US 20230232175A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2023/0232175 A1**

Oishi et al. (43) **Pub. Date: Jul. 20, 2023**

(54) **PLAYBACK DEVICE CONFIGURATION**

(71) Applicant: **Sonos, Inc.**, Santa Barbara, CA (US)

(72) Inventors: **Tetsuro Oishi**, Santa Barbara, CA (US); **William H. Bush**, Santa Clarita, CA (US)

(21) Appl. No.: **18/069,042**

(22) Filed: **Dec. 20, 2022**

Related U.S. Application Data

(63) Continuation of application No. 17/033,818, filed on Sep. 27, 2020, now Pat. No. 11,540,073, which is a continuation of application No. 16/713,858, filed on Dec. 13, 2019, now Pat. No. 10,791,407, which is a continuation of application No. 16/416,648, filed on May 20, 2019, now Pat. No. 10,511,924, which is a continuation of application No. 16/102,499, filed on Aug. 13, 2018, now Pat. No. 10,299,055, which is a continuation of application No. 15/681,640, filed on Aug. 21, 2017, now Pat. No. 10,051,399, which is a continuation of application No. 15/339,260, filed on Oct. 31, 2016, now Pat. No. 9,743,208, which is a continuation of application No. 15/066,049, filed on Mar. 10, 2016, now Pat. No. 9,521,487, which is a continuation of application No. 14/921,781, filed on Oct. 23, 2015, now Pat. No. 9,439,021, which is a continuation of application No. 14/216,325, filed on Mar. 17, 2014, now Pat. No. 9,264,839.

Publication Classification

(51) **Int. Cl.**

H04R 29/00	(2006.01)
H04S 7/00	(2006.01)
H04R 3/04	(2006.01)
H04R 27/00	(2006.01)
G06F 3/16	(2006.01)
H04R 1/32	(2006.01)
H04R 3/12	(2006.01)
H04R 5/04	(2006.01)

(52) **U.S. Cl.**

CPC ***H04R 29/007*** (2013.01); ***H04S 7/307*** (2013.01); ***H04R 3/04*** (2013.01); ***H04R 27/00*** (2013.01); ***G06F 3/165*** (2013.01); ***H04R 1/323*** (2013.01); ***H04R 3/12*** (2013.01); ***H04R 5/04*** (2013.01); ***H04R 29/001*** (2013.01); ***H04R 29/002*** (2013.01); *H04R 2227/003* (2013.01); *H04R 2227/005* (2013.01); *H04R 2430/03* (2013.01); *H04R 2499/13* (2013.01); *H04S 2420/07* (2013.01); *H04R 2227/001* (2013.01); *H04R 2420/03* (2013.01); *H04S 2400/01* (2013.01)

(57) **ABSTRACT**

Examples described herein involve configuring a playback device based on distortion, such as that caused by a barrier. One implementation may involve causing the playback device to play audio content according to an existing playback configuration, determining an existing frequency response of the playback device in a given system, and determining whether a difference between the existing frequency response of the playback device in the given system and a predetermined frequency response for the playback device is greater than a predetermined distortion threshold. If it is determined that the difference between the existing frequency response of the playback device and the predetermined frequency response for the playback device is greater than the predetermined distortion threshold, then the existing playback configuration of the playback device is changed to an updated playback configuration of the playback device and the playback device plays audio content according to the updated playback configuration.