

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HTC CORPORATION and HTC AMERICA, INC.,
Petitioner,

v.

ADVANCED AUDIO DEVICES, LLC,
Patent Owner.

Case IPR2014-01157
Patent 7,933,171 B2

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

CRUMBLEY, *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 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 HTC filed an Opposition (Paper 22, "Amend Opp."), and AAD filed a Reply (Paper 25, "Amend Reply").

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 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 a compact disc in real time, but did not provide editing functions, the

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.

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 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,
- 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-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 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;
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.

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.

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.

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

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).

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

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.

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

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.

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.

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;

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.”).

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:

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

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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.

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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