden of demonstrating that it is entitled to the relief requested. In particular, the Motion fails to address the patentability of the claims over the prior art of record, and fails to address the patentability of the claims over the material prior art known to AAD. Accordingly, the Motion to Amend is *denied*.

III. CONCLUSION

We conclude that HTC has demonstrated, by a preponderance of the evidence, that claims 1, 2, 5, 6, 7, 14, 17, 20, 23, 26, 28, 37, 40, 42, 43, and 45–48 of the ’171 patent are unpatentable under 35 U.S.C. § 103, as having been obvious over the following combinations of prior art references:

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Claims 1, 2, 5, 6, 7, 14, 17, 20, 26, 28, 37, 40, 42, 43, and 45–48: Nathan '259 and Nathan '255;

Claims 1, 2, 5, 6, 7, 14, 17, 20, 26, 28, 37, 40, 42, 43, and 45–48: Sound Blaster, Lucente, Ozawa, and Hawkins; and

Claim 23: Sound Blaster, Lucente, Ozawa, Hawkins, and Martin.

IV. ORDER

Accordingly, it is

ORDERED that claims 1, 2, 5, 6, 7, 14, 17, 20, 23, 26, 28, 37, 40, 42, 43, and 45–48 of U.S. Patent No. 7,933,171 B2 are *unpatentable*;

FURTHER ORDERED that Patent Owner's Motion to Exclude is *denied*;

FURTHER ORDERED that Patent Owner's Motion to Amend is *denied* as to proposed substitute claims 49–67.

FURTHER ORDERED that, pursuant to 35 U.S.C. § 318(b), upon expiration of the time for appeal of this decision, or the termination of any such appeal, a certificate shall issue canceling claims 1, 2, 5, 6, 7, 14, 17, 20, 23, 26, 28, 37, 40, 42, 43, and 45–48 in U.S. Patent No. 7,933,171 B2; and

FURTHER ORDERED that, because this is a final decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

For Petitioner:

Bing Ai
Hwa C. Lee
Thomas N. Millikan
Matthew C. Bernstein
Evan S. Day
PERKINS COIE LLP
Ai-ptab@perkinscoie.com
HLee@perkinscoie.com
TMillikan@perkinscoie.com
MBernstein@perkinscoie.com
EDay@perkinscoie.com

For Patent Owner:

James R. Foley
Timothy M. McCarthy
John S. Paniaguas
CLARK HILL PLC
jfoley@clarkhill.com
tmccarthy@clarkhill.com
jpaniaguas@clarkhill.com

APPENDIX F

Trials@uspto.gov
571-272-7822

Paper 36
Date: January 22, 2016

**UNITED STATES PATENT AND TRADEMARK
OFFICE**

**BEFORE THE PATENT TRIAL AND APPEAL
BOARD**

**Case IPR2014-01158
Patent 8,400,888 B2**

[Filed January 22, 2016]

HTC CORPORATION and HTC AMERICA, INC.,)
Petitioner,)
)
v.)
)
ADVANCED AUDIO DEVICES, LLC,)
Patent Owner.)
)

Before SCOTT A. DANIELS, CHRISTOPHER L.
CRUMBLY, and GEORGIANNA W. BRADEN,
Administrative Patent Judges.

CRUMBLY, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
35 U.S.C. § 318 and 37 C.F.R. § 42.73

I. INTRODUCTION

In this *inter partes* review trial, instituted pursuant to 35 U.S.C. § 314, Petitioner HTC Corporation and HTC America, Inc. (collectively, “HTC”) challenges the patentability of claims 1–15 of U.S. Patent No. 8,400,888 B2 (Ex. 1001, “the ’888 patent”), owned by Advanced Audio Devices, LLC (“AAD”).

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision, issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73, addresses issues and arguments raised during trial. For the reasons discussed below, we determine that HTC has met its burden to prove, by a preponderance of the evidence, that claims 1–15 of the ’888 patent are *unpatentable*.

A. Procedural History

On July 11, 2014, HTC filed a Petition requesting *inter partes* review of claims 1–15 of the ’888 patent. Paper 1, “Pet.” AAD filed a Patent Owner’s Preliminary Response. Paper 5. In a Decision on Institution of *Inter Partes* Review (Paper 6, “Dec.”), we instituted trial on claims 1–15 based on the following grounds:

1. Whether claims 1–15 are unpatentable under 35 U.S.C. § 103 as having been obvious over the combined disclosures of Keller¹ and Martin;²
2. Whether claims 1–15 are unpatentable under 35 U.S.C. § 103 as having been obvious over the

¹ Ex. 1002, US 7,289,393 to Keller et al. (Oct. 30, 1997).

² Ex. 1003, US 5,355,302 to Martin et al. (Oct. 11, 1994).

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combined disclosures of Nathan '259³ and Nathan '255;⁴ and

3. Whether claims 1–15 are unpatentable under 35 U.S.C. § 103 as having been obvious over the combined disclosures of Sound Blaster,⁵ Lucente,⁶ and Ozawa.⁷

Dec. 26.

Following institution, AAD filed a Patent Owner's Response to the Petition (Paper 14, "PO Resp."), and HTC filed a Reply (Paper 20, "Pet. Reply").

HTC supported its Petition with the Declaration of Christopher Schmandt (Ex. 1009), and submitted a Rebuttal Declaration of Mr. Schmandt (Ex. 1016) with its Reply.

With its Patent Owner Response, AAD filed the Declaration of Joseph C. McAlexander III. Ex. 2011. HTC took the cross-examination of Mr. McAlexander via deposition. Ex. 1020. AAD also submitted the

³ Ex. 1004, WO 96/12259 to Nathan et al. (Apr. 25, 1996).

⁴ Ex. 1005, WO 96/12255 to Nathan et al. (Apr. 25, 1996).

⁵ Ex. 1006, Exhibit B, Sound Blaster 16 User Reference Manual. With Sound Blaster, HTC submits the Declaration of Kyle A. Miller, which states that Sound Blaster was publicly available "no later than the early spring of 1995." Ex. 1006 ¶ 13.

⁶ Ex. 1007, EP 0598547 A2 to Lucente et al. (May 25, 1994).

⁷ Ex. 1008, US 5,870,710 to Ozawa et al. (filed Jan. 22, 1997).

testimony of Peter J. Keller, a named inventor on the '888 patent. Ex. 2018.⁸

AAD filed a Motion to Exclude Exhibit 1006 (Paper 23, "Mot. Exclude"), to which HTC filed an Opposition (Paper 25, "Exclude Opp.") and AAD filed a Reply (Paper 28, "Exclude Reply").

Oral hearing was requested by both parties, and a consolidated oral hearing involving this trial and related trials IPR2014-01154, IPR2014-01155, IPR2014-01156, and IPR2014-01157 was held on September 17, 2015. A transcript of the oral hearing is included in the record. Paper 35, "Tr."

B. The '888 Patent

The '888 patent discloses an audio recording device that the specification terms a "music jukebox." Ex. 1001, 1:21–22. According to the specification, existing recording devices permitted music to be recorded onto a compact disc in real time, but did not provide editing functions, the ability to store music on the recorder for making multiple copies of the disc, or the ability to customize easily the order in which tracks are recorded onto the disc. *Id.* at 2:33–67. The described music jukebox is said to address these issues, as well as permit a user to "audition" a stored audio track by listening to it before recording onto a compact disc. *Id.* at 3:27–43.

⁸ Exhibit 2018 was the subject of a Motion to Seal (Paper 13), which was granted. Paper 26. A public, redacted version of Exhibit 2018 was also filed by AAD under the same exhibit number.

Various hardware components of the jukebox are described in the specification, including: audio inputs for receiving music in the form of analog signals (*id.* at 7:55–61); one or more data storage structures for storing and retrieving audio stored in digital form (*id.* at 9:15–22); and a drive for recording stored audio onto compact discs (*id.* at 13:62–64). The audio data stored in the memory permits audio tracks to be played back selectively, or “auditioned,” prior to recording. *Id.* at 4:38–47. The components of the music jukebox are contained in a housing having a display for providing information to a user, for example through a graphical user interface. *Id.* at 4:55–5:15. The housing also comprises a plurality of push buttons for controlling operation of the device. *Id.* at 5:16–42.

The specification of the ’888 patent describes the operation of the device as permitting a user to create a “session,” which is a group of sound tracks selected from a master song list. *Id.* at 15:50–52, 16:58–66. A user also may reorder the songs within a session by selecting songs and moving them up or down within the session list. *Id.* at 16:25–33. The session then can be written to a compact disc. *Id.* at 15:46–50.

C. Illustrative Claims

Of the challenged claims, only claim 1 is independent; all other challenged claims depend, directly or indirectly, from claim 1. The challenged independent claim reads as follows:

1. An apparatus configured to store sound tracks and play the stored sound tracks for personal enjoyment, said apparatus comprising:

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a housing containing non-volatile memory, the housing further comprising at least one touch-operable control and a touch screen display configured to be operated to cause the touch screen display to display at least one menu relating to a library of sound tracks, wherein all of the sound tracks in the library and their names are stored in the non-volatile memory of the apparatus, wherein the at least one menu includes at least one of a list of names of sound tracks stored in the non-volatile memory of the apparatus and a list of groups of sound tracks stored in the non-volatile memory of the apparatus;

an input in the housing for receiving audio data;

audio output structure located at least partially within the housing for outputting audio signals;

wherein the at least one touch-operable control and touch screen display is configured such that at least one of the touch-operable control and the touch screen display is touchable to allow selection from the at least one menu displayed on the touch screen display;

wherein the apparatus is configured to receive audio data through the input of the apparatus, whereby sound tracks become stored in the non-volatile memory as digital data;

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wherein the apparatus is configured for maintaining and selectively accessing and playing sound tracks stored in the non-volatile memory;

wherein the apparatus is configured such that at least one of the at least one touch-operable control and the touch screen display is touchable to cause the apparatus to display on the touch screen display at least one of a list of names of sound tracks and a list of groups of sound tracks wherein all of the sound tracks in the list of names of sound tracks displayed on the touch screen display are stored in the non-volatile memory of the apparatus, and wherein all of the sound tracks in the list of groups of sound tracks displayed on the touch screen display are stored in the non-volatile memory of the apparatus; and

wherein the apparatus is configured such that at least one of the at least one touch-operable control and the touch screen display is touchable to cause the apparatus to play through the audio output structure at least one of a specific sound track displayed on the touch screen display and a group of sound tracks displayed on the touch screen display, said apparatus being configured to display said list of names of sound tracks stored in the non-volatile memory of the apparatus without the apparatus having

to be connected to a network service center containing the names.

Id. at 21:2–52.

II. DISCUSSION

A. Claim Construction

For purposes of our Decision to Institute, we analyzed each claim term in light of its broadest reasonable interpretation, as understood by one of ordinary skill in the art and as consistent with the specification of the '888 patent. 37 C.F.R. § 42.100(b); see *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1278–79 (Fed. Cir. 2015), *cert. granted*, *Cuozzo Speed Techs. LLC v. Lee*, 84 U.S.L.W. 3218 (U.S. 2016). In the Decision to Institute, we construed the term *selectively accessing* as “obtaining from a number or group by fitness or preference.” See Dec. 8–10 (citing 37 C.F.R. § 42.100(b)).

During the course of the trial, HTC disputed our construction of *selectively accessing*, arguing that “by fitness or preference” is found only in a single dictionary definition submitted by AAD, and is inconsistent with the broadest reasonable interpretation of the term. Pet. Reply 1–2. We disagree. Interpreting *selectively accessing* as merely “obtaining from a number or group” would encompass, for example, random selection of sound tracks. This is inconsistent with the specification of the '171 patent, which emphasizes the user’s choice in selecting sound tracks. See, e.g., Ex. 1001, 12:3–6 (“[A]n operating system . . . enable[s] the user to focus on selection and ordering of audio material.”). We consider HTC’s proffered construction to be unreasonably broad given

these disclosures. *See Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1298 (Fed. Cir. 2015) (“A construction that is ‘unreasonably broad’ and which does not ‘reasonably reflect the plain language and disclosure’ will not pass muster.”).

For these reasons, we see no reason to alter the constructions of the claim terms as set forth above, and we incorporate our previous analysis in the Decision to Institute for purposes of this Decision.

*B. Alleged Obviousness of
Claims 1–15 Over Keller and Martin*

HTC asserts that claims 1–15 are unpatentable under 35 U.S.C. § 103 over the combined disclosures of Keller (Ex. 1002) and Martin (Ex. 1003). Pet. 18–27. Keller, issued October 30, 2007, is a parent patent of the '888 patent, and contains a specification that is substantially similar to that of the '888 patent. HTC contends that all limitations of the challenged claims are disclosed in Keller, except the limitation of claim 1 that recites “said apparatus being configured to display said list of names of sound tracks stored in the non-volatile memory of the apparatus without the apparatus having to be connected to a network service center containing the names.” *Id.* at 19. To provide this missing limitation, HTC relies on the disclosure of Martin, which is said to teach a system for managing a plurality of jukeboxes from a central station. *Id.* According to HTC, the system of Martin includes local jukeboxes, which store the titles of songs stored in the central mass storage unit, regardless of whether the jukebox is currently connected to the central station. *Id.* at 20.

AAD contends that Keller is not prior art to the '888 patent, because the '888 patent claims priority, via a chain of applications, to application 09/111,989, filed July 8, 1998. PO Resp. 8–9. HTC argues that the '888 patent is not entitled to the 1998 filing date because, during prosecution, AAD added new matter to the claims of the '888 patent during prosecution, in an amendment dated December 6, 2012. Pet. 5. HTC identifies as new matter a limitation of claim 1: “said apparatus being configured to display said list of names of sound tracks stored in the non-volatile memory of the apparatus without the apparatus having to be connected to a network service center containing the names.” *Id.* HTC points to the fact that the specification of the '888 patent as originally filed does not use the phrase “network service center,” and speculates that the term was taken from Ozawa and added as a negative limitation during prosecution to overcome a prior art rejection over Ozawa. *Id.* at 5–6. As such, HTC contends that the claims lack written description support in the parent applications, and therefore, the earliest priority date to which these claims could be entitled is April 25, 2011, the filing date of the application which matured into the '888 patent. *Id.* at 7.

In a chain of continuation applications, a claim in a patent receives the benefit of the filing date of an earlier application in the chain, if the claim is supported by the written description of the earlier application. 35 U.S.C. §§ 112, 120. “[E]ntitlement to priority is decided on a claim-by-claim basis, and various claims may be entitled to different priority dates.” *X2Y Attenuators, LLC v. Int’l Trade Comm’n*, 757 F.3d 1358, 1366 (Fed. Cir. 2014). Thus, absent a

claim of priority, parent applications may be used as prior art to claims in a later-filed child application, but only for claims that incorporate new matter. *See Santarus, Inc. v. Par Pharm., Inc.*, 694 F.3d 1344, 1352 (Fed. Cir. 2012).

When faced with such a prior art challenge to a claim, the burden of production—alternatively called the burden of going forward—is on the patent owner to make a claim of priority that the challenged claims are entitled to a filing date prior to the date of the alleged prior art. *See Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1327 (Fed. Cir. 2008). In other words, the patent owner must come forward with evidence and argument—either in its Preliminary Response or, if trial is instituted, in its Response—showing why the challenged claim is supported by the written description of the priority application.

The ultimate burden of persuasion in an *inter partes* review, however, remains on the Petitioner to prove unpatentability by a preponderance of the evidence, and that burden never shifts to the patent owner. 35 U.S.C. § 316(e); *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). Therefore, once a Patent Owner satisfies its burden of production, the burden is on Petitioner to convince the Board that the challenged claim is not entitled to the benefit of the earlier filing date. *See Dynamic Drinkware*, 800 F.3d at 1379–80.

In our Decision to Institute, we concluded that AAD had not, at that time, met its burden of production on the priority date of the '888 patent claims. Dec. 13–14. Specifically, we noted that AAD had not introduced any parent application into the record of the proceeding,

and therefore, there was no evidentiary basis to support AAD's claim of priority. *Id.* During trial, however, AAD introduced several parent applications into the record, dating back to an earliest filing date of August 17, 2000. PO Resp. 9–10; *see* Exs. 2012–16. AAD contends that every one of the submitted applications contains support for the disputed claim limitation, and thus, the '888 patent claims are entitled to a priority date of no later than August 17, 2000, predating the effective date of Keller. PO Resp. 10.

We conclude that AAD has met its burden of production in establishing that claims 1–15 are entitled to a priority date before the effective date of Keller. We, therefore, turn to the question of whether HTC has met its ultimate burden of persuasion that the claims are not entitled to the August 17, 2000 filing date. Specifically, we evaluate HTC's argument that the limitation "said apparatus being configured to display said list of names of sound tracks stored in the non-volatile memory of the apparatus without the apparatus having to be connected to a network service center containing the names" is a negative limitation unsupported in the original application. Pet. 5–6. Both parties cite *Santarus, Inc. v. Par Pharm., Inc.*, to support their contentions, but disagree whether the priority applications provide "a reason to exclude" the disputed claim limitation. PO Resp. 15–16; Pet. Reply 3–6.

The Federal Circuit recently addressed written description support for negative limitations, and what constitutes a "reason to exclude," in *Inphi Corp. v. Netlist, Inc.*, 805 F.3d 1350 (Fed. Cir. 2015). Specifically, the court asked whether "describing

alternative features—without articulating advantages or disadvantages of each feature—can constitute a ‘reason to exclude’ under the standard articulated in *Santarus*.” *Id.* at 1355. Rejecting the appellant’s argument that a specification must state the advantage of excluding a particular feature, the court held that “*Santarus* simply reflects the fact that the specification need only satisfy the requirements of § 112, paragraph 1 as described in this court’s existing jurisprudence.” *Id.* at 1356. The “reason to exclude,” therefore, may be provided by properly describing alternative features of the patented invention. *Id.* The court proceeded to analyze whether there was sufficient evidence that the patentee possessed the negative claim limitation as of the filing date. *Id.* at 1357.

In view of *Inphi*, we reject HTC’s argument that claims 1–15 are not entitled to an earlier priority date because AAD allegedly “fails to identify any teaching in the specification of any of its applications . . . that excludes a connection to a ‘network service center containing the names,’ *fails to identify any disadvantages of such a network service center*, and fails to otherwise provide a reason to exclude a network service center.” Pet. Reply 5 (emphasis added). We need not find a recitation in the originally-filed specification of any disadvantage of a network service center; rather, the proper inquiry is whether the priority application reasonably conveys that the inventor was in possession of an apparatus that could—without connecting to a network service center—display a list of names of sound tracks. We conclude that it does.

As AAD points out, the device disclosed in the priority applications includes a number of inputs, but

as Mr. McAlexander testifies, none of these inputs could be used to connect to a network service center. PO Resp. 12; Ex. 2011 ¶ 65. Furthermore, the applications disclose displaying a list of names of sound tracks, which are entered into the memory of the device by the user (as opposed to being obtained from a network service center). PO Resp. 12–13. Mr. McAlexander testifies that the specifications reasonably convey to a person of ordinary skill in the art that the described apparatus could display a list of names of sound tracks without being connected to a network service center. Ex. 2011 ¶ 65. After evaluating the specifications and the expert testimony, we agree.

We, therefore, conclude that HTC has not met its burden to prove, by a preponderance of the evidence, that claims 1–15 of the '888 patent are not entitled to a priority date before the effective date of Keller. As such, HTC has not established that Keller is prior art to the '888 patent, and has not proven that claims 1–15 are unpatentable as having been obvious over Keller and Martin.

*C. Alleged Obviousness of
Claims 1–15 Over Nathan '259 and Nathan '255*

The elements of an obviousness analysis under 35 U.S.C. § 103 were set forth by the Supreme Court as follows: “the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved.” *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). Furthermore, as a guard against hindsight reasoning, we must “withhold judgment on an obviousness challenge until [we] consider[] all relevant evidence, including that

relating to the objective considerations” such as commercial success or long-felt need. *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1079 (Fed. Cir. 2012). While we may apply “an expansive and flexible approach” to the question of obviousness, and take the sequence of the *Graham* factors in a different order depending on the particular case, “the factors continue to define the inquiry that controls.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 407, 415 (2007).

We note, at the outset, that AAD does not contest that a person of ordinary skill in the art would have combined the disclosures of Nathan ’259 and Nathan ’255. Tr. 80:16–24. Rather, AAD disputes HTC’s interpretation of the Nathan references, and whether a person of ordinary skill in the art would have understood them to disclose all elements of the challenged claims. PO Resp. 18. Upon review of HTC’s asserted reasons to combine the Nathan references (Pet. 29–30), Mr. Schmandt’s testimony on that point (Ex. 1009 ¶ 119), and the lack of challenge from AAD, we find that a person of ordinary skill would have had reason to combine the Nathan references in the manner asserted.

1. Disclosures of the Nathan References

The primary dispute between the parties on the Nathan references is over what the references actually disclose. According to HTC, the jukebox systems described in the Nathan systems permit purchase and download of songs from a remote server, into a master song list stored locally on the jukebox. Pet. 27–28. A user may then select songs from the master song list into a queue; after the songs are played, they are

deleted from the queue, but not the local storage. *Id.* By contrast, AAD asserts that the jukeboxes of Nathan permit users to purchase the right to play a song only once; when the songs are downloaded, they are immediately added to the queue, then deleted from local storage immediately after they are played. PO Resp. 18–19. According to AAD, therefore, a user of the Nathan system has no control over the order of songs in the queue other than the order in which the songs were purchased. *Id.* at 22. Nor does Nathan, in AAD’s reading, provide any library distinct from the queue. *Id.* at 30 (“The queue is *not* a subset of an internal music library; the queue *is* the music library.”) (citing Ex. 2011 ¶ 62).

In our Decision to Institute, we determined that the record at that time did not support AAD’s interpretation of the Nathan references. Rather, we concluded that “it appears that Nathan ’259 discloses deleting songs from the *queue* once they are played, not from the music library altogether.” Dec. 19 (“[w]hen the selection has been reproduced in its entirety, it is removed from the queue file” (quoting Ex. 1004 ¶ 86)). We also determined that the record supported the conclusion that Nathan ’259 discloses a “new selection acquisition mode” (“NSAM”) for ordering and downloading new music onto the jukebox. Dec. 14; Ex. 1004 ¶¶ 64–73. A “selection graphics screen” then permits a user to add these newly acquired songs to a queue for playback. Ex. 1004 ¶ 74. We concluded that Nathan ’259 appeared to describe a master song list to which songs are added via the NSAM, as well as the ability to create a queue of songs selected from the master song list using the selection graphics screen. Dec. 14.

AAD's Response contends that our interpretation of Nathan '259 was in error (PO Resp. 24–25), and Mr. McAlexander testifies in support of AAD's interpretation of the reference. Ex. 2011 ¶¶ 32–63. AAD raises several issues regarding the disclosure of Nathan '259, which it contends are inconsistent with HTC's interpretation of the reference.

First, AAD asks why, if songs are not deleted entirely from the device immediately following playback, Nathan '259 does not disclose some sort of “delete” function so that users can clear songs from the memory. PO Resp. 25–28. HTC responds by noting that Nathan '259, as a patent document, likely is focused on the novel aspects of the disclosed device as opposed to known functions such as deleting files. Pet. Reply 13.

Prior art references are evaluated according to what they would disclose to a person of ordinary skill in the art. *See Sundance, Inc. v. DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1361 n.3 (Fed. Cir. 2008). As such, the fact that a reference is silent regarding a particular feature only signifies exclusion of that feature if a person of ordinary skill would understand silence to imply exclusion. AAD provides no compelling evidence this is the case with Nathan '259. Mr. McAlexander, AAD's expert, testifies that there is no disclosure of a delete function in Nathan '259, but does not state that he, or any other person of ordinary skill, would interpret this silence to imply that a delete function is excluded. Ex. 2011 ¶ 62. Furthermore, we note that Nathan '255 explicitly discloses a manual delete function for removing little-known titles. Ex. 1005 ¶ 7. Therefore, we do not find the absence of an explicit “delete function” in Nathan '259 to imply that the

Nathan jukebox does not have such a common and known function.

Second, AAD notes that Nathan '259 discloses a system having as little as 32 megabytes of RAM, and asks why such a small amount of memory is contemplated if a local music library is stored. PO Resp. 25–26. HTC responds by noting that the 32 megabyte capacity is a minimum, and Nathan '259 puts no upper limit on the number of songs that can be stored. Pet. Reply 13. Furthermore, HTC notes that Nathan '255 discloses that its device may store a “minimum of 350 to 400 titles.” *Id.* (citing Ex. 1005 ¶ 7). We consider HTC’s interpretation on this point to be persuasive, and do not find the disclosure of a 32 megabyte minimum memory capacity to be inconsistent with our understanding of the Nathan references.

Third, AAD points out a passage in Nathan '259 that states that a button “allows validation of the selection or selections for initiating their introduction into the queue,” (Ex. 1004 ¶ 74) and argues that “validation” refers to purchase of a song. PO Resp. 28–29. Therefore, under AAD’s theory, purchase of a song results in immediate addition to the queue. *Id.* HTC contends that such an interpretation would render Nathan '259’s two modules redundant, as there would be no reason to have both a “new selections acquisition module” (“NSAM”) and a “selection graphics screen,” if songs are directly added from the NSAM to the queue. Pet. Reply 11–12. We agree with HTC, and additionally note that Nathan '259 uses the word “validate” in other contexts meaning “to confirm.” Ex. 1004 ¶ 75 (“validates his choice”), ¶ 114 (“validates the credit card”). We, therefore, interpret “validation of

the selection” in paragraph 74 of Nathan ’259 to refer to confirming that a song will be added to the queue, rather than purchase of a song.

At oral argument, AAD discussed these issues, and raised several other questions regarding the disclosure of Nathan ’259 which had not been raised previously in briefing. Tr. 53–54. Even if we were to consider such arguments properly raised,⁹ we do not find them persuasive. Based on our review of the Nathan references, in light of the expert testimony, our interpretation of the Nathan disclosures has not changed.

We find that Nathan ’259 discloses a jukebox that permits the downloading of song tracks via its NSAM. Ex. 1004 ¶¶ 64, 73 (“The display of FIG. 9 allows the user to access the new selections acquisition mode in connection with the NSAM module. . . . Button (1038) allows ordering of the selection which is then downloaded according to the above described mode.”). A different “selection graphics screen” shows the songs that have been downloaded, permits the user to sort the songs according to different criteria, and gives the user the ability to add songs to a queue. *Id.* ¶ 74 (“Button (124) allows validation of the selection or selections for initiating their introduction into the queue or their immediate and successive performance if the queue is empty.”). Contrary to AAD’s argument, we see no reason to conclude that when a file is

⁹ “A party may . . . only present [at oral hearing] arguments relied upon in the papers previously submitted. No new evidence or arguments may be presented at the oral argument.” *Office Patent Trial Practice Guide*, 77 Fed. Reg. 48,756, 48,768 (Aug. 14, 2012).

purchased and downloaded, it is immediately added to the queue, and deleted from local memory immediately after it is played. Nor do we find that the Nathan systems only permit the order of the queue to be determined by purchase order, as opposed to the order in which the songs are selected from the library of all downloaded songs.

2. *Analysis of Obviousness Over Nathan '259 and Nathan '255*

a. *Claim 1*

There is no dispute between the parties that the Nathan references disclose several of the elements found in claim 1. We find that Nathan '259 discloses a housing (“box,” Ex. 1004 ¶ 46); non-volatile memory (“RAM,” *id.* ¶ 51); an audio output structure (“stereo audio output,” *id.* ¶ 42); an input for receiving audio data (“telecommunications interface,” *id.* ¶ 3); and at least one touch-operable control (“a set of buttons,” *id.* ¶ 46). AAD does not contest these elements.

Furthermore, the combination of Nathan '259 and Nathan '255 discloses a touch screen display in the housing, configured to be operated to display at least one menu relating to a library of sound tracks. As AAD recognizes, Nathan '255 discloses a touchscreen display within its housing for controlling the jukebox. Ex. 1005 ¶ 24; PO Resp. 42. The touchscreen is a 14 inch “Intelli Touch” screen that “allows display of various selection data used by the customers.” Ex. 1005 ¶ 24. Mr. Schmandt, HTC’s expert and a founder of the MIT Media Lab with more than thirty years of experience in the media technology field, testifies that “[a] person skilled in the art would be motivated to implement the

touch screen disclosed in Nathan 255 on the LCD display . . . taught by Nathan 259, to allow more intuitive control of the jukebox.” Ex. 1009 ¶¶ 12, 13, 127. We, therefore, conclude that it would have been obvious to include the touchscreen of Nathan ’255 in the housing of Nathan ’259, to display the modules of Nathan ’259 such as the selection graphics screen. *See* Ex. 1004 ¶ 74. The display in the housing would be capable of displaying at least one menu relating to a library of sound tracks, as required by claim 1.

AAD also argues that the references do not disclose selectively accessing and playing songs in memory. PO Resp. 30, 41. To support this argument, AAD relies on its interpretation of Nathan as permitting only “single-play” downloads of songs, with immediate introduction of downloaded songs into a queue that cannot be selectively accessed. *Id.* As discussed above, we do not find this interpretation of Nathan ’259’s disclosure to be the correct one.

Given our finding that Nathan ’259 discloses the ability to select songs to download to local storage, followed by the ability to select songs for introduction into a queue, we find that the Nathan references disclose the ability to selectively access songs stored in memory. The songs downloaded into Nathan’s local memory become “songs stored in memory,” and the selection of songs into a queue is “selectively accessing” those songs. This satisfies our construction of *selectively accessing*, originally proposed by AAD, of “obtaining from a number or group by fitness or preference.” *See supra*, Section II.A.

For these reasons, we find that the combination of Nathan ’259 and Nathan ’255 teaches or suggests each

limitation of claim 1. AAD's arguments to the contrary are not persuasive.

b. Dependent Claims

AAD does not separately contest the obviousness of dependent claims 2–15 over the combined Nathan references. These claims recite additional features such as a headphone jack (claims 2, 5), an amplifier (claim 3), a touch-operable control or touchscreen touchable to power the apparatus on and off (claim 9), and the like. We find that these additional elements are taught or suggested by the combination of Nathan '259 and Nathan '255, and therefore do not patentably distinguish over the independent claims.

We, therefore, conclude that HTC has met its burden of showing that each element of challenged dependent claims 2–15 is taught or suggested by the combination of Nathan '259 and Nathan '255. As discussed above, we also find that a person of ordinary skill in the art would have had reason to combine the Nathan references.

3. Objective Indicia of Nonobviousness

Factual inquiries for an obviousness determination include secondary considerations based on evaluation and crediting of objective evidence of nonobviousness. *See Graham*, 383 U.S. at 17. Notwithstanding what the teachings of the prior art would have suggested to one of ordinary skill in the art at the time of the invention, the totality of the evidence submitted, including objective evidence of nonobviousness, may lead to a conclusion that the challenged claims would not have been obvious to one of ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984).

Secondary considerations may include any of the following: long-felt but unsolved needs, failure of others, unexpected results, commercial success, copying, licensing, and praise. *See Graham*, 383 U.S. at 17; *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007); *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1349, 1355 (Fed. Cir. 2012).

To be relevant, evidence of nonobviousness must be commensurate in scope with the claimed invention. *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011) (citing *In re Tiffin*, 448 F.2d 791, 792 (CCPA 1971)); *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998). In that regard, in order to be accorded substantial weight, there must be a nexus between the merits of the claimed invention and the evidence of secondary considerations. *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995). “Nexus” is a legally and factually sufficient connection between the objective evidence and the claimed invention, such that the objective evidence should be considered in determining nonobviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). The burden of showing that there is a nexus lies with the patent owner. *In re Paulsen*, 30 F.3d 1475, 1482 (Fed. Cir. 1994); *Demaco*, 851 F.3d at 1392.

AAD argues that the “clear commercial success” of the invention claimed in the ’888 patent demonstrates its nonobviousness, notwithstanding the disclosures of the Nathan references. PO Reply 52–54. To demonstrate this alleged commercial success, AAD submits the testimony of Peter Keller, supported by a number of confidential licenses which are said to have

generated more than \$10,000,000 of gross revenue. *Id.* Mr. Keller describes the “AAD Family of Patents,” which includes the ’888 patent, other related United States Patents, and foreign counterparts. Ex. 2018 ¶¶ 5, 8. Mr. Keller testifies that, for each licensee, he ensured that “at least one commercial product sold” was covered by “at least one claim of at least one patent” of the family. *Id.* ¶ 11.

In cases in which the proffered evidence of commercial success is licenses, rather than sales of products embodying the invention, there is a danger that the licenses may have been taken only because they were cheaper than defending an infringement suit. *See EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 908 (Fed. Cir. 1985). In such situations, nexus between the commercial success and the patent cannot be inferred; rather, “affirmative evidence of nexus” is required. *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1324 (Fed. Cir. 2004). In other words, a patent owner must demonstrate “a nexus between the *merits of the invention* and the licenses of record”; otherwise the licenses are to be accorded little weight. *In re GPAC*, 57 F.3d at 1580 (emphasis added).

HTC notes that each of the licenses listed by Mr. Keller includes at least two patents that explicitly claim a compact disc recorder, an element not present in the claims of the ’888 patent. Pet. Reply 24. HTC also contends that AAD fails to demonstrate any link between the invention of the ’888 patent and the taking of the license; for example, AAD provides no apportionment of revenues to show the amount

attributable to the '888 patent, as opposed to the other members of the licensed family. *Id.*

We agree with HTC that the evidence provided by AAD does not establish a sufficient link between the merits of the invention claimed in the '888 patent and the taking of the licenses. Although Mr. Keller notes that some of the provided licenses were taken in situations where there was no pending litigation against the licensee (Ex. 2004 ¶ 9), he does not address whether litigation had been *threatened* against those parties. We, therefore, cannot determine whether the licenses reflect the commercial value of the invention claimed in the '888 patent, or whether they were taken merely to avoid the cost of litigation, either pending or threatened. Absent a persuasive showing of nexus, AAD's evidence of licensing fails to establish commercial success.

We conclude that the evidence of objective indicia of nonobviousness is insufficient to overcome the evidence of obviousness over the combined Nathan references.

4. Conclusion on Obviousness

For the foregoing reasons, HTC has proven by a preponderance of the evidence that Nathan '255 and Nathan '259 teach all elements of challenged claims 1–15, and that a person of ordinary skill in the art would have had reason to combine the disclosures. Furthermore, we conclude that such a combination would have been within the level of ordinary skill in the art, as evidenced by the prior art of record. We, therefore, conclude that claims 1–15 would have been obvious at the time of the invention, and thus are unpatentable under 35 U.S.C. § 103.

D. Alleged Obviousness of Claims 1–15 Over Sound Blaster, Lucente, and Ozawa

We instituted trial to determine whether claims 1–15 would have been obvious over the combined disclosures of Sound Blaster, Lucente, and Ozawa, finding persuasive HTC’s unchallenged analysis in its Petition of how the elements of the challenged claims are taught by the references. Dec. 20–21, 25. In so doing, we noted that AAD did not dispute the alleged disclosures of the references, but instead disputed that Sound Blaster qualified as prior art to the ’888 patent, and argued that a person of ordinary skill in the art would have not combined the references. *Id.* at 21. In its Response, AAD again does not address the disclosures of the references, and instead argues that the references are not combinable because the combined teachings would produce an inoperable device. PO Resp. 43–52. According to AAD, to combine Sound Blaster with the teachings of Lucente would require a substantial reconstruction and redesign of the elements in Lucente. *Id.* at 45–48. Thus, AAD concludes that the combination of Sound Blaster and Lucente, regardless of the addition of Ozawa, would not have rendered the challenged claims obvious. *Id.* at 51–52. In addition, AAD moved to exclude Exhibit 1006 (Miller Declaration, Miller CV, and the Sound Blaster reference). Mot. Exclude 1.

Sound Blaster discloses audio software with a graphical user interface designed for organizing and playing back audio files. Ex. 1006, 2-1.¹⁰ Sound Blaster

¹⁰ HTC did not add page numbers to the Sound Blaster reference, as required by our Rules. *See* 37 C.F.R. § 42.63(d)(2)(i). We refer to

also discloses the ability to group sound tracks into playlists. *Id.* at 2-20–2-28, Fig. 2-8.

Lucente discloses a “pen-based computer with an integral flat panel display and digitized screen.” Ex. 1007, 1:3–4. The housing of Lucente includes an audio input and output, processor, and memory. *Id.* at 12:2–13, 7:39–49. According to HTC, the hardware of Lucente is capable of running the Sound Blaster software. Pet. 43.

Ozawa discloses a portable audio device that can download music from a network service center and save audio files to a hard drive in the device. Ex. 1008, 4:48–53. The Ozawa device has push-button controls on its face for controlling the operation of the device, such as playing and pausing music. *Id.* at 5:30–33.

At oral hearing, AAD’s counsel did not concede that Sound Blaster, Lucente, and Ozawa disclose all elements of the claims if combined, but acknowledged that AAD’s briefs had provided no argument on that point. Tr. 90–91. Specifically, AAD did not provide any evidence or testimony contrary to the evidence and testimony provided by Petitioner regarding the disclosures of Sound Blaster, Lucente, and Ozawa. Our Scheduling Order in this case cautioned AAD that “any arguments for patentability not raised in the [Patent Owner Response] will be deemed waived.” Paper 7, 3. The Board’s Trial Practice Guide, furthermore, states that the Patent Owner Response “should identify all the involved claims that are believed to be patentable

the page numbers of the original Sound Blaster manual when citing the reference.

and state the basis for that belief.” Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012) (emphasis added). As the Board has stated, our governing statute and Rules “clearly place some onus on the patent owner, once trial is instituted, to address the material facts raised by the petition as jeopardizing patentability of the challenged claims.” *Johnson Health Tech Co. v. Icon Health & Fitness, Inc.*, Case IPR2013-00463, slip op. at 12 (PTAB Jan. 29, 2015) (Paper 41). By addressing only the combination of the references, AAD conveyed to the Board and HTC that the only bases for its belief that the challenged claims are patentable were (i) whether Sound Blaster and Lucente were combinable and (ii) whether Sound Blaster is admissible.

In our Decision to Institute, we concluded that HTC had made a threshold showing that Sound Blaster, Lucente, and Ozawa taught all the limitations of the challenged claims, sufficient for us to conclude that there was a reasonable likelihood that HTC would prevail in showing that the challenged claims were obvious over the combined references. Dec. 25. We must now determine whether the preponderance of the evidence of record supports a finding of obviousness. 35 U.S.C. § 316(e). Given AAD’s waiver of argument that the combination of references does not teach all elements of the challenged claims, the record now contains the same arguments and evidence on that point as it did at the time of our Decision to Institute. After careful consideration of the entire record, including the Petition, Patent Owner’s Response, and all evidence submitted by the parties, we find that the preponderance of the evidence of record supports a finding that HTC has set forth how all limitations of

the challenged claims are taught by Sound Blaster, Lucente, and Ozawa. Pet. 47–60; Ex. 1009 ¶¶ 184–221 (Schmandt declaration). We, therefore, turn to the two remaining issues on this ground of unpatentability: AAD’s Motion to Exclude Sound Blaster, and whether a person of ordinary skill would have had reason to combine Sound Blaster, Lucente, and Ozawa.

1. Motion to Exclude Exhibit 1006

Exhibit 1006 contains two related documents: (1) the Declaration of Kyle A. Miller, attesting to the public availability of the Sound Blaster reference; and (2) the Sound Blaster reference itself. Mr. Miller testifies that Sound Blaster is a copy of a Sound Blaster 16 User Reference Manual he received during the course of his employment at Creative Labs, “no later than the early spring of 1995.” Ex. 1006 ¶ 19. According to Mr. Miller, his employer provided him with commercial versions of Creative Labs’ most popular products, including the Sound Blaster 16 Audio Card. *Id.* ¶ 12. Mr. Miller testifies that the product he received included the User’s Manual, and would have been the same documentation provided to a commercial purchaser of the product. *Id.* ¶ 14.

AAD moves to exclude Exhibit 1006 on several grounds. Mot. Exclude 1. Pursuant to our Rules, a motion to exclude evidence must be filed to preserve any previously-made objections to evidence. 37 C.F.R. § 42.64(c). The motion must identify where in the record the objections were made, and must explain the objections. *Id.*

We note that AAD does not identify where in the record its objections to evidence were made prior to

their being the basis of the Motion to Exclude, in violation of Rule 42.64(c). Indeed, the Board is aware of AAD's prior objections only because they were quoted in HTC's opposition to the Motion to Exclude. For this reason, AAD's Motion is procedurally deficient, and may be denied on this basis alone.

Even if we were to overlook the procedural deficiency of the motion itself, we would not exclude Exhibit 1006. First, AAD argues that the Miller Declaration is hearsay. Mot. Exclude 3–5. It does not appear that AAD previously made this objection, as required by our Rules. According to HTC, the only hearsay-based objection made by AAD was that Exhibit B (the Sound Blaster reference itself) did not satisfy the business records exception to the hearsay rule. Exclude Opp. 2. Furthermore, even if AAD had preserved such an objection, we do not consider the Miller Declaration to be hearsay, as it is not an out-of-court statement. In an *inter partes* review, direct testimony is typically provided via affidavit, with cross-examination taken via deposition. 37 C.F.R. § 42.53(a). In this respect, testimony via affidavit before the Board is distinguishable from affidavits submitted in District Court cases cited by AAD, such as *Hilgraeve, Inc. v. Symantec Corp.*, 271 F. Supp. 2d 964 (E.D. Mich. 2003). See *Polaris Wireless, Inc. v. TruePosition, Inc.*, Case IPR2013-00323, slip op. 41 (PTAB Nov. 3, 2014) (Paper 62).

Second, AAD objects to the copyright date on the Sound Blaster reference as hearsay. Mot. Exclude 5–7. Again, AAD has not established that it previously made such an objection, other than the general objection to “Exhibit B” as not being within the

business records exception. This is insufficient to put HTC on notice that AAD was specifically objecting to the copyright date of the reference as hearsay. *See* 37 C.F.R. § 42.64(b)(1) (“The objection must identify the grounds for the objection with sufficient particularity to allow correction in the form of supplemental evidence.”). In any event, we consider the exclusion of the copyright date to be moot, as we do not rely on the copyright date to reach our determination that Sound Blaster was publicly available. Mr. Miller’s testimony that Sound Blaster was publicly available rests on his personal recollection, and merely cites the copyright date as corroboration for that recollection. Ex. 1006, Miller Decl., ¶ 17.

Third, AAD contends that Sound Blaster is not within the business records exception to the hearsay rule. Mot. Exclude 8. While it does appear that AAD previously made this objection, the Motion does not cite to where in the record the objection was made, as required by our Rule 42.64(c). Nevertheless, the application of a hearsay exception is irrelevant, as Sound Blaster is not offered for a hearsay purpose. As a prior art reference, Sound Blaster is offered to show what information it would have conveyed to a person of ordinary skill in the art; the truth of the contents of Sound Blaster is not relevant to this inquiry. *See Joy Techs., Inc. v. Manbeck*, 751 F. Supp. 225, 233 n.2 (D.D.C. 1990), *aff’d*, 959 F.2d 226 (Fed. Cir. 1992); *see EMC Corp. v. Personal Web Techs., LLC*, Case IPR2013-00085, slip op. at 66 (PTAB May 15, 2014) (Paper 73) (“[A] prior art document submitted as a ‘printed publication’ under 35 U.S.C. § 102(b) is offered simply as evidence of what it described, not for proving the truth of the matters addressed in the document.”).

Finally, AAD seeks to exclude Sound Blaster as not authenticated, as there is no evidence to authenticate the reference “except the inadmissible Miller Declaration.” Mot. Exclude 8 (emphasis omitted). We have not found the Miller Declaration to be inadmissible, however. To authenticate an item of evidence, a party must “produce evidence sufficient to support a finding that the item is what the proponent claims it is.” Fed. R. Evid. 901(a). The Miller Declaration provides sufficient evidence to support the finding that Sound Blaster is what HTC contends it to be: a document distributed to the public with the commercially available version of the Sound Blaster 16 Audio Card.

For these reasons, even if AAD’s Motion to Exclude were procedurally proper, we would not exclude Exhibit 1006, including the Sound Blaster reference, from the record.

2. Combinability of References

HTC contends that a person of ordinary skill in the art would have had reason to combine Sound Blaster, Lucente, and Ozawa. Pet. 46–47. First, HTC argues that the references pertain to personal computing devices with similar hardware, for similar purposes of reproducing audio. *Id.* at 46. In addition, HTC argues the devices of Lucente and Ozawa are directed to portable devices, and HTC asserts that a person of ordinary skill in the art would have combined the software of Sound Blaster with these devices to “improv[e] multimedia user experience.” *Id.*

To the contrary, AAD argues that combining Sound Blaster with Lucente would have been outside the level

of ordinary skill at the time of the invention. PO Resp. 43. AAD first focuses on hardware incompatibilities between the tablet computer of Lucente and the software of Sound Blaster. *Id.* AAD argues that “[t]he amount of skill required to make the Lucente device compatible with the Sound Blaster software would substantially exceed the level of ordinary skill.” *Id.* Mr. McAlexander testifies that modification of the Lucente computer to run Sound Blaster would include such drastic steps as “redesign of the battery and thermal management within the housing to provide the designed battery operating time while preventing overheating of the internal circuits” (Ex. 2011 ¶ 25) and redesign of the “entire interface structure of the Sound Blaster 16 audio card . . . from an ISA configuration to a different bus standard, including firmware re-write to conform to the different bus protocol” (*id.* ¶ 27).

Mr. McAlexander also testifies that the Sound Blaster software required a Windows 3.1 operating system, which allegedly was incompatible with the “pen-based computer” disclosed in Lucente. *Id.* ¶ 28. For example, Mr. McAlexander points out Lucente’s recitation of the ability to rotate the display to permit either right-handed or left-handed operation, and states that such a functionality was not provided in Windows 3.1. *Id.* ¶ 30.

In response, HTC argues that AAD focuses too heavily on the physical combinability of the devices disclosed in the references, as opposed to whether the teachings of the references would be combined. Pet. Reply 20–21. HTC submits the testimony of Mr. Schmandt, who testifies that a person of ordinary skill in the art would have recognized that the functionality

of the Sound Blaster software (such as storing and managing audio files, including making playlists) would provide similar benefits in a portable touchscreen computer, such as the one described in Lucente. Ex. 1009 ¶ 181. The disclosures of Sound Blaster and Lucente, according to Mr. Schmandt, would allow a person of ordinary skill in the art to construct a device as claimed in the '888 patent. Ex. 1016 ¶ 52. Mr. Schmandt also addresses Mr. McAlexander's opinion that a person of ordinary skill in the art would have been unable to combine the computer of Lucente with the software of Sound Blaster, and testifies that a person of ordinary skill would have both the knowledge and a reason to combine the teachings of these references. *Id.* ¶¶ 54–65.

In our view, HTC's proposed analysis better comports with the "expansive and flexible approach" to obviousness set forth by the Supreme Court in *KSR*. "The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference." *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Our inquiry is, therefore, not "whether the references could be physically combined but whether the claimed inventions are rendered obvious by the teachings of the prior art as a whole." *In re Etter*, 756 F.2d 852, 859 (Fed. Cir. 1985) (en banc).

Based on the combination of references proposed by HTC, Mr. Schmandt testifies that a person of ordinary skill in the art would have recognized the advantages of Sound Blaster's *functionality*, and sought to incorporate those features into Lucente. Ex. 1009 ¶ 181

(“a person of ordinary skill in the art would be motivated to combine a system with the flexibility, portability, and ease of use of Lucente with the audio management capabilities of Sound Blaster”); *id.* at ¶ 183 (“it would be obvious to design a system with physical (e.g. push-button) controls to carry out the various *functions* designed by Sound Blaster, particularly in view of Lucente and Ozawa”) (emphasis added). The record reflects that such a modification would not have been outside the level of ordinary skill, which both experts define similarly. Ex. 1009 ¶ 25 (Schmandt: at least a bachelor’s degree in electrical engineering, computer science, or equivalent, and 1–3 years of experience in designing and programming consumer electronic devices); Ex. 2007 ¶ 8 (McAlexander: bachelor’s degree in electrical engineering or computer engineering, and at least two years of experience in the design of audio systems). This level of skill is also reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). AAD’s focus on whether the Sound Blaster hardware sound card could be installed on the Lucente device, or whether the Sound Blaster software could run on Lucente’s operating system, ignores that a person of ordinary skill is a “person of ordinary creativity, not an automaton.” *KSR*, 550 U.S. at 421.

Based on the foregoing, we conclude that it would not have been outside the level of ordinary skill in the art, as defined by both experts, to modify the device of Lucente to have the functionality described in Sound Blaster—including grouping and ordering songs—as well as the ability to download songs as described in Ozawa. We, therefore, find that a person of ordinary skill in the art would have had reason to combine the

disclosures of Sound Blaster, Lucente, and Ozawa, and would have had a reasonable expectation of success in doing so.

3. Objective Indicia of Nonobviousness

As discussed above, we have considered AAD's evidence of objective indicia of nonobviousness, but conclude that the evidence is insufficient to support a conclusion of nonobviousness.

4. Conclusion on Obviousness

For the foregoing reasons, HTC has proven by a preponderance of the evidence that Sound Blaster, Lucente, and Ozawa teach all elements of challenged claims 1–15, and that a person of ordinary skill in the art would have had reason to combine the disclosures. Furthermore, we conclude that such a combination would have been within the level of ordinary skill in the art, as evidenced by the prior art of record. We, therefore, conclude that claims 1–15 would have been obvious at the time of the invention, and thus are unpatentable under 35 U.S.C. § 103.

III. CONCLUSION

We conclude that HTC has demonstrated, by a preponderance of the evidence, that claims 1–15 of the '888 patent are unpatentable under 35 U.S.C. § 103, as having been obvious over the following combinations of prior art references:

Claims 1–15: Nathan '259 and Nathan '255; and

Claims 1–15: Sound Blaster, Lucente, and Ozawa.

HTC has not demonstrated, by a preponderance of the evidence, that claims 1–15 are unpatentable under 35 U.S.C. § 103 as having been obvious over Keller and Martin.

IV. ORDER

Accordingly, it is

ORDERED that claims 1–15 of U.S. Patent No. 8,400,888 B2 are *unpatentable*;

FURTHER ORDERED that Patent Owner's Motion to Exclude is *denied*;

FURTHER ORDERED that, pursuant to 35 U.S.C. § 318(b), upon expiration of the time for appeal of this decision, or the termination of any such appeal, a certificate shall issue canceling claims 1–15 in U.S. Patent No. 8,400,888 B2; and

FURTHER ORDERED that, because this is a final decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

For Petitioner:

Bing Ai
Hwa C. Lee
Thomas N. Millikan
Matthew C. Bernstein
Evan S. Day
PERKINS COIE LLP
Ai-ptab@perkinscoie.com
HLee@perkinscoie.com
TMillikan@perkinscoie.com

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MBernstein@perkinscoie.com
EDay@perkinscoie.com

For Patent Owner:

James R. Foley
Timothy M. McCarthy
John S. Paniaguas
CLARK HILL PLC
jfoley@clarkhill.com
tmccarthy@clarkhill.com
jpaniaguas@clarkhill.com

APPENDIX G

Trials@uspto.gov
571-272-7822

Paper 42
Date: January 18, 2017

**UNITED STATES PATENT AND TRADEMARK
OFFICE**

**BEFORE THE PATENT TRIAL AND APPEAL
BOARD**

**Cases¹: IPR2014-01154 (Patent 6,587,403 B1)
IPR2014-01155 (Patent 7,289,393 B2)
IPR2014-01156 (Patent 7,817,502 B2)
IPR2014-01157 (Patent 7,933,171 B2)
IPR2014-01158 (Patent 8,400,888 B2)**

[Filed January 18, 2017]

¹ Patent Owner filed a Request for Rehearing in each of five related *inter partes* review trials. While the Requests contain minor variations in wording or citation, they are identical in substance and raise the same arguments regarding our Final Written Decisions. We, therefore, exercise our discretion to issue a single Decision to be entered in each case.

HTC CORPORATION and HTC AMERICA, INC.,)
Petitioner,)
)
v.)
)
ADVANCED AUDIO DEVICES, LLC,)
Patent Owner.)
)

Before SCOTT A. DANIELS, CHRISTOPHER L. CRUMBLEY, and GEORGIANNA W. BRADEN, *Administrative Patent Judges.*

CRUMBLEY, *Administrative Patent Judge.*

DECISION

Denying Patent Owner's Requests for Rehearing
37 C.F.R. § 42.71(d)

Patent Owner Advanced Audio Devices, LLC ("AAD") requests rehearing of our Final Written Decisions, made at the conclusion of five *inter partes* review trials, determining that the following claims had been proven unpatentable:

IPR2014-01154: claims 1, 3, 6, 7, 11, 12, 16, 22, 24, 27, 29, 30, 35–37, 43, and 45–47 of U.S. Patent No. 6,587,403 B1

IPR2014-01155: claims 1, 3, 6, 7, 9, 11, 25, 30, 59, 77, 82, 85 and 117–122 of U.S. Patent No. 7,289,393 B2

IPR2014-01156: claims 1, 2, 14, 20 and 43–47 of U.S. Patent No. 7,817,502 B2

IPR2014-01157: claims 1, 2, 5, 6, 7, 14, 17, 20,
23, 26, 28, 37, 40, 42, 43 and 45–48 of U.S.
Patent No. 7,933,171 B2

IPR2014-01158: claims 1–15 of U.S. Patent
No. 8,400,888 B2

For the reasons that follow, the requests are *denied*.

I. STANDARD OF REVIEW

A party dissatisfied with a decision of the Board may file a request for rehearing. 37 C.F.R. § 42.71(d). The party requesting rehearing has the burden of showing the decision should be modified, and “[t]he request must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion, an opposition, or a reply.” *Id.*

II. DISCUSSION

AAD contends that, in reaching our Final Written Decisions, we misapprehended or overlooked two aspects of the instituted grounds of unpatentability. IPR2014-01154, Paper 41² (“Req. Reh’g.”), 1. First, AAD argues that we “misapprehended or overlooked certain facts critical to a determination of nonobviousness,” namely the modifications that would be required as part of the Sound Blaster, Lucente, and Ozawa grounds of unpatentability. *Id.* at 1–11. Second, AAD contends that we misapprehended the disclosure of the Nathan

² For simplicity, citations herein are to the record in IPR2014-01154. Similar papers may be found in the records of the related cases.

'259 reference. *Id.* at 12–15. We address these arguments in turn below.

A. The Board Did Not Overlook or Misapprehend the Modifications Involved in Combining Sound Blaster and Lucente

Several of the instituted grounds of unpatentability in these cases were premised on the combination of the Sound Blaster, Lucente, and Ozawa references. Paper 40 (“Dec.”), 3. AAD’s Requests for Rehearing focus on whether a person of ordinary skill in the art would have combined Sound Blaster and Lucente, what modifications would have been required for that combination, and whether those modifications would have been within the level of ordinary skill in the art. Req. Reh’g 1–11.

We note at the outset that the Requests merely re-state arguments presented during trial, each of which we considered and found unpersuasive in reaching our Final Written Decisions. We considered the combinability of Sound Blaster and Lucente explicitly (Dec. 35–39), and determined that “AAD’s focus on whether the Sound Blaster hardware sound card could be installed on the Lucente device, or whether the Sound Blaster software could run on Lucente’s operating system, ignores that a person of ordinary skill is a ‘person of ordinary creativity, not an automaton.’” *Id.* at 38–39 (quoting *KSR Int’l. Co. v. Teleflex Inc.*, 550 U.S. 398, 407, 415 (2007)). We provide further explanation of this determination below.

AAD first argues that our application of *KSR* was in error, and the Supreme Court’s reasoning in that case is distinguishable from the present one based on the

“substantial modifications” needed to combine the prior art here. Req. Reh’g 2–3. These substantial modifications include, according to AAD, “[r]edesign[ing] battery and thermal management to provide designed battery operating time, preventing overheating of the internal circuits,” “[r]edesign[ing] the] entire interface structure of the Sound Blaster card . . . from an ISA configuration to a different bus standard, including a firmware rewrite to conform to the different bus protocol,” and “[r]esolv[ing] Windows 3.1 incompatibility with pen-based Lucente.” *Id.*

We considered these arguments in our Final Written Decisions and found them unpersuasive; they are no more persuasive now. The proposed modifications that are the foundation of AAD’s “substantial modifications” argument are directed either to installing the physical Sound Blaster card into the device of Lucente, or to running the Sound Blaster software on the Lucente device. But HTC’s proposed ground of unpatentability was not that a person of skill in the art would have physically installed the Sound Blaster hardware into Lucente’s device, or that she would have installed Windows 3.1 on Lucente in order to run the Sound Blaster software as commercially sold. Rather, as stated in our Decision:

HTC argues that AAD focuses too heavily on the physical combinability of the devices disclosed in the references, as opposed to whether the teachings of the references would be combined. Pet. Reply 17–18. HTC submits the testimony of Mr. Schmandt, who testifies that a person of ordinary skill in the art would have recognized that the functionality of the Sound Blaster

software (such as storing and managing audio files, including making playlists) would provide similar benefits in a portable touchscreen computer, such as the one described in Lucente. . . . Mr. Schmandt testifies that a person of ordinary skill in the art would have recognized the advantages of Sound Blaster’s *functionality*, and sought to incorporate those features into Lucente.

Dec. 37–38.

For these reasons, the litany of modifications testified to by Mr. McAlexander (Ex. 2003 ¶¶ 24–30) is of no moment to the actual combination proposed by HTC. Based on credible testimony from Mr. Schmandt, we concluded in our Decisions that incorporating the *functionality* of Sound Blaster into the device of Lucente, as HTC proposed, was not outside the level of ordinary skill in the art—a level that the parties do not seriously dispute. *Id.* at 39.

AAD also argues that Windows 3.1 does not support the “main purpose” of Lucente—namely, “an ability to rotate its display”—and therefore, the combination of Windows 3.1 with Lucente would change its principle of operation. Req. Reh’g 5. Again, this assumes that a person of ordinary skill in the art would have installed Windows 3.1 on Lucente in order to run the commercial Sound Blaster software, a premise we have rejected. But even were we to accept AAD’s premise, the argument fails because the presence of a switch to rotate its display is not a “principle of operation” of Lucente’s device, but rather one feature. *See* Ex. 1005, 3:4–38 (describing design of device housing as enabling left- and right-hand use; rotation switch is “in a

preferred system”), 15:20–17:15 (of 11 claims, most focus on housing, only 3 recite switch). We see no reason to conclude that a person of ordinary skill in the art would have been dissuaded from the proposed combination, even if it affected the operation of Lucente’s rotation switch. For the same reasons, we find AAD’s argument that installing Windows 3.1 on Lucente would destroy its “intended functionality” (Req. Reh’g 5–8) to be unpersuasive.

Finally, AAD argues that the combination of Sound Blaster with Lucente would have unpredictable results on its functionality, and focuses on the pen-based nature of the Lucente device. *Id.* at 8–11. Again, this is premised on the installation of Windows 3.1 on Lucente, and the need to adapt Lucente’s pen-based operating system to the Windows operating system. *Id.* at 11 (criticizing HTC’s expert for not testifying whether he has experience converting a device with a pen-based operating system to a Windows operating system). But HTC’s ground of unpatentability is not premised on the installation of Windows 3.1 or the need to use a pen with the resulting device. As AAD recognizes, “[i]t is true that it is the *teachings*, not the actual physical embodiments, of references that are considered in making an obviousness determination under 35 USC 103.” Req. Reh’g 7 (citing *In re Keller*, 642 F.2d 413, 425 (CCPA 1981)). Yet AAD focuses heavily on such bodily incorporation, and its arguments regarding inoperability are not persuasive.

Upon review, we maintain our determination that a person of ordinary skill in the art would have had reason to combine the disclosures of Sound Blaster, Lucente, and Ozawa to add the functionality of Sound

Blaster to the Lucente device, such a combination would have been within the level of ordinary skill, and there would have been a reasonable expectation of success in doing so. AAD has not persuaded us that we overlooked or misapprehended any fact or argument in reaching these determinations.

B. The Board Did Not Misapprehend Nathan '259

The remaining grounds of unpatentability at issue at trial were based, in whole or in part, on the Nathan '259 reference. Dec. 12–29. AAD requests reconsideration, arguing that we misapprehended the disclosure of the reference. Req. Reh'g 12–15. In particular, AAD contests our determination that Nathan '259 discloses the ability to download songs into local storage, then select those songs to be added to a playback queue. *Id.* at 12. Central to this argument is the fact that Nathan '259 does not disclose a delete function; AAD asks, “if songs are stored locally in memory after being deleted from the queue, why is there no teaching or suggestion in Nathan 259 that discloses a ‘delete’ function to delete songs from that memory?” *Id.*

Again, we addressed this line of reasoning in our Final Written Decisions, and AAD only rearticulates the arguments we considered—and rejected—previously. In both our Decisions to Institute and our Final Written Decisions, we relied on the disclosure of Nathan '259 itself to determine that a person of ordinary skill in the art would understand the reference to disclose a “new selection acquisition mode” (“NSAM”) through which new songs are added to the jukebox, and a separate “selection graphics screen” that permits a user to add a song to a queue for playback.

Paper 6, 12–13; Dec. 13. We rejected AAD’s argument that Nathan ’259 discloses only a single queue, from which songs are played and immediately deleted. *Id.*

In response, AAD pointed to the absence of a disclosure of a delete function in Nathan ’259, argued that this meant the Nathan device excluded such a function, and concluded that this required that Nathan ’259 delete songs upon playback. *Id.* at 13–14. We rejected this line of reasoning, because there was insufficient evidence to conclude that a person of ordinary skill in the art would have understood Nathan ’259’s silence regarding a delete function to mean that the reference necessarily *excluded* such a function. *Id.* It was the exclusion of a delete function that formed a critical basis of AAD’s interpretation of Nathan ’259, thus rejecting AAD’s exclusion argument led us to similarly reject its interpretation of the Nathan ’259 disclosure. *Id.*

In the Rehearing Requests, AAD contends that “it is improper for the Board to read functionality into a prior art reference that is not there,” and that our reasoning would permit “virtually any element [to] be read into any reference . . . as long as there is no testimony that a person of ordinary skill would assume the element was to be excluded.” Req. Reh’g 13–14. This mischaracterizes the nature of our prior rulings. We did not hold, as AAD suggests, that Nathan ’259 *discloses* a delete function; nor would such a finding be relevant, as the claims at issue do not require such a function. Rather, as discussed above, AAD’s interpretation of Nathan ’259 is premised on the reference *excluding* a delete function. *See id.* at 14 (“The plain teaching of Nathan 259 is that it does not

have a delete button.”). We found in our Decisions that the record does not support such an exclusion, and AAD presents no persuasive argument that we misapprehended Nathan ’259. We see no reason to modify our finding on rehearing.

In its Requests for Rehearing in the IPR2014-01157 and IPR2014-01158 cases, AAD provides an additional, related argument. Building on its interpretation that Nathan ’259 does not disclose the local storage of sound tracks, AAD argues that the reference cannot meet the limitations of the challenged claims that require a housing containing memory, in which sound tracks are stored. IPR2014-01157, Paper 42, 13–14; IPR2014-01158, Paper 37, 13–14. This argument, that the sound tracks of Nathan ’259 must be stored remotely, and therefore in memory not within the housing, is unpersuasive of error. As stated above, we maintain our finding that the Nathan references disclose local storage of sound tracks, and therefore AAD’s arguments in these two Requests for Rehearing do not persuade us that we overlooked any claim element not disclosed by the prior art.

III. CONCLUSION

For the foregoing reasons, we are not persuaded that AAD’s Requests for Rehearing have established that we misapprehended or overlooked any matter in reaching our conclusion that the challenged claims are unpatentable.

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IV. ORDER

Accordingly, it is

ORDERED that Patent Owner's Requests for Rehearing are *denied*.

For Petitioner:

Bing Ai
Hwa C. Lee
Thomas N. Millikan
Matthew C. Bernstein
Evan S. Day
PERKINS COIE LLP
Ai-ptab@perkinscoie.com
HLee@perkinscoie.com
TMillikan@perkinscoie.com
MBernstein@perkinscoie.com
EDay@perkinscoie.com

For Patent Owner:

James R. Foley
Timothy M. McCarthy
John S. Paniaguas
CLARK HILL PLC
jfoley@clarkhill.com
tmccarthy@clarkhill.com
jpaniaguas@clarkhill.com

APPENDIX H

28 U.S.C. § 1254 (1) - Courts of appeals; certiorari; certified questions

Cases in the courts of appeals may be reviewed by the Supreme Court by the following methods:

(1) By writ of certiorari granted upon the petition of any party to any civil or criminal case, before or after rendition of judgment or decree;

* * *

35 U.S.C. § 154 - Contents and term of patent; provisional rights

(a) In General.—

(1) Contents.—

Every patent shall contain a short title of the invention and a grant to the patentee, his heirs or assigns, of the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States, and, if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States, or importing into the United States, products made by that process, referring to the specification for the particulars thereof.

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(2) Term.—

Subject to the payment of fees under this title, such grant shall be for a term beginning on the date on which the patent issues and ending 20 years from the date on which the application for the patent was filed in the United States or, if the application contains a specific reference to an earlier filed application or applications under section 120, 121, 365(c), or 386(c), from the date on which the earliest such application was filed.

(3) Priority.—

Priority under section 119, 365(a), 365(b), 386(a), or 386(b) shall not be taken into account in determining the term of a patent.

(4) Specification and drawing.—

A copy of the specification and drawing shall be annexed to the patent and be a part of such patent.

(b) Adjustment of Patent Term.—

(1) Patent term guarantees.—

(A) Guarantee of prompt patent and trademark office responses.—Subject to the limitations under paragraph (2), if the issue of an original patent is delayed due to the failure of the Patent and Trademark Office to—

(i) provide at least one of the notifications under section 132 or a notice of allowance under section 151 not later than 14 months after—

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(I) the date on which an application was filed under section 111(a); or

(II) the date of commencement of the national stage under section 371 in an international application;

(ii) respond to a reply under section 132, or to an appeal taken under section 134, within 4 months after the date on which the reply was filed or the appeal was taken;

(iii) act on an application within 4 months after the date of a decision by the Patent Trial and Appeal Board under section 134 or 135 or a decision by a Federal court under section 141, 145, or 146 in a case in which allowable claims remain in the application; or

(iv) issue a patent within 4 months after the date on which the issue fee was paid under section 151 and all outstanding requirements were satisfied,

the term of the patent shall be extended 1 day for each day after the end of the period specified in clause (i), (ii), (iii), or (iv), as the case may be, until the action described in such clause is taken.

(B) Guarantee of no more than 3-year application pendency.—Subject to the limitations under paragraph (2), if the issue of an original patent is delayed due to the failure of the United States Patent and Trademark Office to issue a patent within 3 years after the actual

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filing date of the application under section 111(a) in the United States or, in the case of an international application, the date of commencement of the national stage under section 371 in the international application, not including—

(i) any time consumed by continued examination of the application requested by the applicant under section 132(b);

(ii) any time consumed by a proceeding under section 135(a), any time consumed by the imposition of an order under section 181, or any time consumed by appellate review by the Patent Trial and Appeal Board or by a Federal court; or

(iii) any delay in the processing of the application by the United States Patent and Trademark Office requested by the applicant except as permitted by paragraph (3)(C),

the term of the patent shall be extended 1 day for each day after the end of that 3-year period until the patent is issued.

(C) Guarantee of adjustments for delays due to derivation proceedings, secrecy orders, and appeals.—Subject to the limitations under paragraph (2), if the issue of an original patent is delayed due to—

(i) a proceeding under section 135(a);

(ii) the imposition of an order under section 181; or

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(iii) appellate review by the Patent Trial and Appeal Board or by a Federal court in a case in which the patent was issued under a decision in the review reversing an adverse determination of patentability,

the term of the patent shall be extended 1 day for each day of the pendency of the proceeding, order, or review, as the case may be.

(2) Limitations.—

(A) In general.—

To the extent that periods of delay attributable to grounds specified in paragraph (1) overlap, the period of any adjustment granted under this subsection shall not exceed the actual number of days the issuance of the patent was delayed.

(B) Disclaimed term.—

No patent the term of which has been disclaimed beyond a specified date may be adjusted under this section beyond the expiration date specified in the disclaimer.

(C) Reduction of period of adjustment.—

(i) The period of adjustment of the term of a patent under paragraph (1) shall be reduced by a period equal to the period of time during which the applicant failed to engage in reasonable efforts to conclude prosecution of the application.

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(ii) With respect to adjustments to patent term made under the authority of paragraph (1)(B), an applicant shall be deemed to have failed to engage in reasonable efforts to conclude processing or examination of an application for the cumulative total of any periods of time in excess of 3 months that are taken to respond to a notice from the Office making any rejection, objection, argument, or other request, measuring such 3-month period from the date the notice was given or mailed to the applicant.

(iii) The Director shall prescribe regulations establishing the circumstances that constitute a failure of an applicant to engage in reasonable efforts to conclude processing or examination of an application.

(3) Procedures for patent term adjustment determination.—

(A) The Director shall prescribe regulations establishing procedures for the application for and determination of patent term adjustments under this subsection.

(B) Under the procedures established under subparagraph (A), the Director shall—

(i) make a determination of the period of any patent term adjustment under this subsection, and shall transmit a notice of that determination no later than the date of issuance of the patent; and

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(ii) provide the applicant one opportunity to request reconsideration of any patent term adjustment determination made by the Director.

(C) The Director shall reinstate all or part of the cumulative period of time of an adjustment under paragraph (2)(C) if the applicant, prior to the issuance of the patent, makes a showing that, in spite of all due care, the applicant was unable to respond within the 3-month period, but in no case shall more than three additional months for each such response beyond the original 3-month period be reinstated.

(D) The Director shall proceed to grant the patent after completion of the Director's determination of a patent term adjustment under the procedures established under this subsection, notwithstanding any appeal taken by the applicant of such determination.

(4) Appeal of patent term adjustment determination.—

(A) An applicant dissatisfied with the Director's decision on the applicant's request for reconsideration under paragraph (3)(B)(ii) shall have exclusive remedy by a civil action against the Director filed in the United States District Court for the Eastern District of Virginia within 180 days after the date of the Director's decision on the applicant's request for reconsideration. Chapter 7 of title 5 shall apply to such action. Any final judgment resulting in a change to the period of adjustment of the patent term shall be

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served on the Director, and the Director shall thereafter alter the term of the patent to reflect such change.

(B) The determination of a patent term adjustment under this subsection shall not be subject to appeal or challenge by a third party prior to the grant of the patent.

(c) Continuation.—

(1) Determination.—

The term of a patent that is in force on or that results from an application filed before the date that is 6 months after the date of the enactment of the Uruguay Round Agreements Act shall be the greater of the 20-year term as provided in subsection (a), or 17 years from grant, subject to any terminal disclaimers.

(2) Remedies.—The remedies of sections 283, 284, and 285 shall not apply to acts which—

(A) were commenced or for which substantial investment was made before the date that is 6 months after the date of the enactment of the Uruguay Round Agreements Act; and

(B) became infringing by reason of paragraph (1).

(3) Remuneration.—

The acts referred to in paragraph (2) may be continued only upon the payment of an equitable remuneration to the patentee that is determined in an action brought under chapter 28 and chapter 29

(other than those provisions excluded by paragraph (2)).

(d) Provisional Rights.—

(1) In general.—In addition to other rights provided by this section, a patent shall include the right to obtain a reasonable royalty from any person who, during the period beginning on the date of publication of the application for such patent under section 122(b), or in the case of an international application filed under the treaty defined in section 351(a) designating the United States under Article 21(2)(a) of such treaty or an international design application filed under the treaty defined in section 381(a)(1) designating the United States under Article 5 of such treaty, the date of publication of the application, and ending on the date the patent is issued—

(A)

(i) makes, uses, offers for sale, or sells in the United States the invention as claimed in the published patent application or imports such an invention into the United States; or

(ii) if the invention as claimed in the published patent application is a process, uses, offers for sale, or sells in the United States or imports into the United States products made by that process as claimed in the published patent application; and

(B) had actual notice of the published patent application and, in a case in which the right arising under this paragraph is based upon an

international application designating the United States that is published in a language other than English, had a translation of the international application into the English language.

(2) Right based on substantially identical inventions.—

The right under paragraph (1) to obtain a reasonable royalty shall not be available under this subsection unless the invention as claimed in the patent is substantially identical to the invention as claimed in the published patent application.

(3) Time limitation on obtaining a reasonable royalty.—

The right under paragraph (1) to obtain a reasonable royalty shall be available only in an action brought not later than 6 years after the patent is issued. The right under paragraph (1) to obtain a reasonable royalty shall not be affected by the duration of the period described in paragraph (1).

(4) Requirements for international applications.—

(A) Effective date.—

The right under paragraph (1) to obtain a reasonable royalty based upon the publication under the treaty defined in section 351(a) of an international application designating the United States shall commence on the date of publication under the treaty of the international application, or, if the publication under the treaty of the

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international application is in a language other than English, on the date on which the Patent and Trademark Office receives a translation of the publication in the English language.

(B) Copies.—

The Director may require the applicant to provide a copy of the international application and a translation thereof.

35 U.S.C. § 311 - Inter partes review

(a) In General.—

Subject to the provisions of this chapter, a person who is not the owner of a patent may file with the Office a petition to institute an inter partes review of the patent. The Director shall establish, by regulation, fees to be paid by the person requesting the review, in such amounts as the Director determines to be reasonable, considering the aggregate costs of the review.

(b) Scope.—

A petitioner in an inter partes review may request to cancel as unpatentable 1 or more claims of a patent only on a ground that could be raised under section 102 or 103 and only on the basis of prior art consisting of patents or printed publications.

(c) Filing Deadline.—A petition for inter partes review shall be filed after the later of either—

- (1) the date that is 9 months after the grant of a patent; or
- (2) if a post-grant review is instituted under chapter 32, the date of the termination of such post-grant review.

35 U.S.C. § 312 - Petitions

(a) Requirements of Petition.—A petition filed under section 311 may be considered only if—

(1) the petition is accompanied by payment of the fee established by the Director under section 311;

(2) the petition identifies all real parties in interest;

(3) the petition identifies, in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim, including—

(A) copies of patents and printed publications that the petitioner relies upon in support of the petition; and

(B) affidavits or declarations of supporting evidence and opinions, if the petitioner relies on expert opinions;

(4) the petition provides such other information as the Director may require by regulation; and

(5) the petitioner provides copies of any of the documents required under paragraphs (2), (3), and (4) to the patent owner or, if applicable, the designated representative of the patent owner.

(b) Public Availability.—

As soon as practicable after the receipt of a petition under section 311, the Director shall make the petition available to the public.

35 U.S.C. § 313 - Preliminary response to petition

If an inter partes review petition is filed under section 311, the patent owner shall have the right to file a preliminary response to the petition, within a time period set by the Director, that sets forth reasons why no inter partes review should be instituted based upon the failure of the petition to meet any requirement of this chapter.

35 U.S.C. § 314 - Institution of inter partes review

(a) Threshold.—

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 that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.

(b) Timing.—The Director shall determine whether to institute an inter partes review under this chapter pursuant to a petition filed under section 311 within 3 months after—

(1) receiving a preliminary response to the petition under section 313; or

(2) if no such preliminary response is filed, the last date on which such response may be filed.

(c) Notice.—

The Director shall notify the petitioner and patent owner, in writing, of the Director's determination

under subsection (a), and shall make such notice available to the public as soon as is practicable. Such notice shall include the date on which the review shall commence.

(d) No Appeal.—

The determination by the Director whether to institute an inter partes review under this section shall be final and nonappealable.

35 U.S.C. § 315 - Relation to other proceedings or actions

(a) Infringer's Civil Action.—

(1) Inter partes review barred by civil action.—

An inter partes review may not be instituted if, before the date on which the petition for such a review is filed, the petitioner or real party in interest filed a civil action challenging the validity of a claim of the patent.

(2) Stay of civil action.—If the petitioner or real party in interest files a civil action challenging the validity of a claim of the patent on or after the date on which the petitioner files a petition for inter partes review of the patent, that civil action shall be automatically stayed until either—

(A) the patent owner moves the court to lift the stay;

(B) the patent owner files a civil action or counterclaim alleging that the petitioner or real party in interest has infringed the patent; or

(C) the petitioner or real party in interest moves the court to dismiss the civil action.

(3) Treatment of counterclaim.—

A counterclaim challenging the validity of a claim of a patent does not constitute a civil action challenging the validity of a claim of a patent for purposes of this subsection.

(b) Patent Owner's Action.—

An inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent. The time limitation set forth in the preceding sentence shall not apply to a request for joinder under subsection (c).

(c) Joinder.—

If the Director institutes an inter partes review, the Director, in his or her discretion, may join as a party to that inter partes review any person who properly files a petition under section 311 that the Director, after receiving a preliminary response under section 313 or the expiration of the time for filing such a response, determines warrants the institution of an inter partes review under section 314.

(d) Multiple Proceedings.—

Notwithstanding sections 135(a), 251, and 252, and chapter 30, during the pendency of an inter partes review, if another proceeding or matter involving the patent is before the Office, the Director may determine the manner in which the inter partes review or other

proceeding or matter may proceed, including providing for stay, transfer, consolidation, or termination of any such matter or proceeding.

(e) Estoppel.—

(1) Proceedings before the office.—

The petitioner in an inter partes review of a claim in a patent under this chapter that results in a final written decision under section 318(a), or the real party in interest or privy of the petitioner, may not request or maintain a proceeding before the Office with respect to that claim on any ground that the petitioner raised or reasonably could have raised during that inter partes review.

(2) Civil actions and other proceedings.—

The petitioner in an inter partes review of a claim in a patent under this chapter that results in a final written decision under section 318(a), or the real party in interest or privy of the petitioner, may not assert either in a civil action arising in whole or in part under section 1338 of title 28 or in a proceeding before the International Trade Commission under section 337 of the Tariff Act of 1930 that the claim is invalid on any ground that the petitioner raised or reasonably could have raised during that inter partes review.

35 U.S.C. § 316 - Conduct of inter partes review

(a) Regulations.—The Director shall prescribe regulations—

(1) providing that the file of any proceeding under this chapter shall be made available to the public, except that any petition or document filed with the intent that it be sealed shall, if accompanied by a motion to seal, be treated as sealed pending the outcome of the ruling on the motion;

(2) setting forth the standards for the showing of sufficient grounds to institute a review under section 314(a);

(3) establishing procedures for the submission of supplemental information after the petition is filed;

(4) establishing and governing inter partes review under this chapter and the relationship of such review to other proceedings under this title;

(5) setting forth standards and procedures for discovery of relevant evidence, including that such discovery shall be limited to—

(A) the deposition of witnesses submitting affidavits or declarations; and

(B) what is otherwise necessary in the interest of justice;

(6) prescribing sanctions for abuse of discovery, abuse of process, or any other improper use of the proceeding, such as to harass or to cause unnecessary delay or an unnecessary increase in the cost of the proceeding;

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(7) providing for protective orders governing the exchange and submission of confidential information;

(8) providing for the filing by the patent owner of a response to the petition under section 313 after an inter partes review has been instituted, and requiring that the patent owner file with such response, through affidavits or declarations, any additional factual evidence and expert opinions on which the patent owner relies in support of the response;

(9) setting forth standards and procedures for allowing the patent owner to move to amend the patent under subsection (d) to cancel a challenged claim or propose a reasonable number of substitute claims, and ensuring that any information submitted by the patent owner in support of any amendment entered under subsection (d) is made available to the public as part of the prosecution history of the patent;

(10) providing either party with the right to an oral hearing as part of the proceeding;

(11) requiring that the final determination in an inter partes review be issued not later than 1 year after the date on which the Director notices the institution of a review under this chapter, except that the Director may, for good cause shown, extend the 1-year period by not more than 6 months, and may adjust the time periods in this paragraph in the case of joinder under section 315(c);

(12) setting a time period for requesting joinder under section 315(c); and

(13) providing the petitioner with at least 1 opportunity to file written comments within a time period established by the Director.

(b) Considerations.—

In prescribing regulations under this section, the Director shall consider the effect of any such regulation on the economy, the integrity of the patent system, the efficient administration of the Office, and the ability of the Office to timely complete proceedings instituted under this chapter.

(c) Patent Trial and Appeal Board.—

The Patent Trial and Appeal Board shall, in accordance with section 6, conduct each inter partes review instituted under this chapter.

(d) Amendment of the Patent.—

(1) In general.—During an inter partes review instituted under this chapter, the patent owner may file 1 motion to amend the patent in 1 or more of the following ways:

(A) Cancel any challenged patent claim.

(B) For each challenged claim, propose a reasonable number of substitute claims.

(2) Additional motions.—

Additional motions to amend may be permitted upon the joint request of the petitioner and the patent owner to materially advance the settlement of a proceeding under section 317, or as permitted by regulations prescribed by the Director.

(3) Scope of claims.—

An amendment under this subsection may not enlarge the scope of the claims of the patent or introduce new matter.

(e) Evidentiary Standards.—

In an inter partes review instituted under this chapter, the petitioner shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence.

35 U.S.C. § 317 - Settlement

(a) In General.—

An inter partes review instituted under this chapter shall be terminated with respect to any petitioner upon the joint request of the petitioner and the patent owner, unless the Office has decided the merits of the proceeding before the request for termination is filed. If the inter partes review is terminated with respect to a petitioner under this section, no estoppel under section 315(e) shall attach to the petitioner, or to the real party in interest or privy of the petitioner, on the basis of that petitioner's institution of that inter partes review. If no petitioner remains in the inter partes review, the Office may terminate the review or proceed to a final written decision under section 318(a).

(b) Agreements in Writing.—

Any agreement or understanding between the patent owner and a petitioner, including any collateral agreements referred to in such agreement or understanding, made in connection with, or in

contemplation of, the termination of an inter partes review under this section shall be in writing and a true copy of such agreement or understanding shall be filed in the Office before the termination of the inter partes review as between the parties. At the request of a party to the proceeding, the agreement or understanding shall be treated as business confidential information, shall be kept separate from the file of the involved patents, and shall be made available only to Federal Government agencies on written request, or to any person on a showing of good cause.

35 U.S.C. § 318 - Decision of the Board

(a) Final Written Decision.—

If an inter partes review is instituted and not dismissed under this chapter, the Patent Trial and Appeal Board shall issue a final written decision with respect to the patentability of any patent claim challenged by the petitioner and any new claim added under section 316(d).

(b) Certificate.—

If the Patent Trial and Appeal Board issues a final written decision under subsection (a) and the time for appeal has expired or any appeal has terminated, the Director shall issue and publish a certificate canceling any claim of the patent finally determined to be unpatentable, confirming any claim of the patent determined to be patentable, and incorporating in the patent by operation of the certificate any new or amended claim determined to be patentable.

(c) Intervening Rights.—

Any proposed amended or new claim determined to be patentable and incorporated into a patent following an inter partes review under this chapter shall have the same effect as that specified in section 252 for reissued patents on the right of any person who made, purchased, or used within the United States, or imported into the United States, anything patented by such proposed amended or new claim, or who made substantial preparation therefor, before the issuance of a certificate under subsection (b).

(d) Data on Length of Review.—

The Office shall make available to the public data describing the length of time between the institution of, and the issuance of a final written decision under subsection (a) for, each inter partes review.

35 U.S.C. § 319 - Appeal

A party dissatisfied with the final written decision of the Patent Trial and Appeal Board under section 318(a) may appeal the decision pursuant to sections 141 through 144. Any party to the inter partes review shall have the right to be a party to the appeal.

APPENDIX I

EMPIRICAL DATA ANALYSIS

The impact of IPR on validity determinations was analyzed by comparing the percentage of PTAB outcomes where claims were invalidated with the percentage of district court cases that found invalidity prior to IPR taking effect. Docket Navigator[®] district court data for January 1, 2008 to September 16, 2012 is not strictly comparable to the data available from the USPTO/PTAB.

Docket Navigator[®] district court data aggregates “invalidity” determinations based on 35 U.S.C. §§ 101, 102, 103 and 112, whereas IPR validity challenges are limited to 35 U.S.C. §§ 102 and 103 and are based only on prior art consisting of patents and printed publications. Nevertheless, the analysis demonstrates that IPR has had a devastating impact on the likelihood of surviving a validity challenge.

USPTO/PTAB Data

The PTAB commenced post grant petitions September 16, 2012. Data for PTAB post grant petitions are available on the U.S. Patent and Trademark Office (“USPTO”) website.¹

¹ *Trial Statistics IPR, PGR, CBM Patent Trial and Appeal Board June 2018* (see pages 3 & 11) https://www.uspto.gov/sites/default/files/documents/trial_statistics_20180630.pdf

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Of the 8,747 petitions filed from September 16, 2012 to June 30, 2018, the vast majority were IPR petitions (8,072 or 92%). USPTO/PTAB data, heavily weighted in favor of IPR petitions, are used as an empirical estimate of IPR outcomes.

Of 2,213 petitions taken to final written decision, 1,785 (360 + 1,425) had some or all challenged claims invalidated as Unpatentable. Although this number also includes CBM and PGR decisions, those account for only 8% of the total post grant petitions. Thus, the invalidation percentage for IPR proceedings in the PTAB is about 80% ($1,785 \div 2,213 = 80.7\%$).

District Court Data

Docket Navigator^{®2}, a searchable database, is available by subscription at www.docketnavigator.com. The database includes statistics on district court cases, and lends itself to readily compiling various data in searches using input parameters to create custom reports.

Observations

The USPTO/PTAB data and the Docket Navigator[®] database searches are summarized along with the parameters and time frames used in generating those searches. See App. 243. District court cases decided from January 1, 2008 to September 16, 2012 (when IPR took effect) with determination parameters of “invalid” or “not invalid” totaled 3,969 in number. Of those, 964 had a determination parameter of “invalid.” The

² Docket Navigator[®] is a registered trademark of the Hopkins Bruce Research Corporation.

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district court invalidation percentage rate is $964 \div 3,969 = 24.3\%$.

Thus, during the 4.7 year (1,716 day) period immediately prior to IPR taking effect, in district court cases where patent validity was determined, invalidity was decided 24.3% of the time. This compares with an 80.7% invalidation rate reported by the USPTO/PTAB during the 5.8 year (2,117 day) period since IPR took effect.

This analysis shows that District Courts previously invalidated a much lower percentage of patents than has the PTAB since IPR took effect. Invalidation by Article I PTAB administrative tribunals is more than three times more likely to occur than in similar proceedings decided prior to IPR by an Article III court of law (80% versus 24.3%).

	<u>District Court Decisions</u>	<u>Number of Cases</u>	
Start	1/1/2008	964	Invalidity Decisions
End	9/16/2012	3,969	Total Validity Determinations
# days	1,716	24.3%	Invalidity Percentage
	<u>PTAB Decisions</u>	<u>Number of Cases</u>	
Start	9/16/2012	1,785	Invalidity Decisions
End	06/30/2018	2,213	Total Validity Determinations
# days	2,117	80.7%	Invalidity Percentage
The PTAB found invalidity		3.3	times more often than District Courts