

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LINKPLAY TECHNOLOGY INC.

Petitioner

v.

SONOS, INC.

Patent Owner

IPR2025-00509

U.S. Patent No. 10,853,023

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT 10,853,023

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EX1003	Declaration of Dr. Bruce Hartpence
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EX1022	The “Only” Coke Machine on the Internet
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I. INTRODUCTION

Linkplay Technology Inc. (“Linkplay” or “Petitioner”) petitions for *inter partes* review (“IPR”) of claims 1-17 (“challenged claims”) of U.S. Patent No. 10,853,023 (EX1001, hereinafter the “’023 Patent”) assigned to Sonos, Inc. (“Sonos” or “Patent Owner”).

The ’023 Patent relates to audio playback devices and the challenged claims recite automatically switching to a priority input when that priority input is detected. Playback devices which prioritized different audio inputs was well-known in the art prior to April 18, 2011, the earliest possible priority date of the ’023 Patent. For instance, U.S. Patent Application Publication No. 2010/0325323 (EX1005, hereinafter “Barbe”) discloses a method “for automatically managing and selecting digital and/or analog sources available at the input of an audio or an audio/video system,” which automatically switches to a new source when that new source is activated. *See* Barbe, [0001], [0019]. Similarly, U.S. Patent Application Publication No. 2004/0157555 (EX1004, hereinafter “Richenstein”) discloses receiving audio from a priority channel, such as a baby monitor, and automatically switching playback to that priority channel when a signal is detected. Richenstein, [0048], [0147].

The ’023 Patent’s dependent claims merely represent minor design variations or industry-standard practices, all of which were known or obvious, as demonstrated

by the cited prior art references. Some dependent claims require the use of multiple playback devices, which is a technique well-known in the art as home theatre systems and multi-speaker systems were well known as of 2011. Other dependent claims require the source of the audio to have wireless or video capabilities, which was also well known as of 2011, four years after the launches of the first generations of iPhone and iPod Touch.

Petitioner's expert, Dr. Bruce Hartpence, who has decades of experience in information technology, confirms that the challenged claims are unpatentable over these references.

Petitioner thus respectfully requests the Board cancel the challenged claims.

II. RELIEF REQUESTED

Under 35 U.S.C. § 311, Petitioner requests IPR of claims 1-17 of the '023 Patent.

A. Claims for Which Review Is Requested

Petitioner requests IPR and cancellation of challenged claims 1-17 of the '023 Patent under 35 U.S.C. § 311 based on the following grounds. This Petition is supported by the Declaration of Dr. Bruce Hartpence ("Hartpence Decl.," EX1003).

B. Statutory Grounds of Challenge

Petitioner relies on the following prior art and statutory grounds of challenge to claims 1-17 of the '023 Patent:

Name	Ex.	Publication No.	Filed	Published	Prior art under at least
Barbe ¹	1005	US2010/0325323	9/2/2010 ²	12/23/2010	§ 102(a)
Richenstein	1004	US2004/0157555	10/22/2003	8/12/2004	§§ 102(a), (b), (e)

Ground	Claims	Basis	References
1	1-17	§ 102	Barbe (EX1005)
2	3-6, 10-12, 16-17	§ 103	Barbe (EX1005)
3	1-17	§ 102	Richenstein (EX1004)
4	1-17	§ 103	Richenstein (EX1004)

Barbe and Richenstein were published before the earliest possible priority date of the '023 Patent, April 18, 2011, and therefore qualify as prior art under pre-AIA 35 U.S.C. § 102(a). Further, Richenstein was filed in the U.S. before the earliest possible U.S. filing date of the '023 Patent, April 18, 2011, and therefore also qualify as prior art under pre-AIA 35 U.S.C. § 102(e). In addition, Richenstein was published more than one year earlier than the earliest possible priority date of the '023 Patent, and therefore further qualifies as prior art under pre-AIA 35 U.S.C. § 102(b).

¹ Barbe is the U.S. national phase (under § 371) of International App. No. PCT/FR2008/001206 (*see* EX1001, cover page, items (22), (86)), which was itself published as WO 2009/060135 A2 on May 14, 2009. WO 2009/060135 A2 independently qualifies as 102(b) prior art. To the extent Barbe is later shown not a qualified 102(a) art, Petitioner submits that WO 2009/060135 A2 also anticipates claims 1-17 and renders obvious claims 3-6, 10-12, and 16-17 as alternative grounds to Grounds 1 and 2. Because WO 2009/060135 A2 was published from the same International application as Barbe under the relevant PCT and U.S. national rules, it shall be considered disclosing identical subject matter to Barbe. Therefore, same citations to Barbe are made in the Petition for convenience.

² § 371 (c) date, not relied on as prior art date.

III. THE '023 PATENT

A. Overview

The '023 Patent (EX1001) is “directed towards technology for use in the area of consumer electronics” and, in particular, to “smart line-in processing” features for use “in an audio environment.” '023 Patent, 1:26-30.

With respect to Fig. 11, the '023 Patent discloses a “[s]ystem 1100” which “includes a playback device 1102, a first source 1104, a second source 1107 having a line-in connector 1108, and an audio device 1110.” '023 Patent, 23:28-32.

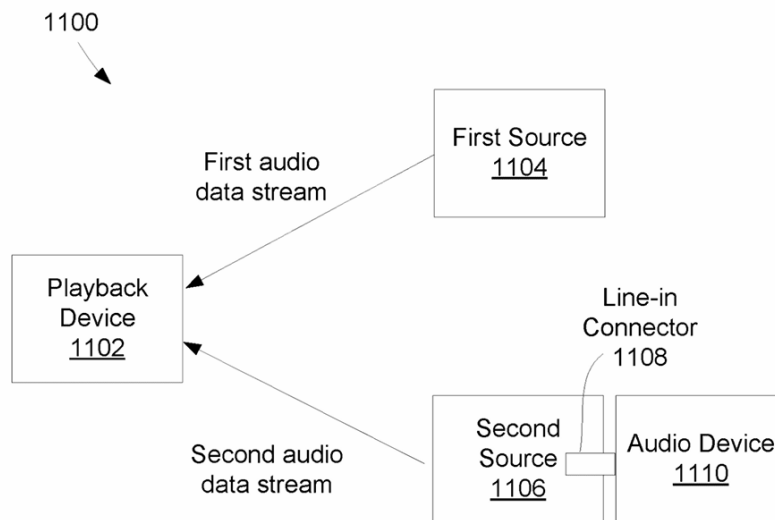


FIG. 11

'023 Patent, Fig. 11.

The '023 Patent describes a scenario where “[t]he second source 1106 is configured, such that when a signal is detected on the line-in connector 1108, the second source 1106 automatically switches the playback device 1102 to play audio

from the audio device 1110 via the second audio data stream.” ’023 Patent, 23:63-67. This automatic source-switching may be done in response to “the second source 1106 detect[ing] a signal on the line-in connector 1108 for a threshold time (e.g., 300 milliseconds or less).” ’023 Patent, 24:2-4. This automatic source switching “may override the playing of the first audio data stream.” ’023 Patent, 24:4-8.

B. Prosecution History

The ’023 Patent has a U.S. filing date of October 22, 2018, and claims to be a continuation of Application No. 15/583,553, filed on May 1, 2017, which claims to be a continuation of Application No. 14/628,999, filed on Feb. 23, 2015, now Pat. No. 9,686,606, which claims to be a continuation of Application No. 14/561,421, filed on Dec. 5, 2014, now Pat. No. 9,681,223, which claims to be a continuation of Application No. 13/089,167, filed on Apr. 18, 2011, now Pat. No. 8,938,312. Patent Owner asserts that the invention date of the ’023 patent was at least by April 18, 2011.

When the application that lead to the ’023 Patent, U.S. Patent Application No. 16/166,518, was filed, no claims were submitted. EX1002, 1210-1292. Applicant subsequently submitted a preliminary amendment, adding claims, EX1002, 1192-1198, and noting that “[t]he subject matter of the amendments can be found generally throughout Applicant’s originally-filed specification, including but not limited to Fig. 11 and paragraphs 133-136.” EX1002, 1199. Paragraphs 133-136 correspond to

Section VIII of the specification, titled “Example Smart line-in processing,” which is represented in column 23, line 25 to column 24, line 41 of the ’023 Patent. *Compare* EX1002, 1286-1292 *with* ’023 Patent, 23:25-24:41.

In the first Office Action on the merits, the Examiner rejected then-pending claims 1-20 under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication 2004/0239816, U.S. Patent 7,571,014, and U.S. Patent Publication No. 2006/0029005. *See* EX1002, 308. The Examiner also rejected claims 1, 9, and 16 under 35 U.S.C. § 101 as claiming the same invention (double patenting) as that of claim 1 of prior U.S. Patent No. 8,938,312. *See* EX1002, 305.

Applicant responded, arguing that the prior art did not disclose “in response to determining that the playback device is no longer receiving the first type of media content, ceasing playback of the first type of media content and rearming the playback device so that subsequent receipt of the first type of media content preempts playback of the second type of media content.” *See* EX1002, 160-162. Applicant also requested the double-patenting rejection be held in abeyance until the claims were deemed patentable. *See* EX1002, 160.

The Examiner subsequently initiated an interview, which resulted in the Applicant submitting a terminal disclaimer relative to U.S. Patent No. 8,938,312. *See* EX1002, 123, 131. In another interview with the Examiner, the Applicant and the Examiner reached an agreement. *See* EX1002, 20. This resulted in a Notice of

Allowance including an Examiner's amendment adding the phrase "via a line-in connector" to all independent claims. *See* EX1002, 14-17. The Notice of Allowance concluded that "the prior art does not teach or suggest the instant networked audio player(s) comprising a dedicated line in connector ...". EX1002, 18.

C. The Level of Ordinary Skill in the Art

A person of ordinary skill in the art (POSITA) at the time of the claimed invention would have had a Bachelor's degree in electrical engineering, computer engineering, computer science, information technology, or a related field, along with at least two years of experience in the design or development of connected consumer electronics, networked engineering, or the equivalent. EX1003, ¶16. Additional graduate education could substitute for professional experience, or significant experience in the field could substitute for formal education. EX1003, ¶16.

IV. CLAIM CONSTRUCTION

Claim terms subject to IPR are construed under *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005). 37 C.F.R. § 42.100(b). Only terms necessary to resolve the controversy need construction. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor*, 868 F.3d 1013, 1017 (Fed. Cir. 2017). Because the prior art asserted herein discloses embodiments indisputably within the claims' scope, the Board need not construe the claims' outer bounds, and all claim terms should be construed according to their plain and ordinary meaning. EX1003, ¶¶45-46. Claim

construction has not begun in the co-pending litigation to which Petitioner is a party and decisions will not issue until after the institution decision in this IPR.³

Although no term of the '023 Patent has been previously construed, the '023 Patent is a continuation of U.S. Patent No. 8,938,312 (EX1007) and this patent was asserted in *Sonos, Inc. v. D&M Holdings, Inc.*, 1:14-cv-01330-RGA and certain terms were construed by the District Court of Delaware. *See* EX1006. Dr. Bruce Hartpence considered these previous constructions and confirms that the prior art applied herein still discloses the relevant claim limitations under the previous constructions. EX1003, ¶46.

<u>Terms</u>	<u>Previous Construction</u>
playback device	data network device configured to process and output audio
network interface	physical component of a device that provides an interconnection with a data network
audio signal ⁴	Plain and ordinary meaning/no construction necessary
line-in connector	Plain and ordinary meaning/no construction necessary

V. GROUNDS 1-2: BARBE ANTICIPATES CLAIMS 1-17 AND RENDERS OBVIOUS CLAIMS 3-6, 10-12, AND 16-17

A. Overview of Barbe

Barbe (EX1005) discloses “a method and a device for automatically managing and selecting digital and/or analog sources available at the input of an audio or an

³ To the extent necessary, Petitioner reserves the opportunity to address those constructions later in the trial.

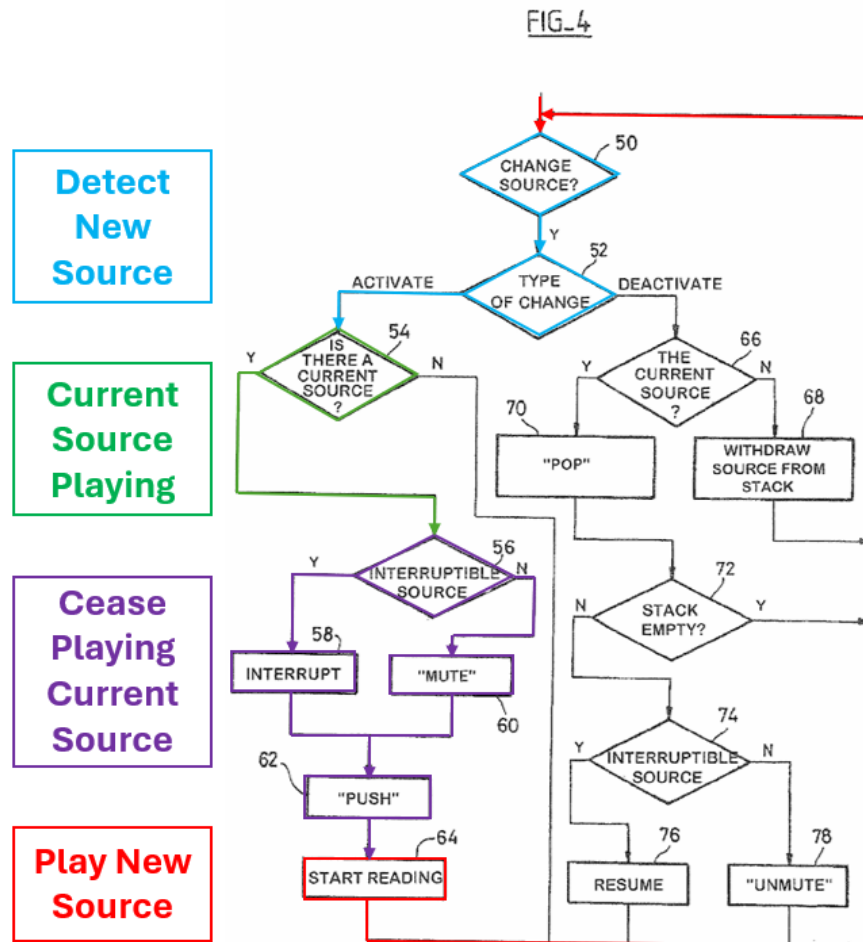
⁴ The '023 Patent uses the phrase “media content” instead.

audio/video system.” Barbe, [0001]. Barbe notes that “[m]odern multimedia systems may be connected to a very large number of external signal sources” and provides a method of “managing conflict between a plurality of concurrent sources that are active simultaneously.” Barbe, [0002], [0005]; *see also* EX1003, ¶¶48-49. Specifically, Barbe observes that when a user activates a new source, that implies the user intends for that source to take priority over other sources and Barbe therefore gives the highest priority to “any source that is beginning to send data ..., with this implicitly being representative of an intention of the user who has switched on an appliance.” Barbe, [0016]-[0018]; *see also* EX1003, ¶49. Barbe’s method will interrupt or mute any other active sources so that the device can begin playing audio from the newly activated source. Barbe, [0018]; *see also* EX1003, ¶49.

The method of this automatic switching is summarized in Fig. 4 of Barbe, which is “a general flow chart explaining how the method of the invention is implemented.” Barbe, [0029].

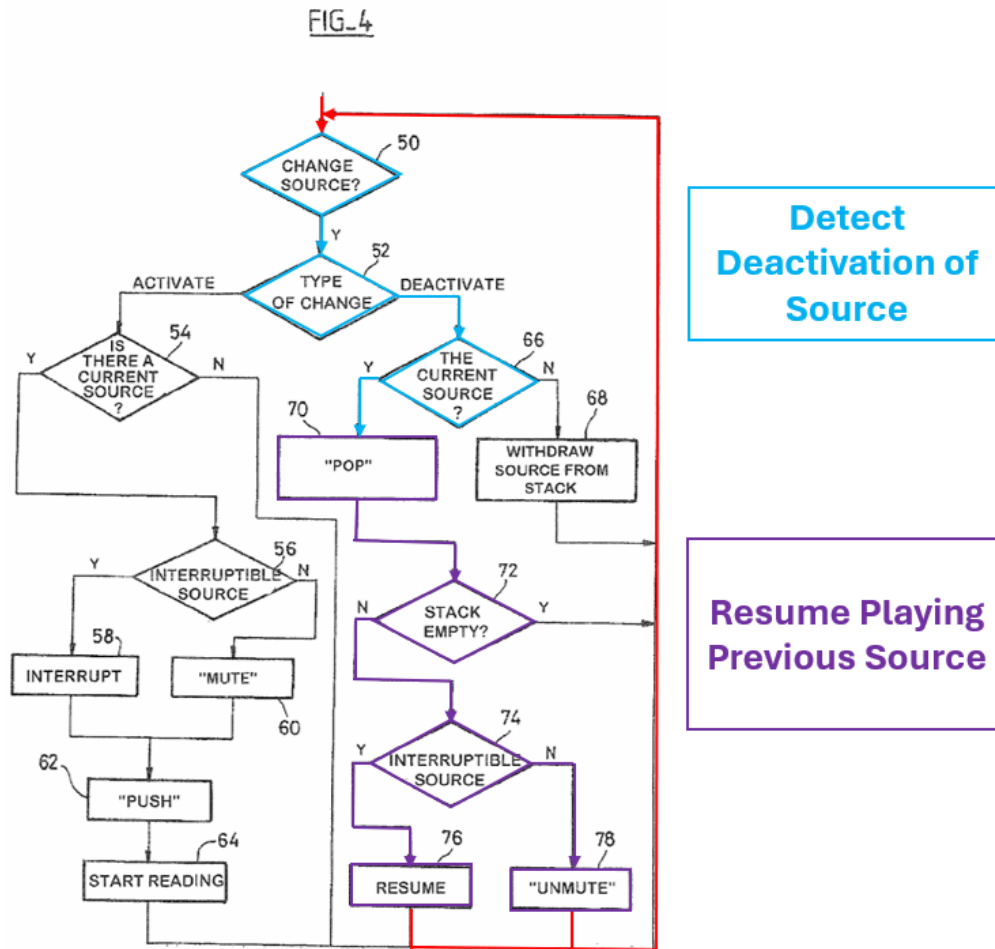
One particularly relevant scenario is the situation where a current source is being played (annotated in green) and a new source is activated (annotated in blue). *See* EX1003, ¶¶50-51. Barbe’s method will override the current source with the newly activated source by pausing or muting the current source (annotated in purple) and beginning to play the newly activated source (annotated in red). *See* EX1003,

¶51. Identity information of the overridden source is stored in a “last-in first-out” (LIFO) stack to resume the overridden source if necessary. *See* EX1003, ¶51.



Barbe, Fig. 4 (annotated); *see also* EX1003, ¶51.

Similarly, as shown in the annotated Fig. 4 below, when a currently playing source is deactivated (annotated in blue), Barbe will then check the LIFO stack to fetch identity information of a previously overridden source to resume or unmute (annotated in purple).

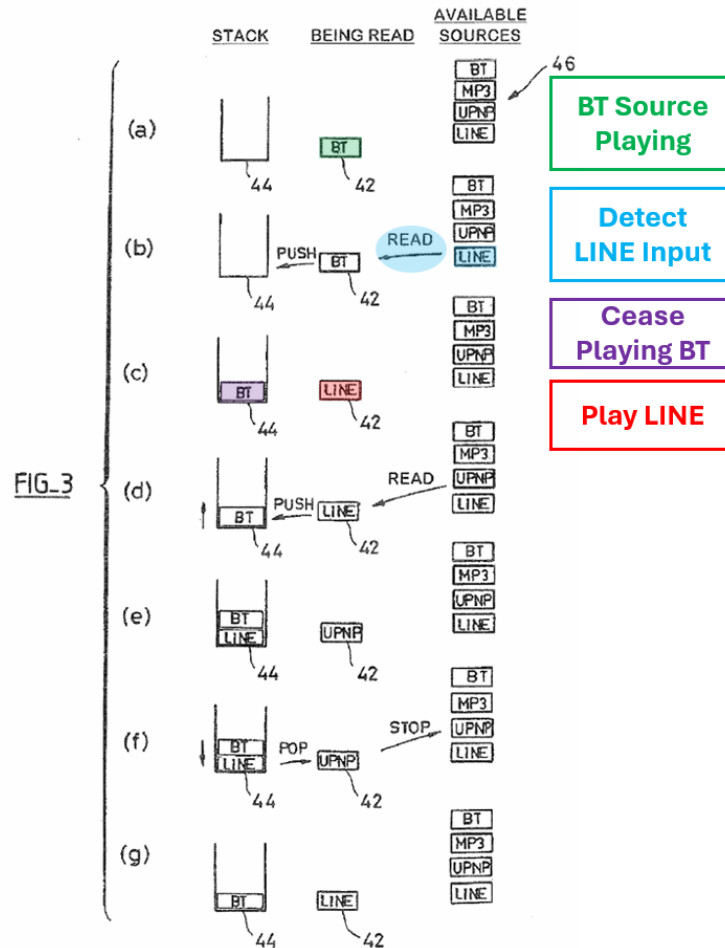


Barbe, Fig. 4 (annotated); EX1003, ¶52.

Barbe further provides an example of its method in Fig. 3 (reproduced below with annotations). There, Barbe's system has several different sources, including a Bluetooth source (BT) and a "line" source (LINE). Initially, the Bluetooth source is being played. Barbe, [0051]. Then the "line" source is activated, and the Bluetooth source is paused as a result. Barbe, [0052]. The "line" source is then being played. Barbe, [0052]-[0053]. When a current source, for example the "line" source, is being played, the source at the bottom of the LIFO stack, in this case the Bluetooth source,

“remain[s] on standby and ready to be reactivated when the ‘line’ source is stopped.”

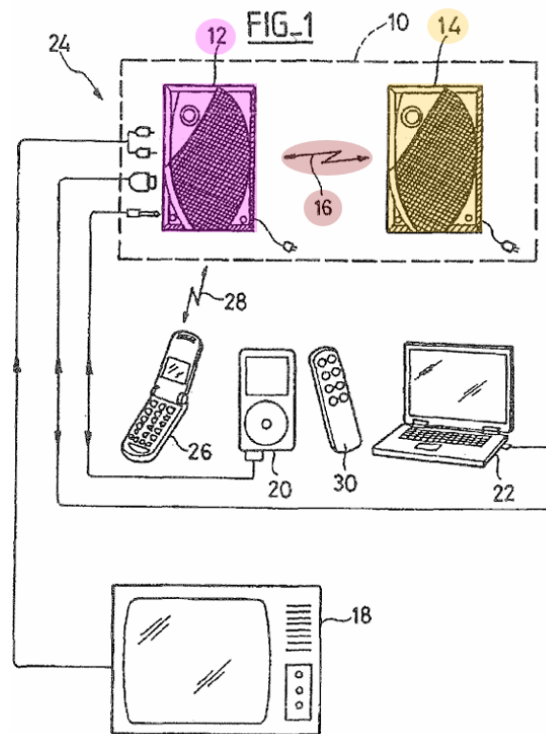
Barbe, [0058].



Barbe, Fig. 3 (annotated); *see also* EX1003, ¶53, 84.

Barbe discloses that the automatic source management method can be implemented on “an audio reproduction system 10 having two loudspeakers units 12 and 14 connected together by a wireless connection 16.” Barbe, [0031], Fig. 1 (reproduced below with annotations). A source concentrator can be provided to one or both of loudspeakers units 12 and 14 for connecting with various audio sources,

such as the Bluetooth source and “line” source discussed above. Barbe, [0038]. In particular, a telephone and MP3 player 26 is connected to loudspeakers unit(s) 12/14 wirelessly via a Bluetooth link 28, and various “line” sources such as a TV 18 is connected to loudspeakers unit(s) 12/14 through a “line” input. Barbe, [0046].



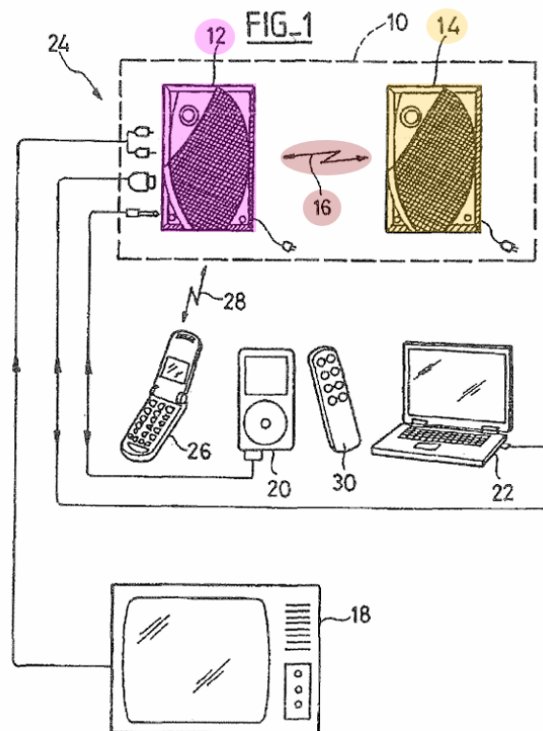
Barbe, Fig. 1 (annotated); *see also* EX1003, ¶¶54-56.

B. Independent Claim 1

1. [1.P] A playback device comprising:

Barbe discloses at least two playback devices: loudspeaker units 12 and 14, both connecting to a wireless network 16 and having built-in speaker(s) for producing sound. *See* Barbe, [0031] (“system 10 is an audio stream reproduction system having two loudspeaker units 12 and 14 connected together by a wireless

connection 16.”), EX1003, ¶¶62-63. Fig. 1 of Barbe, reproduced below with annotations, depicts each loudspeaker as a standalone device with its own power cord and built-in speaker(s), and communicating through a wireless network 16 (annotated in dark red), making them both *playback devices*. EX1003, ¶¶62-63.



Barbe, Fig. 1 (annotated), EX1003, ¶63.

2. [1.1] one or more processors; and

Barbe’s *playback device* contains a source concentrator for connecting to various wired connectors and to a Bluetooth module for communicating with appliances wirelessly. See Barbe, [0038], Fig. 2. The source concentrator “includes means for detecting the arrival of an audio stream on any of its input.” Barbe, [0040].

The functions of the source concentrator “are advantageously implemented in software by a digital processor, e.g. such as the P5+ chip from the supplier Parrot S.A.” Barbe, [0042]. Accordingly, the source concentrator constitutes *one or more processors*. See EX1003, ¶¶64-65.

3. [1.2] tangible, non-transitory computer readable memory comprising instructions stored therein, wherein the instructions, when executed, cause the playback device to perform a method comprising:

As discussed above in limitation [1.1], Barbe discloses a digital processor-based source concentrator the “functions [of which] are advantageously implemented in software,” requiring a memory to store the software for execution by the digital processor. See Barbe, [0042]; *see also* EX1003, ¶¶66-67.

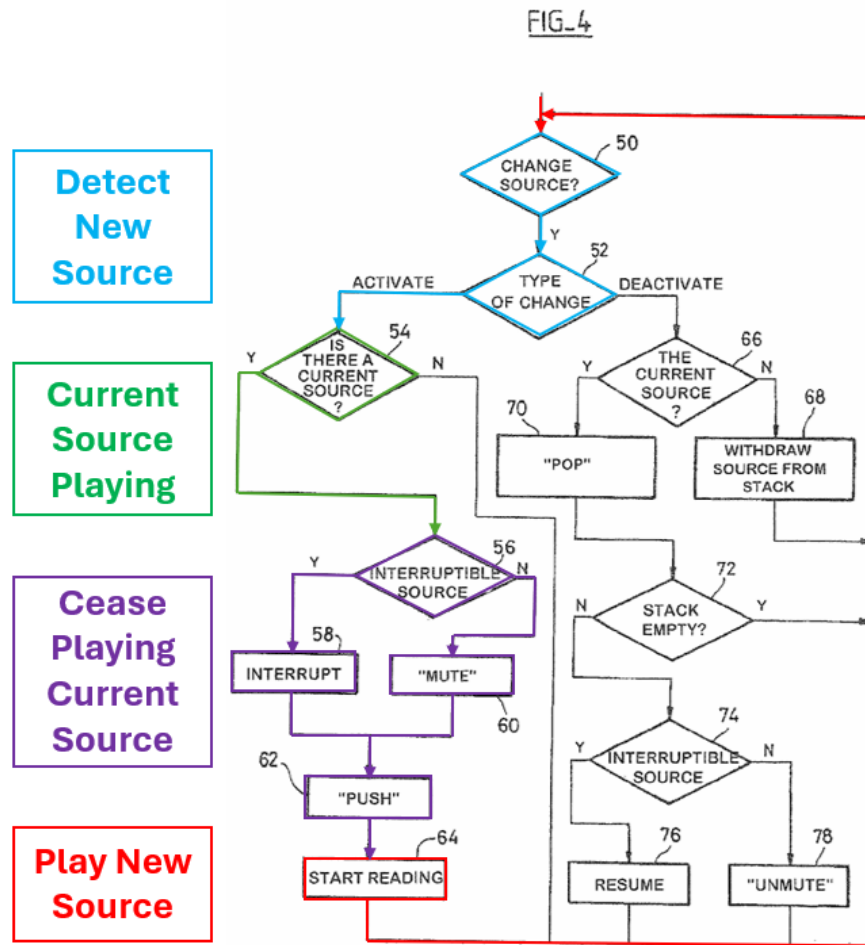
4. [1.3] arming the playback device so that receipt of a first type of media content preempts playback of a second type of media content;

Barbe discloses *arming the playback device* (playback device is capable of performing automatic switching of audio sources) *so that receipt of a first type of media content* (a newly activated source) *preempts* (overrides or automatically switches) *playback of a second type of media content* (a currently playing source). See EX1003, ¶¶68-76.

The '023 Patent describes that a playback device “is now armed (or rearmed)” after signals are no longer detected on its line-in connector such that the playback

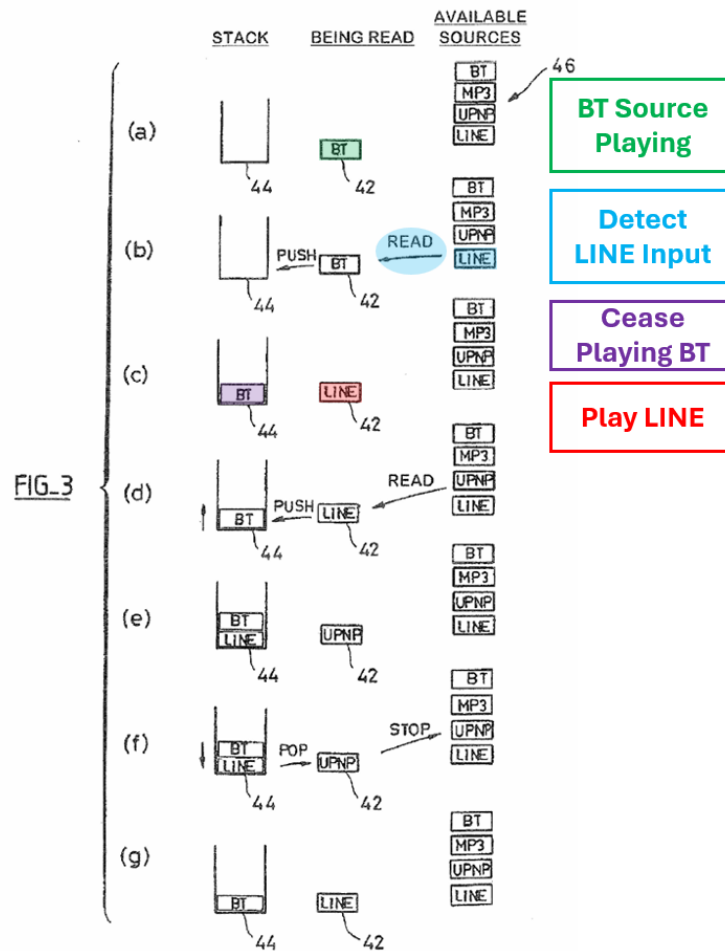
device is ready to once again automatically switch playback to the line-in source when the playback device once again detects a signal on the line-in connector. *See* '023 Patent, 7:4-12; *see also* EX1003, ¶69.

Barbe discloses the same “arming” of the disclosed playback device such that the “armed” playback device is capable of performing automatic switching of audio sources. *See* EX1003, ¶¶69-70. For example, Fig. 4 of Barbe (reproduced below with annotations) shows a method of “managing automatic selection of various sources” (Barbe, [0060]) in which receipt of signals from a newly activated source (annotated in blue) will override or automatically switch playback of a currently playing source (annotated green) by pausing (interrupting) or muting the currently playing source (annotated in purple) and beginning playing the newly activated source (annotated in red). *See* Barbe, [0018], [0060]-[0063], EX1003, ¶¶70-73.



Barbe, Fig. 4 (annotated); EX1003, ¶71-73.

Fig. 3 of Barbe (reproduced below with annotations) shows a scenario of the method where a Bluetooth source (BT) currently being played (step (a)) is paused when activation of a “line” source is detected (step (b)). See Barbe, [0051]-[0052], Fig. 3, EX1003, ¶74. Thereafter, “the audio stream that is being reproduced [is] the stream delivered by the ‘line’ input,” thereby automatically switching the playback from the Bluetooth source to the “line” source. Barbe, [0053], Fig. 3 (step (c)).



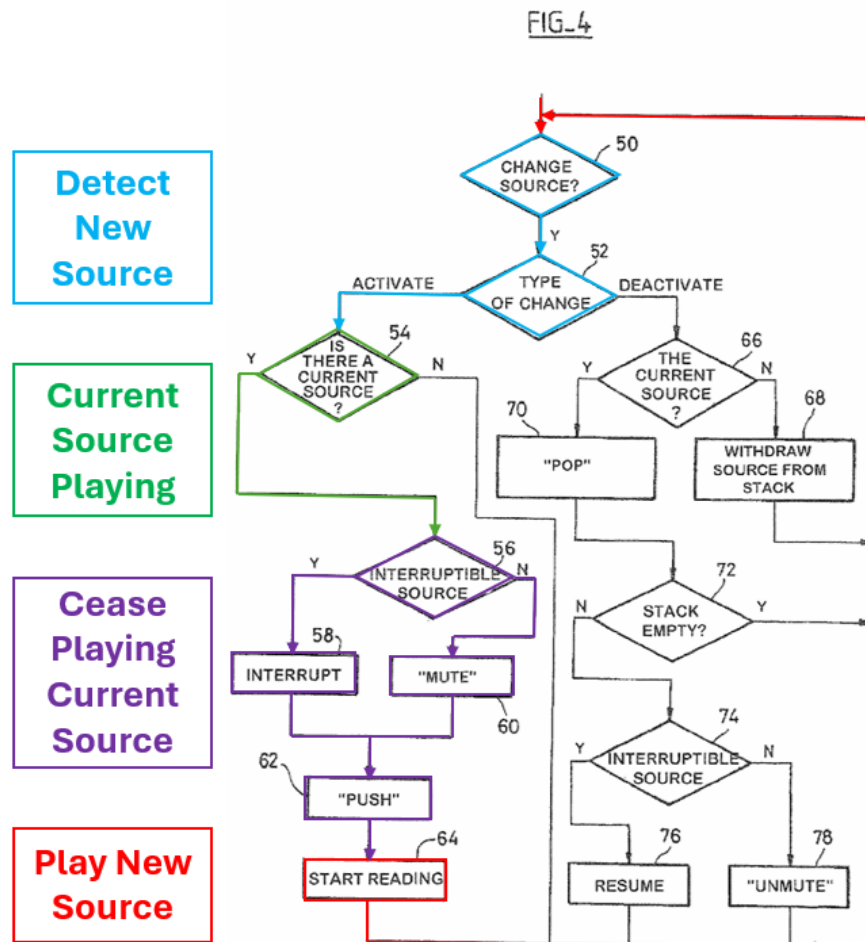
Barbe, Fig. 3 (annotated); *see also* EX1003, ¶74.

In this scenario, the “line” source provides the first type of media content and the Bluetooth source provides the second type of media content. *See* Barbe, [0050] (describing the four sources shown in Fig. 3 “are of different types.”), EX1003, ¶75.

5. [1.4] after arming the playback device, playing the second type of media content;

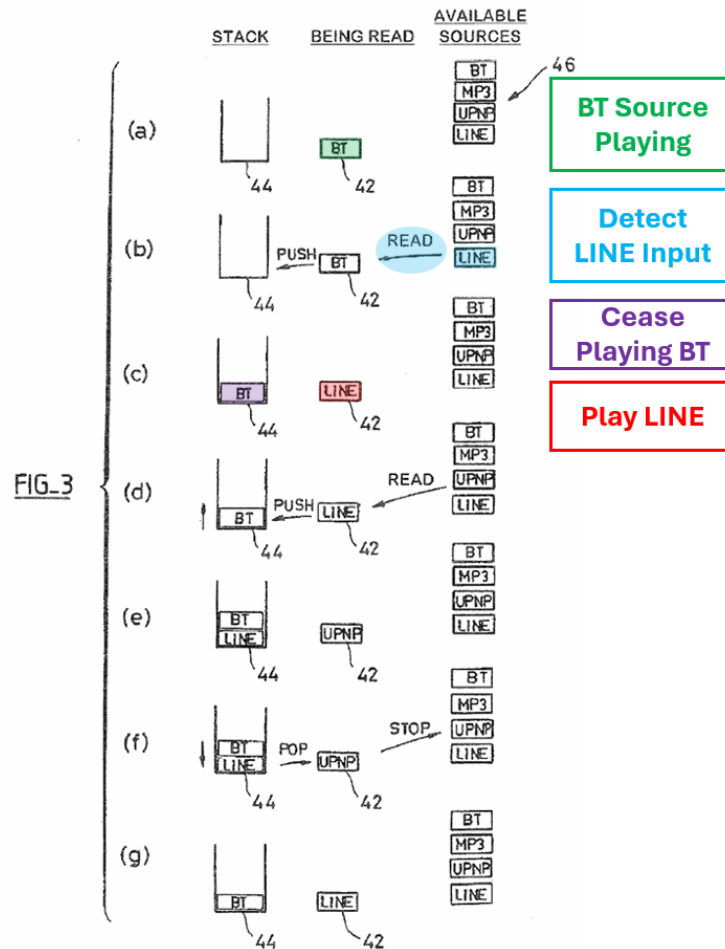
Barbe discloses *after arming the playback device, playing the second type of media content* (playing the current source). *See* EX1003, ¶¶77-79.

As shown in Fig. 4, Barbe describes a situation where the playback device is playing a current source (the portion annotated in green below including step 54 and the Y branch) while the playback device has already been armed, such that it is capable of performing automatic switching of audio sources (as shown in the portions annotated in purple and red following the green portion)., *See also* Barbe, [0060], [0062]-[0064], EX1003, ¶78.



Barbe, Fig. 4 (annotated); *see also* EX1003, ¶78.

Fig. 3 of Barbe similarly describes an example where a Bluetooth source (providing the second type of media content) is being played (annotated in green below) while the playback device has already been armed, such that when a “line” source is detected (annotated in blue), the Bluetooth source is automatically overridden (annotated in purple and red) by the “line” source (providing the first type of media content). *See* Barbe, [0051]-[0053], Fig. 3; EX1003, ¶79.



Barbe, Fig. 3 (annotated); *see also* EX1003, ¶79.

6. [1.5] while playing the second type of media content, determining that the playback device is receiving the first type of media content via a line-in connector;

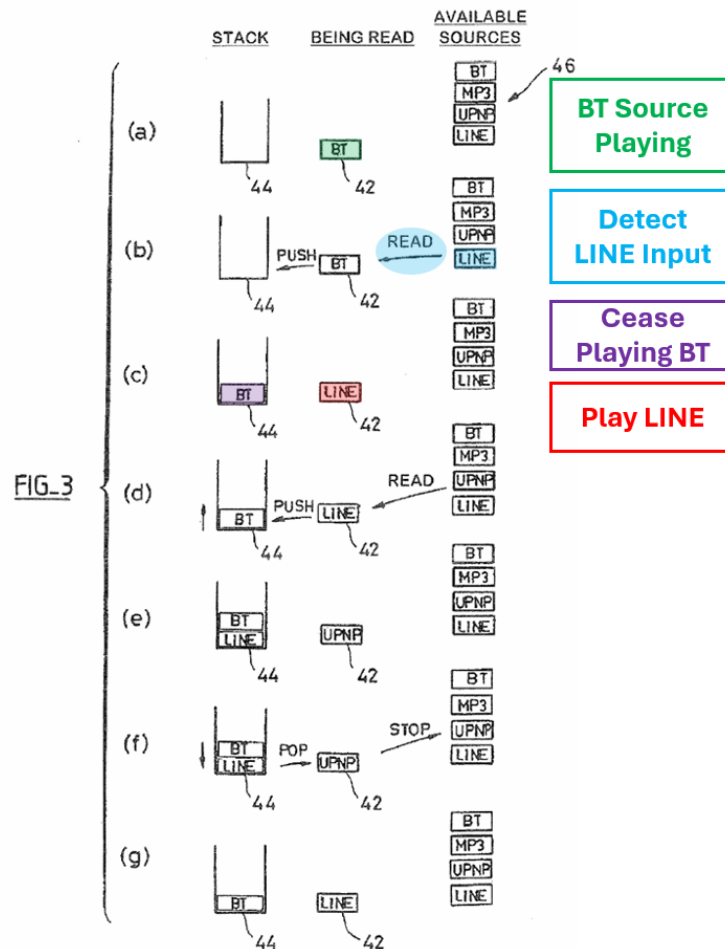
Barbe discloses *while playing the second type of media content* (the current source), *determining that the playback device is receiving the first type of media content* (a newly activated source) *via a line-in connector* (“line” input). See EX1003, ¶¶80-85.

Barbe discloses a “line” input connecting analog sources “such as a TV, a turntable, a CD or DVD player, etc.” to a playback device (Barbe, [0046], Fig. 1), in the same way as the ’023 Patent describes the claimed “line-in connector” coupling CD and DVD players to a playback device. See ’023 Patent, 6:25-29, 6:38-40. Therefore, the “line” input is a line-in connector. EX1003, ¶82.

Barbe discloses detecting activation of a new audio source (providing the *first type of media content*) connected to the “line” input and reception of new audio stream from the “line” input by a concentrator, which “includes means for detecting the arrival of an audio stream on any of its inputs.” Barbe, [0040], [0052]-[0053], Fig. 2; EX1003, ¶¶81-83. This detection and determination of the arrival of the new audio stream is performed while a Bluetooth source (providing the *second type of media content*) is currently being played. Barbe, [0051]; see also EX1003, ¶84.

Specifically, Fig. 3 of Barbe shows that in an initial step (a), “the Bluetooth source is being read” (Barbe [0051]), and then “[i]n step (b), the concentrator detects

that the source on the ‘line’ input has been activated” and the arrival of the new audio stream from the “line” input, while playing the Bluetooth source. Barbe, [0052], EX1003, ¶84. This detection step is annotated below in blue.



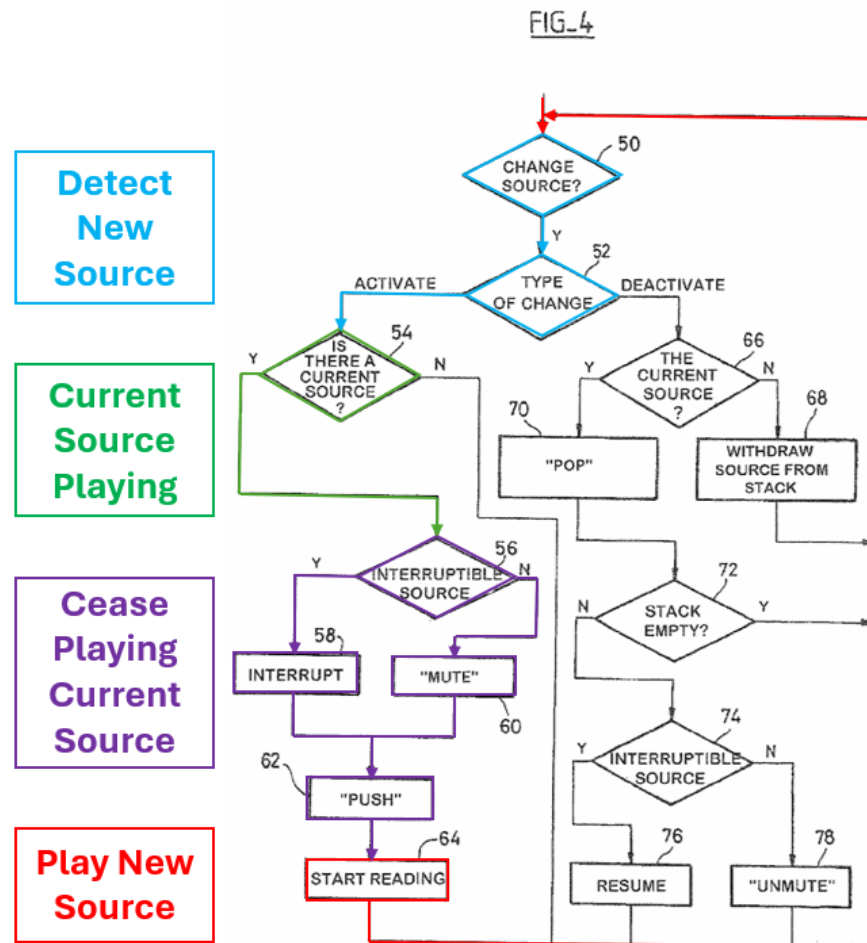
Barbe, Fig. 3 (annotated), EX1003, ¶84.

7. [1.6] in response to determining that playback device is receiving the first type of media content, ceasing playback of the second type of media content and playing the first type of media content;

Barbe describes *in response to determining that playback device is receiving the first type of media content (a newly activated source), ceasing playback of the*

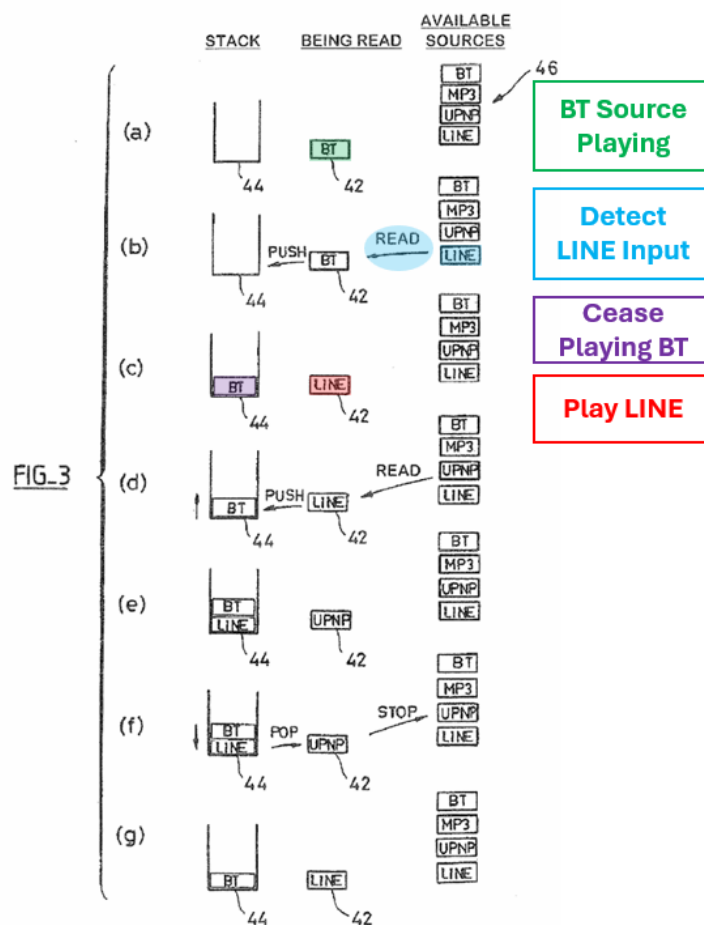
second type of media content (pausing or muting current source) and *playing the first type of media content* (playing the newly activated source). See EX1003, ¶¶86-89.

Barbe discloses that, in response to detecting the activation of a new source and arrival of a new audio stream from the new source, the current source is interrupted or muted (steps 56, 58, 60, and 62 of Fig. 4, annotated in purple below) and the newly activated source is played (step 64 of Fig. 4, annotated in red). See Barbe, [0040], [0052]-[0053], [0062], [0063]; see also EX1003, ¶87.



Barbe, Fig. 4 (annotated); EX1003, ¶87.

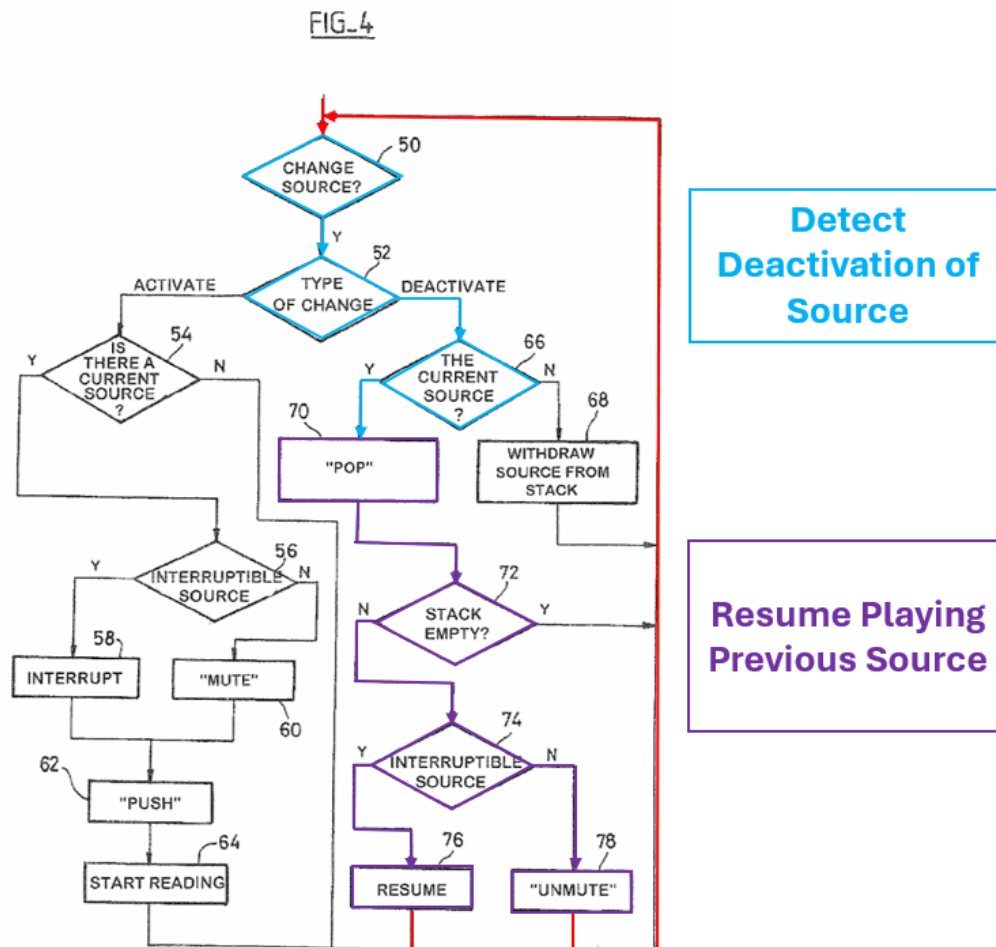
Barbe provides an exemplary scenario in Fig. 3 where, in response to the determination of the arrival of a new audio stream from the newly activated “line” source, the currently playing Bluetooth source is paused in step (b) (Barbe, [0052]), and “the stream delivered by the ‘line’ input” is being reproduced in step (c) (Barbe, [0053]); *see also* EX1003, ¶88.



Barbe, Fig. 3 (annotated); *see also* EX1003, ¶¶88-89.

8. [1.7] determining that the playback device is no longer receiving the first type of media content; and

Barbe discloses *determining that the playback device is no longer receiving the first type of media content* (“line” source, being the current source, stops or is deactivated). Barbe describes detecting the deactivation of the source that is currently being read in steps 50, 52, and 66 (Y branch) of Fig. 4. *See* Barbe, [0065]-[0067]; *see also* EX1003, ¶¶90-95.



Barbe, Fig. 4 (annotated), EX1003, ¶91.

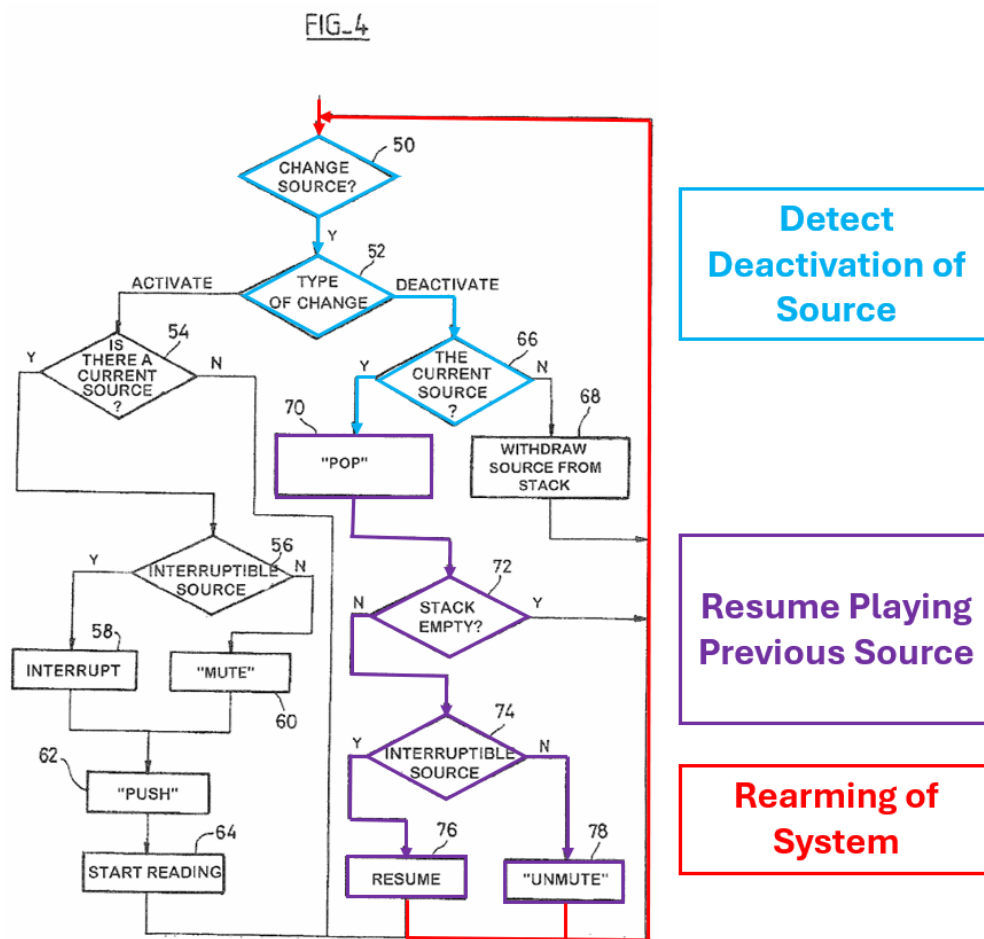
Barbe also discloses a situation where the “line” source is the current source, “with the Bluetooth source remaining on standby and ready to be reactivated when the “line” source is stopped.”. *See* Barbe, [0058], Fig. 3 (step (g)). The stopping of the “line” source, *i.e.*, when Barbe’s playback device can no longer receive audio stream from the “line” source (*the first type of media content*), can be detected according to steps 50, 52, and 66 (Y branch) of Fig. 4, as discussed above. EX1003, ¶¶92-95.

9. **[1.8] in response to determining that the playback device is no longer receiving the first type of media content, ceasing playback of the first type of media content and rearming the playback device so that subsequent receipt of the first type of media content preempts playback of the second type of media content.**

Barbe discloses *in response to determining that the playback device is no longer receiving the first type of media content* (“line” source stops or is deactivated), *ceasing playback of the first type of media content* (stop playing “line” source) and *rearming the playback device so that subsequent receipt of the first type of media content preempts playback of the second type of media content* (subsequent activation of “line” source will override then current source). *See* EX1003, ¶¶96-102.

In response to detecting the deactivation of the current source, Barbe’s method either resumes or unmutes the previously overridden source in steps 70, 72, 74, 76, and 78 of Fig. 4, thereby ceasing playback of the deactivated source (*the first type*

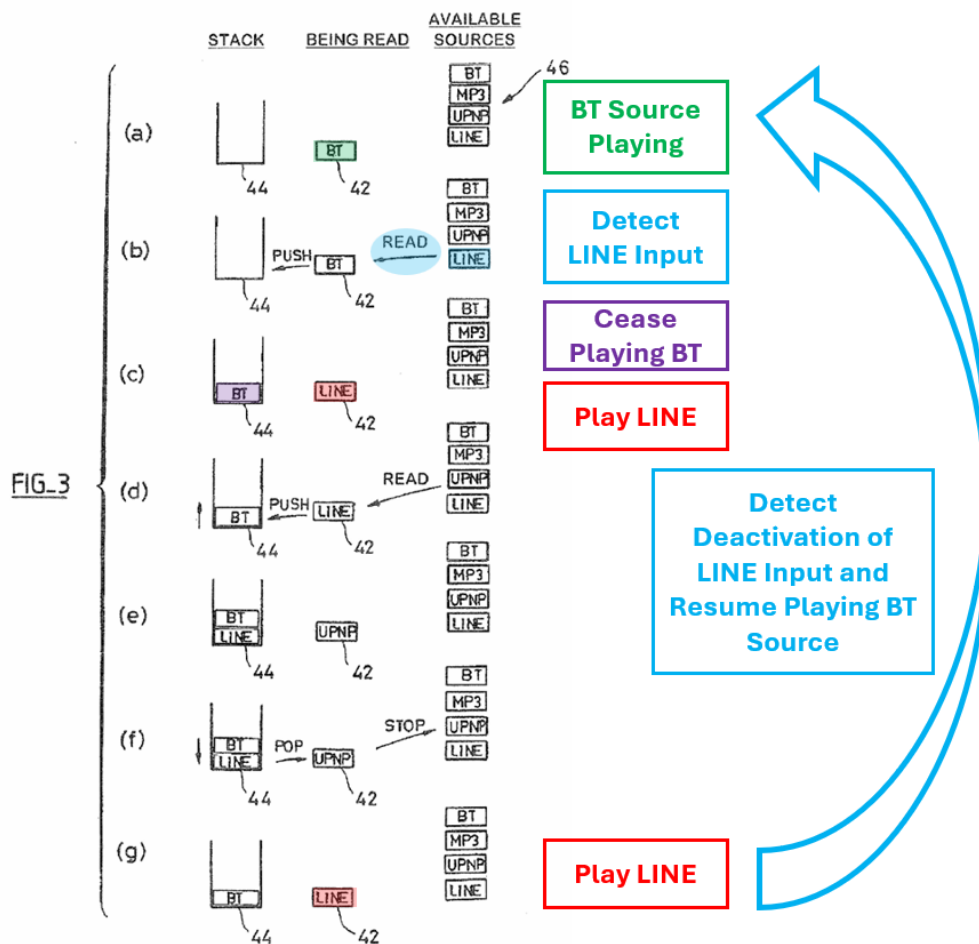
of media content). See Barbe, [0067]-[0069], EX1003, ¶97. Furthermore, as shown via the red annotations below, after ceasing playback of the deactivated source, the playback device will circle back to step 50 and again be ready to override any current source when a newly activated source is detected, thereby rearming the playback device. EX1003, ¶97, 101.



Barbe, Fig. 4 (annotated), EX1003, ¶101.

Barbe provides an example where the “line” source is the current source in step (g) of Fig. 3, “with the Bluetooth source remaining on standby and ready to be

reactivated when the ‘line’ source is stopped.” Barbe, [0058]; EX1003, ¶¶98-99. Therefore, when the “line” source indeed stops, the Bluetooth source will be reactivated and become the currently playing source after playback of the “line” source ceases. EX1003, ¶¶98-99, 102. This will circle the process in Fig. 3 from step (g) back to step (a). EX1003, ¶¶98-99, 102. Accordingly, steps (b) and (c) following step (a) show that subsequent activation of the “line” source will again override the Bluetooth source, thereby *rearming the playback device*.



Barbe, Fig. 3 (modified), EX1003, ¶¶99, 102.

C. Dependent Claim 2: The playback device of claim 1, wherein playing the second type of media content comprises receiving the second type of media content via at least one of a wireless or a wired network interface.

Barbe discloses *receiving the second type of media content* (Bluetooth source) *via at least one of a wireless or a wired network interface* (Bluetooth interface). See EX1003, ¶¶103-107.

As discussed above, Barbe discloses that a currently playing Bluetooth source can be overridden by a “line” source such as a TV or a DVD player through a “line” input. Barbe, [0046], [0051]-[0053]; EX1003, ¶106. Therefore, audio content received from the Bluetooth source constitutes *the second type of media content*. EX1003, ¶106. Bluetooth, in particular Advanced Audio Distribution Profile (A2DP) disclosed by Barbe, is a wireless audio streaming profile that communicates information via a wireless network interface. See Barbe, [0035]; EX1003, ¶106, 114.

D. Dependent Claim 3: The playback device of claim 1, wherein playing the second type of media content comprises playing the second type of media content in synchrony with a second playback device.

Barbe discloses *playing the second type of media content in synchrony with a second playback device* (e.g., loudspeaker units 12 and 14 playing in synchrony). Barbe discloses a system with two playback devices (loudspeaker units 12 and 14) connected together by a wireless connection. See Barbe, [0031], EX1003, ¶¶108-111. Accordingly, a POSITA would understand that these two loudspeaker units

would play media content, including the second type of media content such as audio from a Bluetooth source, in synchrony to avoid echoes. *See* EX1003, ¶¶109-110.

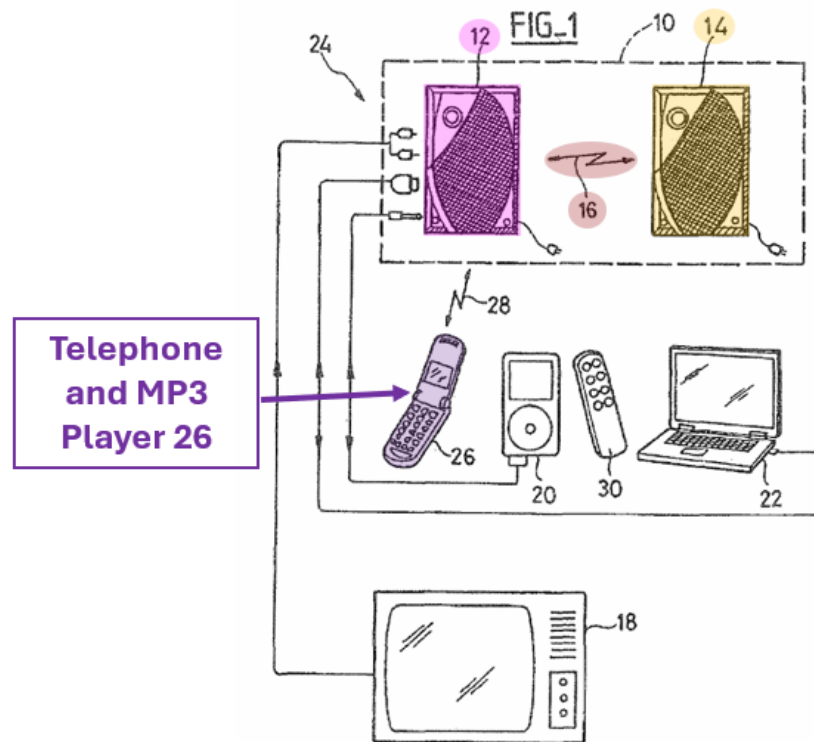
To the extent this limitation is not disclosed, a POSITA would find it obvious to play media content on both loudspeaker units 12 and 14 in synchrony to enhance listener enjoyment and avoid echoes. *See* EX1003, ¶111.

E. Dependent Claim 4: The playback device of claim 1, wherein playing the second type of media content comprises receiving the second type of media content from an Internet-accessible media source.

Barbe discloses *receiving the second type of media content from an Internet-accessible media source* (e.g., a telephone and MP3 player). *See* EX1003, ¶¶112-116.

Barbe discloses “a telephone and MP3 player given reference 26, that emits an audio stream 28 to the system 10 by using a Bluetooth advanced audio distribution profile (A2DP).” Barbe, [0035]; Fig. 1. As shown in Fig. 1 reproduced below, telephone and MP3 player 26 connects to at least loudspeaker unit 12 (a playback device as discussed above in claim 1) via a Bluetooth connection, thereby providing audio stream 28 as the *second type of media content* to playback device 12, as discussed above in claim 1. EX1003, ¶¶113-114. A POSITA would understand that devices like telephone and MP3 player 26 could access Internet by Wi-Fi and/or cellular telecommunication networks in and around 2011. *See, e.g.,* EX1008

(discussing 2007 iPhone's Wi-Fi capabilities), EX1009 (discussing 2007 iPod's Wi-Fi capabilities); *see also* Barbe, [0045] (referencing iPod as an MP3 player), EX1003, ¶114. Telephone and MP3 player 26 therefore constitutes *an Internet-accessible media source*. EX1003, ¶114.



Barbe, Fig. 1 (annotated); *see also* EX1003, ¶114.

To the extent this limitation is not disclosed, a POSITA would find it obvious to modify Barbe's device to receive the second type of media content via the same Bluetooth connection from an Internet-accessible media source in order to provide users with the expansive media library that the Internet offers. *See* EX1008, 2

(discussing availability of media on iTunes store), EX1009, 1 (touting ability to watch “over 10 million free videos” from YouTube); see also EX1003, ¶116.

F. Dependent Claim 5: The playback device of claim 1, wherein playing the second type of media content comprises transmitting at least a portion of the second type of media content to a third playback device.

Barbe discloses *transmitting at least a portion of the second type of media content to a third playback device* (e.g., loudspeaker 14). See EX1003, ¶¶117-121.

While claim 5 calls for “a third playback device,” there is no mention of a second playback device in claim 5 or its base claim 1. See EX1003, ¶118.

To the extent that the *third playback device* merely requires a playback device other than the claimed *playback device*, Barbe discloses two loudspeakers 12 and 14, each of which is a playback device. Barbe, [0031], EX1003, ¶119. These loudspeakers are connected together by a wireless connection 16 which allows, for example, loudspeaker 12 to transmit audio signals, including the *second type of media content*, to loudspeaker 14. Barbe, [0031], Fig. 1; EX1003, ¶119.

To the extent the claim requires a total of three playback devices, Barbe discloses using its method and apparatus with a home cinema system, which can contain three or more speakers playing audio content at the same time using the same wireless connection 16 to transmit audio signals, including the *second type of media content*. Barbe, [0030], EX1003, ¶120.

To the extent this limitation is not disclosed, a POSITA would find it obvious to configure loudspeaker 12 to send audio signals to more than one loudspeakers in the same way audio signals are sent to loudspeaker 14 to form a surround-sound home cinema system to enhance listener enjoyment. *See* EX1003, ¶121.

G. Dependent Claim 6: The playback device of claim 1, wherein playing the first type of media content comprises transmitting at least a portion of the first type of media content to at least one of a second playback device or a third playback device.

Barbe discloses a playback device *transmitting at least a portion of the first type of media content to at least one of a second playback device or a third playback device* (e.g., loudspeaker 14). *See* EX1003, ¶¶122-125.

As discussed above, Barbe discloses two loudspeakers 12 and 14, each of which is a playback device. Barbe, [0031], EX1003, ¶123. These loudspeakers are connected together by a wireless connection 16 which allows, for example, loudspeaker 12 to transmit audio signals, including the *first type of media content*, to loudspeaker 14. Barbe, [0031], EX1003, ¶123.

To the extent the claim requires a total of three playback devices, Barbe discloses using its method and apparatus with a home cinema system, which can contain three or more speakers playing audio content at the same time using the same wireless connection 16 to transmit audio signals, including the *first type of media content*. Barbe, [0030], EX1003, ¶124.

To the extent this limitation is not disclosed, a POSITA would find it obvious to configure loudspeaker 12 to send audio signals to more than one loudspeakers in the same way audio signals are sent to loudspeaker 14 to form a surround-sound home cinema system to enhance listener enjoyment. *See* EX1003, ¶125.

H. Dependent Claim 7: The playback device of claim 1, wherein the first type of media content comprises media content received from a video device.

Barbe discloses *wherein the first type of media content comprises media content received from a video device* (e.g., a TV, a DVD player). As discussed above, Barbe discloses video devices including a TV and a DVD player connected to the “line” input (a line-in connector) to provide *the first type of media content*. *See* Barbe, [0046]; EX1003, ¶126.

I. Independent Claim 8

The limitations of claim 8 are substantially identical to the limitations of claim 1. Accordingly, Barbe discloses, teaches, or suggests the device of claim 8 for the same reasons as explained for the corresponding limitations in column 1, as outlined in the chart below. To the extent the precise language of the two claims differ, such differences are insubstantial and do not alter the analysis above. *See* EX1003, ¶¶127-129.

<u>Claim 1</u>	<u>Claim 8</u>
[1.2] tangible, non-transitory computer readable memory comprising instructions stored therein, wherein the instructions, when executed, cause the playback device to perform a method comprising:	[8.P] Tangible, non-transitory computer-readable media comprising instructions encoded therein, wherein the instructions, when executed by a playback device, cause the playback device to perform functions comprising:
[1.3] arming the playback device so that receipt of a first type of media content preempts playback of a second type of media content;	[8.1] arming the playback device so that receipt of a first type of media content preempts playback of a second type of media content;
[1.4] after arming the playback device, playing the second type of media content;	[8.2] after arming the playback device, playing the second type of media content;
[1.5] while playing the second type of media content, determining that the playback device is receiving the first type of media content via a line-in connector;	[8.3] while playing the second type of media content, determining that the playback device is receiving the first type of media content via a line-in connector;
[1.6] in response to determining that playback device is receiving the first type of media content, ceasing playback of the second type of media content and playing the first type of media content;	[8.4] in response to determining that playback device is receiving the first type of media content, ceasing playback of the second type of media content and playing the first type of media content;
[1.7] determining that the playback device is no longer receiving the first type of media content; and	[8.5] determining that the playback device is no longer receiving the first type of media content; and
[1.8] in response to determining that the playback device is no longer receiving the first type of media content, ceasing playback of the first type of media content and rearming the playback device so that subsequent receipt of the first type of media content preempts playback of the second type of media content.	[8.6] in response to determining that the playback device is no longer receiving the first type of media content, ceasing playback of the first type of media content and rearming the playback device so that subsequent receipt of the first type of media content preempts playback of the second type of media content.

- J. Dependent Claim 9: The tangible, non-transitory computer-readable media of claim 8, wherein playing the second type of media content comprises receiving the second type of media content via at least one of a wireless or a wired network interface.**

This claim is substantively identical to claim 2. Accordingly, Barbe discloses, teaches, or suggests this claim for the same reasons discussed above. *See* EX1003, ¶130.

- K. Dependent Claim 10: The tangible, non-transitory computer-readable media of claim 8, wherein playing the second type of media content comprises receiving the second type of media content from an Internet-accessible media source.**

This claim is substantively identical to claim 4. Accordingly, Barbe discloses, teaches, or suggests this claim for the same reasons discussed above. *See* EX1003, ¶131.

- L. Dependent Claim 11: The tangible, non-transitory computer-readable media of claim 8, wherein playing the second type of media content comprises transmitting at least a portion of the second type of media content to a third playback device.**

This claim is substantively identical to claim 5. Accordingly, Barbe discloses, teaches, or suggests this claim for the same reasons discussed above. *See* EX1003, ¶132.

- M. Dependent Claim 12: The tangible, non-transitory computer-readable media of claim 8, wherein playing the first type of media content comprises transmitting at least a portion of the first type of media content to at least one of a second playback device or a third playback device.**

This claim is substantively identical to claim 6. Accordingly, Barbe discloses,

teaches, or suggests this claim for the same reasons discussed above. *See* EX1003, ¶133.

N. Dependent Claim 13: The tangible, non-transitory computer-readable media of claim 8, playback device of claim 1, wherein the first type of media content comprises media content received from a video device.

This claim is substantively identical to claim 7. Accordingly, Barbe discloses, teaches, or suggests this claim for the same reasons discussed above. *See* EX1003, ¶134.

O. Independent Claim 14

The limitations of claim 14 are substantially identical to the limitations of claim 1. Accordingly, Barbe discloses, teaches, or suggests the method of claim 14 for the same reasons as explained for the corresponding limitations in column 1, as outlined in the chart below. To the extent the precise language of the two claims differ, such differences are insubstantial and do not alter the analysis above. *See* EX1003, ¶¶135-136.

<u>Claim 1</u>	<u>Claim 14</u>
[1.P] A playback device comprising:	[14.P] A method performed by a playback device, the method comprising:
[1.3] arming the playback device so that receipt of a first type of media content preempts playback of a second type of media content;	[14.1] arming the playback device so that receipt of a first type of media content preempts playback of a second type of media content;
[1.4] after arming the playback device, playing the second type of media content;	[14.2] after arming the playback device, playing the second type of media content;
[1.5] while playing the second type of media content, determining that the playback device is receiving the first type of media content via a line-in connector;	[14.3] while playing the second type of media content, determining that the playback device is receiving the first type of media content via a line-in connector;
[1.6] in response to determining that playback device is receiving the first type of media content, ceasing playback of the second type of media content and playing the first type of media content;	[14.4] in response to determining that playback device is receiving the first type of media content, ceasing playback of the second type of media content and playing the first type of media content;
[1.7] determining that the playback device is no longer receiving the first type of media content; and	[14.5] determining that the playback device is no longer receiving the first type of media content; and
[1.8] in response to determining that the playback device is no longer receiving the first type of media content, ceasing playback of the first type of media content and rearming the playback device so that subsequent receipt of the first type of media content preempts playback of the second type of media content.	[14.6] in response to determining that the playback device is no longer receiving the first type of media content, ceasing playback of the first type of media content and rearming the playback device so that subsequent receipt of the first type of media content preempts playback of the second type of media content.

- P. Dependent Claim 15: The method of claim 14, wherein playing the second type of media content comprises receiving the second type of media content via at least one of a wireless or a wired network interface.**

This claim is substantively identical to claim 2. Accordingly, Barbe discloses, teaches, or suggests this claim for the same reasons discussed above. *See* EX1003, ¶137.

- Q. Dependent Claim 16: The method of claim 14, wherein playing the second type of media content comprises playing the second type of media content in synchrony with a second playback device.**

This claim is substantively identical to claim 3. Accordingly, Barbe discloses, teaches, or suggests this claim for the same reasons discussed above. *See* EX1003, ¶138.

- R. Dependent Claim 17: The method of claim 14, wherein playing the second type of media content comprises receiving the second type of media content from an Internet-accessible media source.**

This claim is substantively identical to claim 4. Accordingly, Barbe discloses, teaches, or suggests this claim for the same reasons discussed above. *See* EX1003, ¶139.

VI. GROUND 3-4: RICHENSTEIN ANTICIPATES AND RENDERS OBVIOUS CLAIMS 1-17

A. Overview of Richenstein

Richenstein (EX1004) discloses a “wireless audio distribution system” and “provid[es] a plurality of selectable audio-video signals from one or more sources to

one or more listeners in an automobile, airplane, or building.” Richenstein, Abstract, [0002]. Generally, the audio-video signals (such as signals from an audio stage 36, MP3 Player 44, portable MP3 Player 45, new unit add in 54, legacy adaptor 52, or a signal input connector 1150) are received by a transmitting unit (such as audio device 34 or computer 1142). *See, e.g.*, Richenstein, Figs. 1, 26, 27; *see also* EX1003, ¶¶57-59. This transmitting unit encodes the various signals, along with control data, and transmits them to one or more receiving units (such as headset unit/headphones 14, or speakers 1144 and 1146). *See, e.g.*, Richenstein, Figs. 1, 26, 27; *see also* EX1003, ¶58. These receiving units decode the data and then use that data to produce sound. *See, e.g.*, Richenstein, Figs. 1, 26, 27; *see also* EX1003, ¶58.

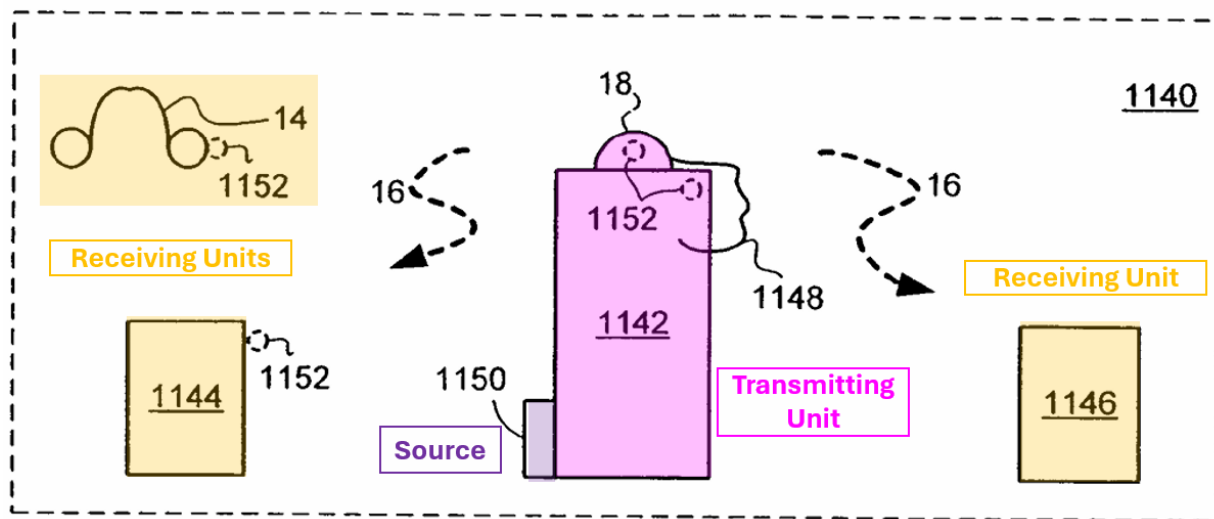


Fig. 26

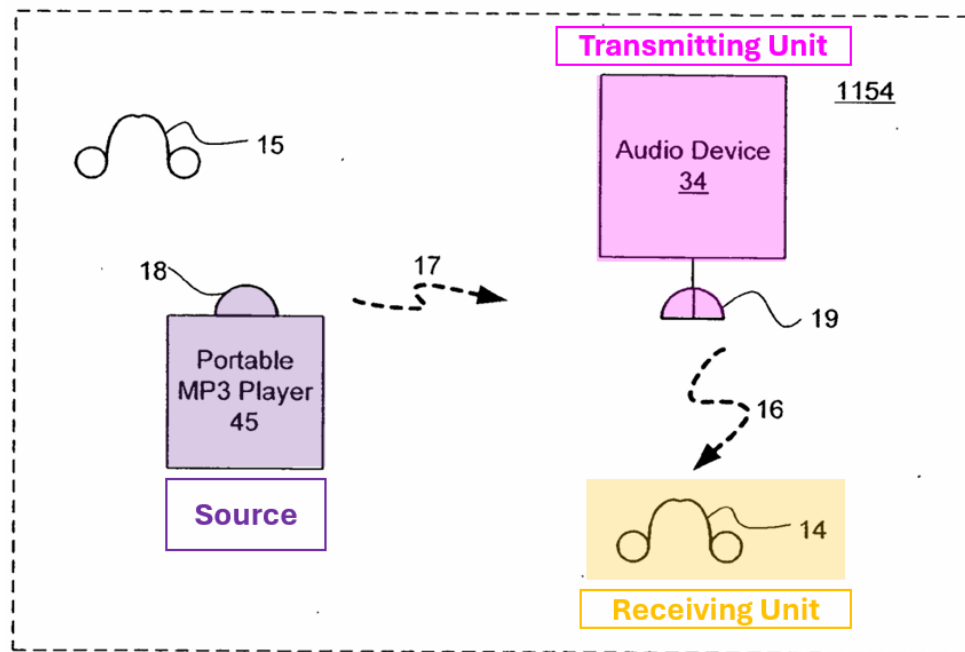


Fig. 27

Richenstein, Figs. 26-27 (annotated); *see also* EX1003, ¶58.

Richenstein's system is flexible, supporting a variety of speaker configurations and audio formats, ranging from an audio system with headsets (*see e.g.*, Fig. 1), to a pair of headphone speakers (*see* [0050]), to loudspeakers (*see* [0147]). *See also* EX1003, ¶59. Richenstein also discloses delivering audio in 5.1 and 7.1 formats, which are “used for home and professional theaters” and utilize at least six different speakers. Richenstein, [0049]; *see also* Richenstein, [0051], EX1003, ¶59.

Richenstein also discloses prioritizing specific audio channels, such as a front door monitor, a baby monitor, or a cell phone. Richenstein, [0048], [0147]; *see also*

EX1003, ¶60. For example, Richenstein’s system may be “configured to automatically override the listener’s selection of one of the stereo channels to select the baby monitor audio whenever the audio level in the baby monitor channel exceeds a preset level.” Richenstein, [0048]; *see also* EX1003, ¶60. If the audio on the baby monitor channel is no longer detected, Richenstein’s system can also “automatically return to the stereo channel earlier selected by the listener.” Richenstein, [0048]; *see also* Richenstein, [0147], EX1003, ¶60.

B. Independent Claim 1

1. [1.P] A playback device comprising:

Richenstein discloses two categories of *playback devices*: (1) those on the transmitting side that transmit audio data to another device, and (2) those on the receiving side that receive audio data from another device. *See* EX1003, ¶¶140-141.

For example, with reference to Fig. 27, Richenstein describes a bidirectional data communication system 1154, in which an audio device 34, equipped with a combined transmitter/receiver 19, receives audio data wirelessly (via a bitstream 17) from a portable MP3 player 45, and transmits audio data wirelessly (via a bitstream 16) to headphones 14 for decoding and sound producing. Audio Device 34 can also produce sound, either through a built-in speaker or an attached external speaker as it “represents any audio, video or data source including mono and stereo radios, CD and cassette players, mini-disc players, as well as the audio portions of electronic

devices that provide other types of signals such as computers, television sets, DVD players and the like.” Richenstein, [0039]; *see also* EX1003, ¶¶143-144.

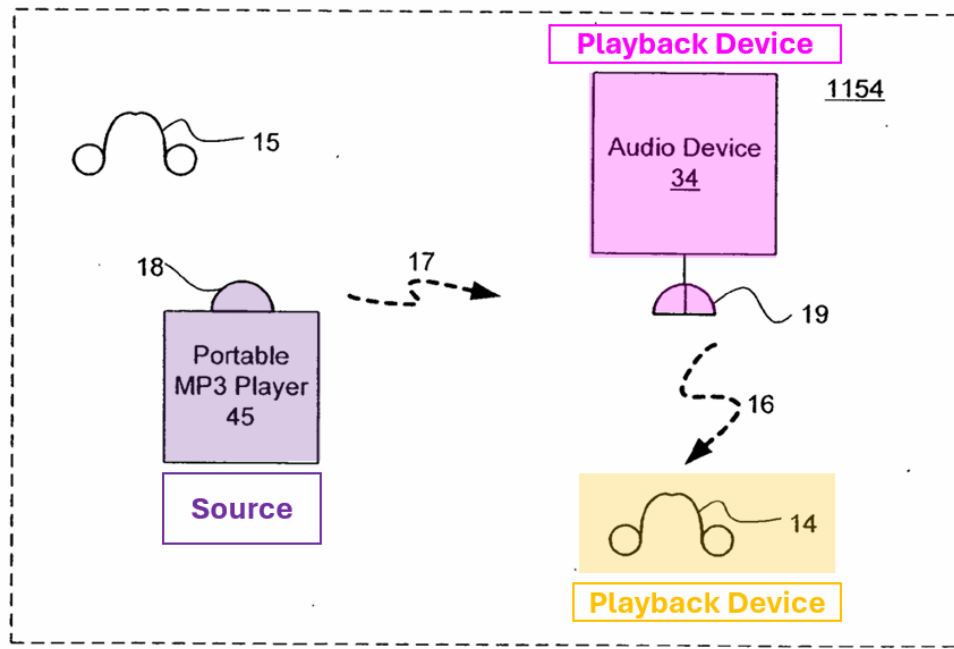


Fig. 27

Richenstein, Fig. 27 (annotated); *see also* EX1003, ¶144.

In addition to receiving audio data from portable MP3 player 45, audio device 34 can also receive signals from a variety of audio, video, or data sources and subsequently encode the signals and transmits the encoded data wirelessly to another device, such as headphones 14. *See* Richenstein, [0036]-[0039], Fig. 1 (referring headphones 14 as a headset receiver unit); *see also* EX1003, ¶¶140-141, 143-144. Accordingly, both audio device 34 and headphones 14 constitute playback devices. EX1003, ¶144.

Richenstein also discloses a communication system 1140, in which a computer 1142, equipped with a transmitter 18, transmits audio data wirelessly via an encoded digital bitstream 16 to headphones 14, or computer speakers such as speakers 1144 and 1146 for decoding and sound producing. *See* Richenstein, [0187]-[0188]; *see also* Richenstein, Fig. 26, EX1003, ¶142. Because audio device 34, discussed above, “represents . . . audio portions of electronic devices that provide other types of signals such as computers,” a POSITA would understand that the descriptions of audio device 34 apply to the audio portions of computer 1142. Richenstein, [0039]; *see also* EX1003, ¶¶142-144. With reference to Fig. 26, audio device 34 (the audio portions of computer 1142) can also produce sound, either through a built-in speaker of or an external speaker attached to computer 1142. *See* EX1003, ¶142-144. In this example, the (1) computer 1142 (or at least its audio portions—audio device 34), (2) headphones 14, (3) speakers 1144 and (4) 1146 all constitute playback devices. *See* EX1003, ¶142.

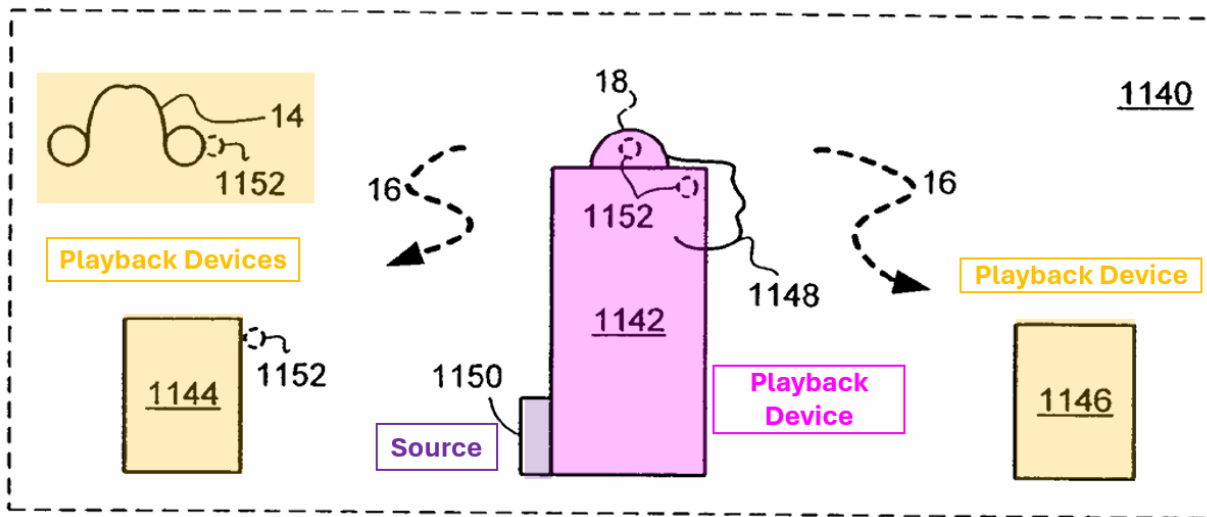


Fig. 26

Richenstein, Fig. 26 (annotated); *see also* EX1003, ¶142.

To the extent a built-in or an external speaker is not disclosed, a POSITA would find it obvious to include such a speaker in audio device 34 and/or computer 1142 to produce sound locally, thereby enhancing their usability. *See* EX1003, ¶145.

2. [1.1] one or more processors; and

Each of the aforementioned *playback devices* contain *one or more processors* for processing (e.g., encoding or decoding) audio data and/or controlling various functions of the playback device. EX1003, ¶¶146-150.

On the transmitting side, for example, Richenstein's audio device 34 (shown in both Figs. 1 and 27, and also applies the audio portions of computer 1142 in Fig. 26) contains a master controller 26, which includes a DSP encoder and controller 24. *See* Richenstein, [0038]-[0039], EX1003, ¶¶147-148. Both the (1) master controller

26 and (2) DSP encoder and controller 24 constitute *one or more processors*. See EX1003, ¶¶147-148.

In addition, to the extent computer 1142 uses resources other than its audio portions 34 to process audio data, a POSITA would understand that computer 1142 also contains one or more processors. See EX1003, ¶148. Furthermore, transmitter 18 connected to computer 1142 contains at least an encoder (a processor) used to “generate[] serially encoded digital bitstream 16 for simultaneous reception by speakers 1144, 1146 and headset 14.” Richenstein, [0188]; *see also* EX1003, ¶148. Therefore, computer 1142 equipped with transmitter 18 contains one or more processors. *See also* EX1003, ¶148.

On the receiving side, headphones 14 (shown in Figs. 1, 26, and 27) includes a decoder 74 that “contain[s] a clock, de-multiplexer, and controller, for processing to provide separate digital signals for stereo channels 1-4.” Richenstein, [0045]; *see also* Richenstein, [0110]-[0111], Figs. 13 and 14 (discussing headphones 14 (referred to as a receiver apparatus/headset unit 700) that contains a receiver DSP 710 serving as the central control), EX1003, ¶149. Similarly, speakers 1144 and 1146 also contain “appropriate decoders.” Richenstein, [0187]. The aforementioned decoders, as well as the receiver DSP are all processors. EX1003, ¶149.

Accordingly, Richenstein discloses various playback devices that contain *one or more processors*.

3. [1.2] tangible, non-transitory computer readable memory comprising instructions stored therein, wherein the instructions, when executed, cause the playback device to perform a method comprising:

Richenstein discloses (1) a boot/program memory 630 or (2) a DSP ROM on the transmitting side, and (3) a boot/program memory 730 or (4) a DSP ROM on the receiving side, all of which meet this claim limitation. *See* EX1003, ¶¶151-154.

On the transmitting side, Richenstein discloses that audio device 34 contains a boot/program memory 630 storing software program for controlling a DSP 600 that serves as the central control for the encoder 626 circuitry. *See* Richenstein, [0084]-[0085]; *see also* Richenstein, Fig. 7, EX1003, ¶¶152-153. The DSP software can also be provided in a DSP read-only-memory (ROM). Richenstein, [0085]. In addition, to the extent computer 1142 uses resources other than its audio portions 34 to process audio data, a POSITA would understand that computer 1142 also contains a memory to store the control software. *See* EX1003, ¶¶152-153.

Similarly, on the receiving side, Richenstein discloses that each receiver contains a boot/program memory 730 storing software program for controlling a DSP 710 that serves as the central control for the receiver circuitry. *See* Richenstein, [0111], [0127]; *see also* Richenstein, Fig. 14, EX1003, ¶154. A DSP ROM can also be used to store the software program. Richenstein, [0127].

4. [1.3] arming the playback device so that receipt of a first type of media content preempts playback of a second type of media content;

Richenstein discloses *arming the playback device* (playback device is capable of performing automatic switching of audio sources) *so that receipt of a first type of media content* (audio signals received in a priority channel) *preempts* (overrides or automatically switches) *playback of a second type of media content* (audio signals in a non-priority channel). *See* EX1003, ¶¶155-162.

As discussed above in Grounds 1-2, claim limitation [1.3], the '023 Patent describes that a playback device “is now armed (or rearmed)” after signals are no longer detected on its line-in connector such that the playback device is ready to once again automatically switch playback to the line-in source when the playback device once again detects a signal on the line-in connector. *See* '023 Patent, 7:4-12; *see also* EX1003, ¶¶68-69, 156.

Richenstein discloses the same “arming” of the disclosed playback device such that the “armed” playback device is capable of performing automatic switching of audio sources. *See* EX1003, ¶157. For example, Richenstein discloses an automatic channel selection feature where a priority channel can cut in and override a non-priority channel, such that the non-priority channel is automatically switched to the priority channel. *See* Richenstein, [0048], [0050], [0147], EX1003, ¶157.

Audio device 34 can perform this functionality by incorporating control signals into the digital bitstream. *See* Richenstein, [0052], EX1003, ¶158. For example, information used for automatic channel selection can be included in one or more control code sections 102 in a header section 87 of a transmitted package 86. *See* Richenstein, [0052] [0059], [0063], Fig. 3; *see also* EX1003, ¶158.

Furthermore, a POSITA would understand that the computer 1142 can do the same. *See* Richenstein, [0193] (describing priority signal functionality and indicating that “[t]his feature is similar to the priority channel discussed above”), Fig. 26; *see also* EX1003, ¶161.

Richenstein provides examples of various priority channels, such as a baby monitor channel ([0047]-[0048]), a channel for communication between a driver and passengers ([0147]), a cell phone channel ([0147], [0193]), a front door monitor channel ([0048]), a medical monitor channel ([0151]), a landline indication channel ([0193]), a doorbell ringing channel ([0193]), and a driveway or yard sensor channel ([0193]). Audio signals of these priority channels are received by audio device 34 at one or more source input connectors (e.g., labelled as lines 1-8 in Fig. 1), or by computer 1142 at a signal input connector 1150. *See* EX1003, ¶¶159-162.

5. [1.4] after arming the playback device, playing the second type of media content;

Richenstein discloses *after arming the playback device, playing the second type of media content* (playing non-priority channel) because when the playback device disclosed by Richenstein is playing audio in a non-priority channel, the playback device has already been armed, such that it is capable of performing automatic switching of audio sources. See EX1003, ¶¶163-166.

For example, audio device 34, while sending audio data to headphones 14 in a non-priority channel for playing according to a listener's selection, is already capable of transmitting a priority channel to headphone 14 to "automatically override the listener's selection." Richenstein, [0048]; *see also* Richenstein, [0147], [0193]; EX1003, ¶164.

Similarly, while transmitting computer generated audio data to headphone 14 or speakers 1144, 1146, computer 1142 is also already capable of transmitting priority signals to these receiving devices in "a separate priority [channel that will be] automatically selected when such data is received." Richenstein, [0193]. See EX1003, ¶165.

6. **[1.5] while playing the second type of media content, determining that the playback device is receiving the first type of media content via a line-in connector;**

Richenstein discloses *while playing the second type of media content* (non-priority channel), *determining that the playback device is receiving the first type of media content* (priority channel is active) *via a line-in connector* (e.g., source input connectors of audio device 34, signal input connector 1150). See EX1003, ¶¶167-171.

Richenstein *determin[es]* that the playback device is receiving the first type of media content by determining that a priority channel is active. Richenstein discloses transmitting Channel Status information which “indicate[s] which stereo channels (left and right channels) contain active audio data” by flagging the Channel Status as OFF (zero) or ON (one) for when the audio is inactive and active, respectively. Richenstein, [0100]; *see also* EX1003, ¶168. Richenstein further discloses determining whether a channel is active by comparing the sum of the absolute values of a certain number of data samples with an audio threshold. *See* Richenstein, [0101]; *see also* EX1003, ¶168. When Richenstein determines that the priority channel is active (Channel Status is flagged as ON), Richenstein *determin[es]* that the playback device is receiving the first type of media content. *See* EX1003, ¶168.

Richenstein discloses making this determination *while playing the second type of media content* because the “Channel Status information is preferably updated each time a packet is created.” This includes the creation of the packet carrying audio data in a non-priority channel currently being played by a receiving device. Richenstein, [0101]; *see also* Richenstein, [0108], EX1003, ¶169. For the audio of a priority channel to override a currently playing non-priority channel, the priority channel must be determined to be active “each time a packet is created.” Richenstein, [0101]; *see also* EX1003, ¶169. This includes when a non-priority channel is being played. *See* EX1003, ¶169. Accordingly, Richenstein *determin[es] that the playback device is receiving the first type of media content while playing the second type of media content.*

Finally, Richenstein’s priority channel audio signals are received *via a line-in connector*. Audio device 34 has multiple line-in connectors, including eight source input connectors labeled as line 1 to line 8 in Fig. 1, each of which is a line-in connector. *See e.g.*, Richenstein, [0039]; *see also* Richenstein, [0042] (discussing legacy adapter with “analog audio input”), EX1003, ¶170. In an example in which audio signals of a front door monitor or a baby monitor are provided in a priority channel, Richenstein discloses receiving audio from these priority channels via channel 4R, which corresponds to one of line 1 to line 8 line-in connectors. *See* Richenstein, [0048]; *see also* EX1003, ¶170. Moreover, signal input connector 1150

is also a line-in connector as it can receive priority signals from “a landline, cell phone or doorbell ringing or a driveway or yard sensor output.” Richenstein, [0193]; *see also* EX1003, ¶170.

7. [1.6] in response to determining that playback device is receiving the first type of media content, ceasing playback of the second type of media content and playing the first type of media content;

Richenstein discloses *in response to determining that playback device is receiving the first type of media content* (a priority channel), *ceasing playback of the second type of media content* (stopping a non-priority channel) *and playing the first type of media content* (playing the priority channel). *See* EX1003, ¶¶172-175.

As discussed above, Richenstein’s priority channel can “automatically override the listener’s selection of one of the stereo channels,” which constitutes *ceasing playback of the second type of media content* (e.g., stop playing the listener’s current selection of non-priority channel) *and playing the first type of media content* (e.g., the priority channel). Richenstein, [0048]; *see also* Richenstein, [0048], [0147], EX1003, ¶173.

This cessation is in response to determining that the priority channel is active. The Channel Status is determined “each time a packet is created.” Richenstein, [0101]; *see also* EX1003, ¶174. Therefore, the creation of a packet indicating the priority channel is active, which causes the subsequent automatic override of the

non-priority channel, is in response to the determination that the priority channel is active, *i.e.*, determining that the playback device is receiving the audio signals in the priority channel (*i.e.*, the first type of media content). *See* EX1003, ¶¶174-175.

8. [1.7] determining that the playback device is no longer receiving the first type of media content; and

Richenstein discloses *determining that the playback device is no longer receiving the first type of media content* (priority channel is inactive). *See* EX1003, ¶¶176-177

As discussed above, Richenstein discloses determining whether the priority channel is active “each time a packet is created.” Richenstein, [0101]; *see also* EX1003, ¶177. Richenstein also discloses that “[i]f active audio is not detected on a stereo channel, the Channel Status can be flagged in the outgoing packets as OFF (zero).” Richenstein, [0100]. Therefore, when the playback device is no longer receiving signals in the priority channel (*the first type of media content*), Richenstein will determine that the priority channel is inactive (e.g., no active audio is detected on the priority channel), the playback device disclosed by Richenstein thus *determin[es] that the playback device is no longer receiving the first type of media content*. *See* EX1003, ¶177.

9. **[1.8] in response to determining that the playback device is no longer receiving the first type of media content, ceasing playback of the first type of media content and rearming the playback device so that subsequent receipt of the first type of media content preempts playback of the second type of media content.**

Richenstein discloses *in response to determining that the playback device is no longer receiving the first type of media content, ceasing playback of the first type of media content* (stop playing the priority channel) *and rearming the playback device so that subsequent receipt of the first type of media content preempts playback of the second type of media content* (subsequent activation of the priority channel will override then playing non-priority channel). See EX1003, ¶¶178-180.

In the example above, Richenstein discloses that “[i]f active audio is not detected on a stereo channel, the Channel Status can be flagged in the outgoing packets as OFF (zero).” Richenstein, [0100]; *see also* Richenstein, [0101], EX1003, ¶179. Therefore, when the playback device disclosed by Richenstein is no longer receiving audio signals in the priority channel, the priority channel is determined to be inactive, and the Channel Status is flagged as OFF, the outgoing packets of the priority channel will no longer override the non-priority channel. EX1003, ¶179. In this case, Richenstein discloses that the previously overridden non-priority channel can be switched back. See Richenstein, [0048] (“a fixed or adjustable time period after the audio level in the baby monitor channel no longer exceeds the preset level,

switching selector 78 may be configured to automatically return to the stereo channel earlier selected by the listener.”); *see also* EX1003, ¶179. By automatically returning to the channel earlier selected by the listener, the playback of the priority channel is ceased. Richenstein therefore discloses *in response to determining that the playback device is no longer receiving the first type of media content, ceasing playback of the first type of media content.*

A POSITA would understand that in such a configuration, if the priority channel once again becomes active (e.g., the Channel Status is once again flagged as ON), the automatic channel switching mechanism would again override the currently playing non-priority channel with the priority channel. *See* EX1003, ¶180. Accordingly, a POSITA would understand that the playback device disclosed by Richenstein is *rearm[ed]* so that subsequent receipt of the first type of media content preempts playback of the second type of media content. *See* EX1003, ¶180.

C. Dependent Claim 2: The playback device of claim 1, wherein playing the second type of media content comprises receiving the second type of media content via at least one of a wireless or a wired network interface.

Richenstein discloses a playback device *wherein playing the second type of media content (non-priority channel) comprises receiving the second type of media content via at least one of a wireless or a wired network interface.* *See* EX1003, ¶¶181-183.

Richenstein discloses that portable MP3 player 45 can transmit media content wirelessly to audio device 34 via a digital bitstream 17. Richenstein, [0195]-[0196], Fig. 27; *see also* EX1003, ¶182. Accordingly, Richenstein discloses receiving media content from the MP3 player via a wireless network interface (e.g., combined transmitter/receiver 19).

As shown below, media content from portable MP3 player 45 is the second type of media content because it can be transmitted in a non-priority channel subject to be overridden by a priority channel received from a line-in connector (e.g., any one of source input connectors of audio source 34). *See also* EX1003, ¶¶182-183.

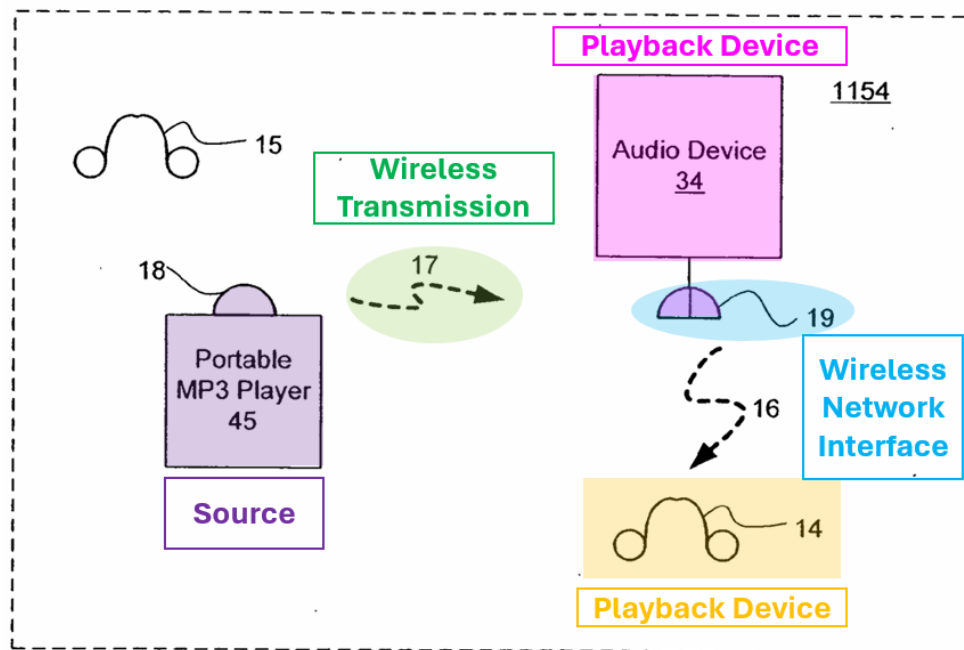


Fig. 27

Richenstein, Fig. 27 (Annotated); *see also* EX1003, ¶183.

D. Dependent Claim 3: The playback device of claim 1, wherein playing the second type of media content comprises playing the second type of media content in synchrony with a second playback device.

Richenstein discloses a playback device *wherein playing the second type of media content comprises playing the second type of media content in synchrony with a second playback device*. See EX1003, ¶¶184-192.

In connection with Fig. 26, Richenstein discloses a computer 1142 which provides its computer-generated audio output to speakers 1144 and 1146, or headphones 14 via an encoded bitstream 16. See Richenstein, [0187]-[0188]; *see also* EX1003, ¶185. This computer is capable of performing the automatic switching features discussed above in claim 1, with examples of priority channels being a landline, a cellphone, a doorbell, or a driveway or yard sensor output received at signal input connector 1150. See Richenstein, [0193] (describing “apply[ing] priority signals to computer” and that “[t]his feature is similar to the priority channel discussed above”); *see also* EX1003, ¶185. In this case, the priority signals are the first type of media content and the computer-generated audio is the second type of media content.

Richenstein discloses that the computer-generated audio can be simultaneously transmitted to speakers 1144 and 1146, as well as headphones 14 for playback. Richenstein, [0187]-[0188]; *see also* EX1003, ¶¶185-187. A POSITA

would expect this playback of the audio to be synchronized across the three playback devices to avoid echoes. EX1003, ¶187. Indeed, Richenstein discloses various methods for synchronizing audio playback between multiple devices. *See* Richenstein, [0068]-[0070]; *see also* EX1003, ¶¶187-188. Accordingly, speakers 1144, 1146 and headset 14, all of which are playback devices, can play the second type of media content in synchrony.

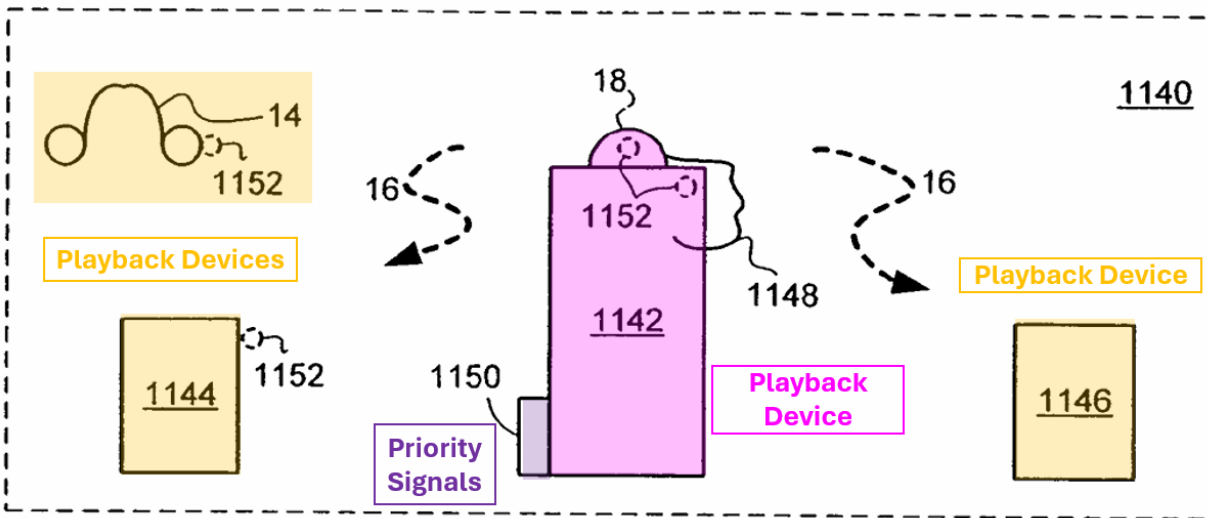


Fig. 26

Richenstein, Fig. 26 (annotated); EX1003, ¶189.

Richenstein further discloses using its invention “to provide an audio format, such as the 5.1 format used for home and professional theaters.” Richenstein, [0049]. This audio format requires the use of at least three distinct audio channels played using at least three different speakers, playing in synchrony, in order to create a surround sound experience. EX1003, ¶¶190-191.

Accordingly, a POSITA would understand Richenstein to disclose a playback device *wherein playing the second type of media content comprises playing the second type of media content in synchrony with a second playback device.*

E. Dependent Claim 4: The playback device of claim 1, wherein playing the second type of media content comprises receiving the second type of media content from an Internet-accessible media source.

Richenstein discloses a playback device *wherein playing the second type of media content comprises receiving the second type of media content from an Internet-accessible media source.* See EX1003, ¶¶193-197.

With respect to Fig. 27, which uses a portable MP3 player 45 as an audio source, a POSITA would understand that such a portable MP3 player in or around 2011, such as an iPod Touch, would be an Internet-accessible media source. Richenstein, [0195]-[0196], Fig. 27; *see also* EX1003, ¶194.

Additionally, Richenstein also discloses examples of receiving media content, such as television and music channels, from “a connection to the Internet via cable modem 1024.” Richenstein, [0176]. A POSITA would understand these to be digital audio sources that audio device 34 could access. EX1003, ¶195.

Accordingly, a POSITA would understand that Richenstein discloses a playback device *wherein playing the second type of media content comprises receiving the second type of media content from an Internet-accessible media source.*

To the extent this limitation is not disclosed, a POSITA would find it obvious to replace portable MP3 player 45 with an Internet-accessible device as the media source to transmit audio data to audio device 34 using the same wireless transmission link shown in Fig. 27, in order to provide users with the expansive media library that the internet offers. *See* EX1008, 2 (discussing availability of media on iTunes store), EX1009, 1 (touting iPod’s ability to allow users to wirelessly watch over 10 million free videos on YouTube); *see also* EX1003, ¶197.

F. Dependent Claim 5: The playback device of claim 1, wherein playing the second type of media content comprises transmitting at least a portion of the second type of media content to a third playback device.

Richenstein discloses *transmitting at least a portion of the second type of media content to a third playback device*. *See* EX1003, ¶¶198-203.

While claim 5 calls for “a third playback device,” there is no mention of a second playback device in claim 5 or its base claim 1.

To the extent that the *third playback device* merely requires a playback device other than the *playback device* from claim 1, Richenstein discloses, with respect to Fig. 27, audio device 34 transmitting media content received from portable MP3 player 45 (the *second type of media content*), to headphones 14 (the *third playback device*) for playback via a bitstream 16. Richenstein, [0196], Fig. 27; *see also* EX1003, ¶199.

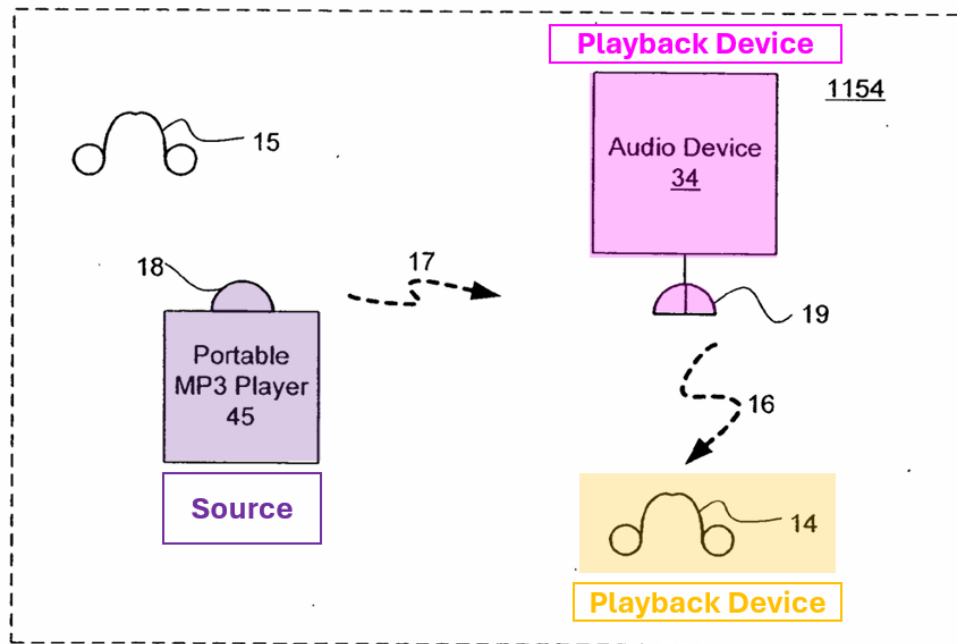


Fig. 27

Richenstein, Fig. 27 (annotated); *see also* EX1003, ¶199.

To the extent the claim requires a total of three playback devices, Fig. 26 provides a further example where speakers 1144, 1146 and headset 14 are all playback devices which receive audio signals wirelessly from transmitter 18 connected to computer 1142. *See* Richenstein, [0187]-[0188]; *see also* EX1003, ¶200. While playing the computer generated audio (the second type of media content) simultaneously (*see* Richenstein, [0188]), each of speakers 1144, 1146 and headset 14 can be the claimed third playback device, as shown below.

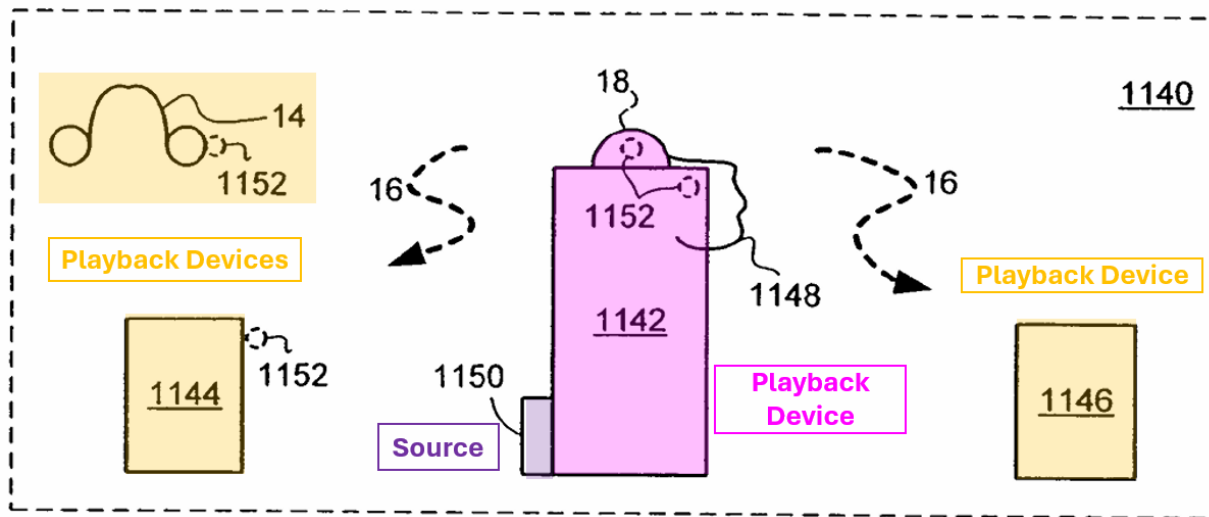


Fig. 26

Richenstein, Fig. 26 (Annotated); *see also* EX1003, ¶200.

Richenstein also discloses sending audio information to a home theatre system, which a POSITA would understand comprises at least three different playback devices. *See* Richenstein, [0049] (describing five channels); *see also* Richenstein, [0049], [0051], [0178], EX1003, ¶¶201-203. A POSITA would understand that Richenstein's home theatre can play the *second type of media content*, which can include any non-priority channels.

Accordingly, Richenstein discloses a playback device *wherein playing the second type of media content comprises transmitting at least a portion of the second type of media content to a third playback device*. *See* EX1003, ¶203.

G. Dependent Claim 6: The playback device of claim 1, wherein playing the first type of media content comprises transmitting at least a portion of the first type of media content to at least one of a second playback device or a third playback device.

Richenstein discloses *transmitting at least a portion of the first type of media content to at least one of a second playback device or a third playback device*. See EX1003, ¶204-206.

With respect to Fig. 26, Richenstein describes receiving priority signals from signal input connector 1150 and, upon receipt of such signals, overriding non-priority channels. See Richenstein, [0193], Fig. 26; *see also* EX1003, ¶205. Because speakers 1144, 1146 and headset 14 are all playback devices that receive audio signals wirelessly from transmitter 18, this claim limitation is met when the priority signals received at signal input connector 1150 are transmitted by transmitter 18 to speakers 1144, 1146 and headset 14 to override a non-priority channel, *i.e., transmitting at least a portion of the first type of media content* (priority signals received at signal input connector 1150) *to at least one of a second playback device or a third playback device* (any of speakers 1144, 1146 and headset 14), as shown in the annotated Fig. 26 below. See Richenstein, [0187]-[0188]; *see also* EX1003, ¶205.

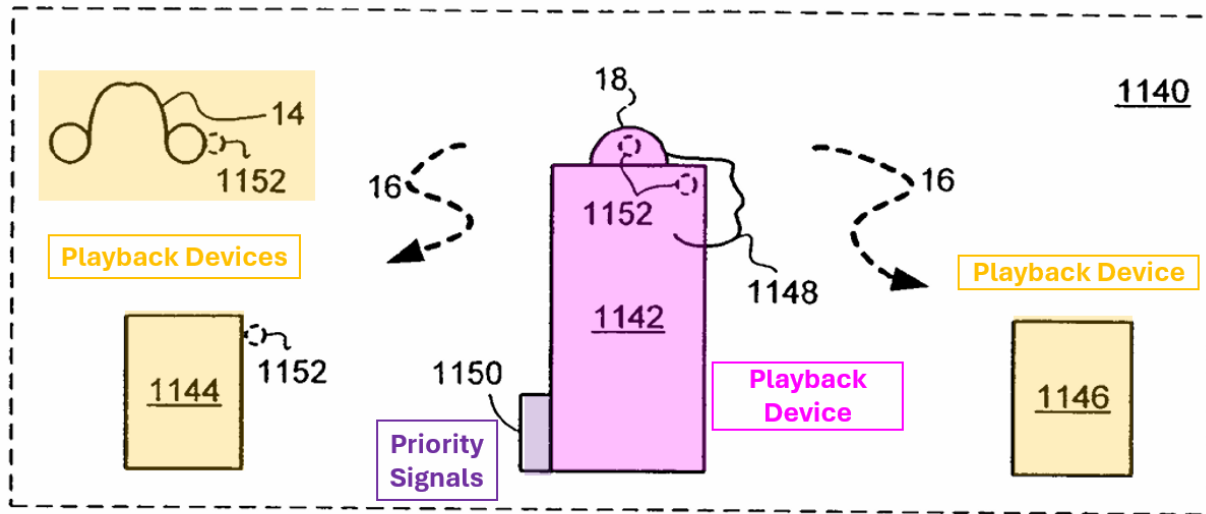


Fig. 26

Richenstein, Fig. 26 (Annotated); *see also* EX1003, ¶205.

With respect to Fig. 27, Richenstein describes audio device 34 transmitting media content to headphones 14 (a playback device) for playback. *See* Richenstein, [0196], Fig. 27; *see also* annotated Fig. 27 below. As discussed above in claim 1, Richenstein further discloses the audio device 34 receiving priority channel signals via a line-in connector, which automatically override a non-priority channel while the non-priority channel is playing. *See* Richenstein, [0048], Fig. 1. Therefore, Richenstein discloses *transmitting at least a portion of the first type of media content (e.g., priority channel) to at least one of a second playback device or a third playback device (e.g., headphones 14)*. *See* EX1003, ¶206.

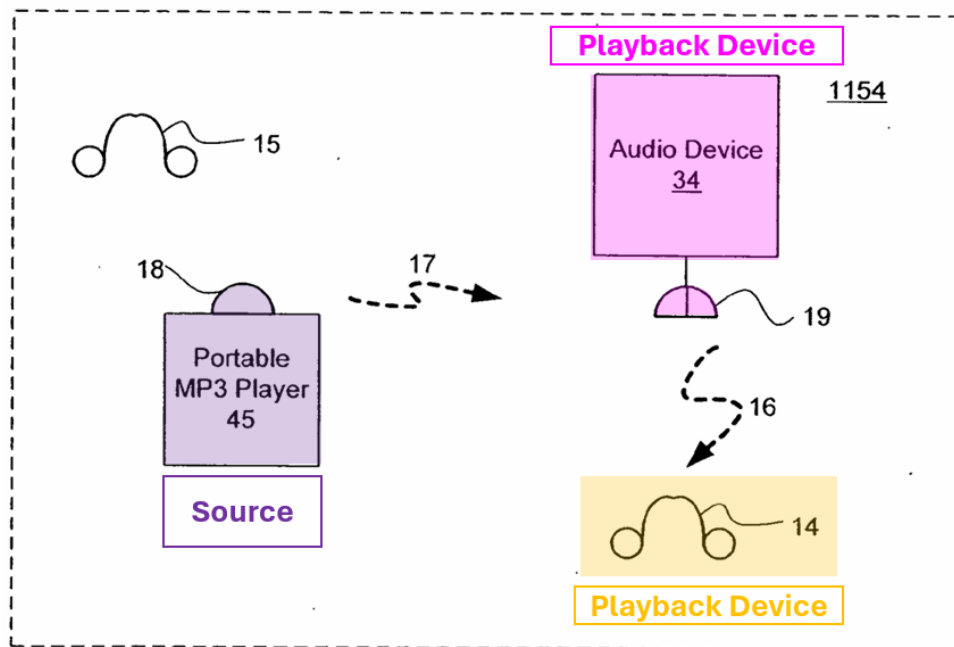


Fig. 27

Richenstein, Fig. 27 (Annotated); *see also* EX1003, ¶206.

H. Dependent Claim 7: The playback device of claim 1, wherein the first type of media content comprises media content received from a video device.

Richenstein discloses or renders obvious *wherein the first type of media content comprises media content received from a video device*. *See* EX1003, ¶¶207-208.

Richenstein discloses examples wherein the priority signals (the first type of media content) are received from video sources, such as a baby monitor, [0048], a front door monitor, [0048], and a cell phone, [0193]. *See* EX1003, ¶208, EX1008, 2.

Accordingly, Richenstein discloses that the first type of media content is *received from a video device*.

I. Independent Claim 8

The limitations of claim 8 are substantially identical to the limitations of claim 1, as discussed in Grounds 1-2. Accordingly, Richenstein discloses, teaches, or suggests the device of claim 8 for the same reasons as explained for the corresponding limitations in column 1, as outlined in the chart below. To the extent the precise language of the two claims differ, such differences are insubstantial and do not alter the analysis above. *See* EX1003, ¶¶209-210.

J. Dependent Claim 9: The tangible, non-transitory computer-readable media of claim 8, wherein playing the second type of media content comprises receiving the second type of media content via at least one of a wireless or a wired network interface.

This claim is substantively identical to claim 2. Accordingly, Richenstein discloses, teaches, or suggests this claim for the same reasons discussed above. *See* EX1003, ¶211.

K. Dependent Claim 10: The tangible, non-transitory computer-readable media of claim 8, wherein playing the second type of media content comprises receiving the second type of media content from an Internet-accessible media source.

This claim is substantively identical to claim 4. Accordingly, Richenstein discloses, teaches, or suggests this claim for the same reasons discussed above. *See* EX1003, ¶212.

- L. Dependent Claim 11: The tangible, non-transitory computer-readable media of claim 8, wherein playing the second type of media content comprises transmitting at least a portion of the second type of media content to a third playback device.**

This claim is substantively identical to claim 5. Accordingly, Richenstein discloses, teaches, or suggests this claim for the same reasons discussed above. *See* EX1003, ¶213.

- M. Dependent Claim 12: The tangible, non-transitory computer-readable media of claim 8, wherein playing the first type of media content comprises transmitting at least a portion of the first type of media content to at least one of a second playback device or a third playback device.**

This claim is substantively identical to claim 6. Accordingly, Richenstein discloses, teaches, or suggests this claim for the same reasons discussed above. *See* EX1003, ¶214.

- N. Dependent Claim 13: The tangible, non-transitory computer-readable media of claim 8, playback device of claim 1, wherein the first type of media content comprises media content received from a video device.**

This claim is substantively identical to claim 7. Accordingly, Richenstein discloses, teaches, or suggests this claim for the same reasons discussed above. *See* EX1003, ¶215.

O. Independent Claim 14

The limitations of claim 14 are substantially identical to the limitations of claim 1, as discussed in Grounds 1-2. Accordingly, Richenstein discloses, teaches,

or suggests the method of claim 14 for the same reasons as explained for the corresponding limitations in column 1, as outlined in the chart below. To the extent the precise language of the two claims differ, such differences are insubstantial and do not alter the analysis above. *See* EX1003, ¶216.

P. Dependent Claim 15: The method of claim 14, wherein playing the second type of media content comprises receiving the second type of media content via at least one of a wireless or a wired network interface.

This claim is substantively identical to claim 2. Accordingly, Richenstein discloses, teaches, or suggests this claim for the same reasons discussed above. *See* EX1003, ¶217.

Q. Dependent Claim 16: The method of claim 14, wherein playing the second type of media content comprises playing the second type of media content in synchrony with a second playback device.

This claim is substantively identical to claim 3. Accordingly, Richenstein discloses, teaches, or suggests this claim for the same reasons discussed above. *See* EX1003, ¶218.

R. Dependent Claim 17: The method of claim 14, wherein playing the second type of media content comprises receiving the second type of media content from an Internet-accessible media source.

This claim is substantively identical to claim 4. Accordingly, Richenstein discloses, teaches, or suggests this claim for the same reasons discussed above. *See* EX1003, ¶219.

VII. DISCRETIONARY DENIAL DOES NOT APPLY

A. 35 U.S.C. § 325(d)

The Board should not deny institution under §325(d) under *Advanced Bionics* because no “same or substantially the same” art or arguments were previously presented to the USPTO. Barbe and Richenstein were not of record and none of the grounds raised has been presented or considered during prosecution. *See generally* EX1002.

Had the Examiner known of Barbe and Richenstein, it would not have allowed the '023 Patent to issue, at least because each reference expressly discloses the “dedicated line in connector” that led to the allowance. EX1002, 18.

B. 35 U.S.C. § 314(a)

1. Fintiv Factors Favor Institution

No discretionary denial is warranted under §314(a) either, as the six *Fintiv* factors favor institution under *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) and the USPTO’s *Interim Procedure for Discretionary Denials*, 8-9 (June 21, 2022) (“*Interim Procedure*”).

Factor 6 requires institution because this Petition presents anticipation and single reference obviousness grounds based on two different references each disclosing or suggesting all limitations of every challenged claim, presenting “a

compelling unpatentability challenge,” effectively eliminating the needs to evaluate other *Fintiv* factors. *Interim Procedure* at 4-5.

To the extent analysis of other factors are still necessary, Factors 2-4 all favor institution.

For **Factor 2**, trial will likely occur after the deadline for an FWD.⁵ *See Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 15 (PTAB Dec. 1, 2020) (precedential). The median and average time to trial in Delaware for jury trial cases is 32 and 34 months respectively, putting trial between two and four months *after* the deadline for an FWD. EX1013; *see also Interim Procedure*, 8-9 (valuing the time to trial statistics because the actual scheduled trial date is “unreliable” and “not by itself a good indicator.”).

Even considering the actual schedule, a trial is likely to be after or at least coincide with the FWD. Trial was initially set for May 2026. EX1010, 13. However, nearly a year after the original complaint, Patent Owner amended its complaint to add a new party and a new patent, prompting a joint stipulation from Petitioner and Patent Owner indicating that they “anticipate jointly requesting around a 90-day extension to all current dates,” but only requesting the Court “extend the most imminent deadlines” so as to give the new party a chance to weigh in on the schedule.

⁵ Petitioner expects an FWD in August 2026.

EX1011; *see also* EX1012 (approving stipulation). Accordingly, the Court will likely reschedule the rest of the case, putting trial after August 2026, when the FWD is expected. Even just the “significant uncertainty around the scheduled trial date” here should favor institution. *See Sand Revolution II v. Continental Intermodal Grp. – Trucking LLC*, IPR2019-01393, Paper 24 at 8-10 (Jun. 16, 2020) (informative) (finding factor favor institution when there is significant uncertainty around the scheduled trial date, despite trial date scheduled for six months *before* FWD deadline).

For **Factor 3**, the investment in the co-pending litigation has been minimal. The parties have only served initial contentions and the district court has issued no substantive orders related to the '023 patent. Furthermore, claim construction has not begun and will not have concluded by the deadline for an institution decision, thus favoring institution.⁶ *See PEAG LLC v. Varta Microbattery GmbH*, IPR2020-01214, Paper 8 at 17 (PTAB Jan. 6, 2021). Furthermore, Petitioner filed this Petition only half a month after Patent Owner’s supplemental contentions, which included an identification of asserted claims. *See Fintiv*, Paper 11 at 11 (PTAB Mar. 20, 2020)

⁶ The parties’ joint *Markman* brief is due on July 14, 2025. EX1012. Based on previous cases from Judge Ranjan, a *Markman* order is unlikely to issue until September 2025, a month *after* the deadline for an institution decision. *See* EX1015 (over two months between *Markman* briefing and *Markman* order), EX1016 (same).

(precedential) (filing petition “promptly after becoming aware of the claims being asserted” weighs in favor of institution).

For **Factor 4**, Petitioner will not pursue the same grounds in the district court litigation, if the IPR is instituted, which favors institution. *Sand Revolution*, Paper 24 at 7.

Factor 1 is neutral as no stay has been requested or granted. *Fintiv*, Paper 15 at 12 (PTAB Mar. 13, 2020).

Although Petitioner is also the defendant in the litigation, **Factor 5** does not warrant denial.

VIII. MANDATORY NOTICES UNDER 37 C.F.R. § 42.8

A. Real Party-in-Interest

The real party-in-interest includes Linkplay Technology Inc. and Linkplay Technology Inc., Nanjing.

B. Related Matters

The '023 Patent is involved in the following co-pending civil action: *Sonos, Inc. v. Linkplay Technology Inc. et al.*, No. 1:24-cv-00131-JNR (D. Del.) to which Petitioner is a party.

C. Lead and Back-up Counsel and Service Information

Petitioner identifies the following lead and back-up counsels:

Lead Counsel	Back-up Counsel
Gang (Gavin) Ye (Reg. No. 69,585) gavin.ye@bayes.law Bayes PLLC 8260 Greensboro Drive, Suite 625 McLean, VA 22102 Tel: 703-995-9887 Fax: 703-821-8128	Andrew Landers Ramos (Reg. No. 76,865) andrew.ramos@bayes.law Bayes PLLC 8260 Greensboro Drive, Suite 625 McLean, VA 22102 Tel: 703-995-9887 Fax: 703-821-8128 Jiayu (Mandy) Song (Reg. No. 69,583) mandy.song@bayes.law Bayes PLLC 8260 Greensboro Drive, Suite 625 McLean, VA 22102 Tel: 703-995-9887 Fax: 703-821-8128

Petitioner consents to electronic service at Linkplay-Sonos-IPR@bayes.law, as well as the above email addresses.

D. Standing

Petitioner certifies under 37 C.F.R. § 42.104(a) that the '023 Patent is available for IPR, and Petitioner is not barred or estopped from requesting IPR challenging the patent claims on the grounds identified in this Petition.

IX. CONCLUSION

Based on the grounds specified above, IPR of all challenged claims is respectfully requested.

Respectfully submitted,

BAYES PLLC

/Gang Ye/

Gang (Gavin) Ye

Registration No. 69,585

Lead Counsel for Petitioner

Date: February 1, 2025
8260 Greensboro Drive, Suite 625
McLean, VA 22102
(703) 995-9887

CERTIFICATION UNDER 37 C.F.R. § 42.24(d)

This Petition complies with the requirements of 37 C.F.R. § 42.24. As calculated by the word count feature of Microsoft Word, it contains 13,043 words, excluding the words contained in the following: Table of Contents, Table of Authorities, List of Exhibits, Mandatory Notices, Certification Under § 42.24(d), and Certificate of Service.

/Gang Ye/
Gang (Gavin) Ye
Registration No. 69,585
Lead Counsel for Petitioner

CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing **Petition for *Inter Partes* Review, the associated Power of Attorney, and Exhibits 1001 through 1013, and 1015 through 1023** are being served on February 1, 2025, by U.S. Priority Express Mail at the following address of record for the subject patent.

107361 – Akerman LLP / Sonos, Inc.
777 S. Flagler Drive,
Suite 1100 West Tower
West Palm Beach, FL 33401

A courtesy copy was also sent via electronic mail to Patent Owner's litigation counsel at the following addresses:

Philip A. Rovner (#3215)
provner@potteranderson.com
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POTTER ANDERSON & CORROON LLP

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