NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

GOOGLE LLC,
Appellant

v.

SONOS, INC.,
Appellee

2024-2119, 2024-2120

Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Nos. IPR2023-00118, IPR2023-00119.

Decided: June 9, 2026

DANIEL C. TUCKER, Finnegan, Henderson, Farabow, Garrett & Dunner, LLP, Reston, VA, argued for appellant. Also represented by ATIYA SAFIYA AGUILAR, ERIKA ARNER, Washington, DC; CORY C. BELL, Boston, MA.

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Before MOORE, *Chief Judge*, LOURIE and REYNA, *Circuit Judges*.

MOORE, *Chief Judge*.

Google LLC (Google) appeals final written decisions (FWDs) of the Patent Trial and Appeal Board (Board) holding claims 1–5, 7–13, and 15–20 of U.S. Patent No. 10,134,398 and claims 1–7, 9–15, and 17–18 of U.S. Patent No. 10,593,330 unpatentable. For the following reasons, we *reverse* and *remand*.

BACKGROUND

Google owns the '398 and '330 patents, which are directed to improvements in hotword (e.g., "Hey Siri," "OK computer") detection in sound-enabled devices that address the problem of triggering multiple devices with a single hotword. '398 patent at Abstract, 3:43–48. The claimed improvements cause an intended device to react to a hotword and suppress reaction on other devices. *Id.* at 3:52–56. Devices detect and process a speech command, compute a confidence score that the speech command is a hotword, and transmit the confidence score to other devices. *Id.* at 5:6–10, 5:16–20, 5:32–34. A device determines whether to remain in a sleep state or transition to an active state based on the exchange of confidence scores with other devices. *Id.* at 11:19–29, Fig. 1. Claim 9 of the '398 patent is representative:

> [9.0] A system comprising:
>
> one or more computers and one or more storage devices storing instructions that are operable, when executed by the one or more computers, to cause the one or more computers to perform operations comprising:
>
> [9.1] receiving, by a computing device that is in a low power mode and that is configured to exit a low

> power mode upon detecting an utterance of a particular, predefined hotword using an on-device hotword detector, audio data that corresponds to an utterance of a particular, predefined hotword;
>
> [9.2] *while the computing device remains in the low power mode*, and in response to receiving the audio data that corresponds to the utterance of the particular, predefined hotword, *transmitting*, by the computing device and to another computing device that is configured to exit a low power mode upon detecting an utterance of the particular, predefined hotword, *an output of processing the audio data* using the on-device hotword detector;
>
> [9.3] *while the computing device remains in low power mode, receiving,* by the computing device and from the other computing device that is configured to exit a low power mode upon detecting an utterance of the particular, predefined hotword, *an additional output of processing the audio data*; and
>
> [9.4] *after transmitting* the output of processing the audio data using the on-device hotword detector *and after receiving* the additional output of processing the audio data from the other using device that is configured to exit a low power mode upon detecting an utterance of the particular, predefined hotword, *determining, by the computing device, to remain in the low power mode.*

Id. at 18:1–34 (emphases added).

Sonos, Inc. (Sonos) filed a petition for *inter partes* review challenging claims 1–5, 7–13, and 15–20 of the '398 patent and claims 1–7, 9–15, and 17–18 of the '330 patent as anticipated by and obvious over the prior art. J.A. 301–83; J.A. 3401–79. The Board held claims 1–3, 7–11, and 15–18 of the '398 patent and claims 1–3, 5, 7, 9–11, 13, 15, and 17–18 unpatentable as anticipated by U.S.

Patent No. 8,340,795 (Rosenberger). J.A. 21–46; J.A. 75–102. The Board held claims 4, 5, 12–13, and 19–20 of the '398 patent and claims 4, 6, 12, and 14 of the '330 patent unpatentable as obvious over Rosenberger in view of U.S. Patent Application Publication No. 2014/0163978 (Basye). J.A. 46–52; J.A. 103–108. Google appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

Anticipation is a question of fact, and we review the Board's factual findings for substantial evidence. *Sierra Wireless, ULC v. Sisvel S.p.A.*, 130 F.4th 1019, 1022 (Fed. Cir. 2025). Anticipation requires a single reference to disclose every claim limitation, either expressly or inherently. *Sage Prods., LLC v. Stewart*, 133 F.4th 1376, 1380 (Fed. Cir. 2025).

Google argues the Board reversibly erred in holding the independent claims of the '398 and '330 patents unpatentable as anticipated by Rosenberger. Appellant's Br. 24–35.[1] Specifically, Google argues the Board's finding that Rosenberger discloses transmitting messages while the computing device remains in a low power mode is unsupported by substantial evidence. *See id.* at 24. We agree.

The Board relied on column 8 of Rosenberger to support its finding that Rosenberger discloses a device exchanging weighted signals (i.e., the claimed messages) while in a low power "listening" mode to determine whether to exit the low power mode to interact with a user. J.A. 24–25, 37–42 (discussing J.A. 902 (Rosenberger) at 8:17–39). Column 8 of Rosenberger, however, never discloses exchanging weighted signals, let alone exchanging weighted signals while the device remains in the low power "listening" mode.

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[1] We cite the Board's FWD for the '398 patent only, as the FWD for the '330 patent is substantially the same.

Column 8 discloses that a device "normally operates in a low power 'listening' mode" and:

> [u]pon receiving and recognizing a speech trigger phrase and determining that it is in a better position to handle subsequent user interaction than any other device that simultaneously recognized the same speech trigger phrase (see device coordination discussion below), or when the user depresses the "Push to Talk" button 24 on the device, or in the event the device is instructed to wake up and expect a subsequent speech command by a system controller, the device beeps, changes its status light 34 or plays a prerecorded or synthesized audio message (e.g. "How may I help you?") through speaker 19 and/or 20 to prompt the user to say one of the speech commands from a known vocabulary or grammar stored in the speech pattern memory 14.

J.A. 902 at 8:17–32. The Board credited the testimony of Sonos' expert, Dr. Johnson, that while Rosenberger generally discloses devices configured to exit a low power mode before exchanging weighted signals, the column 8 passage discloses an instance where devices remain in the low power "listening" mode while exchanging weighted signals according to a coordination method. J.A. 40–41 (citing J.A. 818–19, 824–25 ¶¶ 121, 139). The "device coordination discussion" column 8 refers to and Dr. Johnson relies on for his anticipation opinion, however, describes embodiments where upon detecting a spoken trigger or command phrase, the devices exit the low power "listening" mode to calculate and exchange weighted signals. J.A. 904–05 at 11:27–14:9 (describing coordination methods depicted in Figs. 4, 5A, 5B, and 6). Rosenberger's column 8 disclosure therefore cannot anticipate because it fails to disclose the limitations directed to exchanging messages while in a low power mode. *See In re NTP, Inc.*, 654 F.3d 1279, 1302 (Fed. Cir. 2011) ("Keeping in mind that these are anticipation,

not obviousness rejections, the failure to disclose this claim element requires reversal of these rejections.").

Sonos offers two reasons why the Board's anticipation findings are supported by substantial evidence. Appellee's Br. 15–19. First, Sonos argues the Board reasonably found column 8's disclosure of a device that "changes its status light" corresponds to a change from the low power "listening" mode to a mode that consumes more power to handle a user's speech commands. Appellee's Br. 17–18 (citing J.A. 25); *see* J.A. 902 at 8:17–32. This finding is unsupported by substantial evidence because Rosenberger does not disclose that a change in status light indicates a transition out of the low power "listening" mode. Rather, column 8 discloses that "the device beeps, changes its status light 34 or plays a prerecorded or synthesized audio message . . . *to prompt the user to say one of the speech commands*." J.A. 902 at 8:28–32 (emphasis added). Rosenberger never suggests the change in status light indicates a change from the low power "listening" mode to a higher power consumption mode.

Second, Sonos argues the Board reasonably found column 8's disclosure that the device "wakes up" indicates the device exits the low power "listening" mode after "determining that it is in a better position to handle subsequent user interaction than any other device." Appellee's Br. 18–19 (citing J.A. 25, 40–41); *see* J.A. 902 at 8:26. Column 8's disclosure of the device waking up, however, does not result from the device determining it is in a better position to handle user interaction. J.A. 902 at 8:20–27. Column 8 discloses "determining that [a device] is in a better position to handle subsequent user interaction" and "instruct[ing] [the device] to wake up" as *alternatives* for getting the device to interact with the user. *Id.* at 8:20–32 (separating each alternative in the list by "or"). The Board's finding "that one device in a 'better position' than the other devices [to handle a subsequent user query] then exits its low power mode and 'wakes up' so it can respond to any subsequent user

query" is unsupported by substantial evidence because it assumes a causal relationship between two steps Rosenberger discloses as independent alternatives. J.A. 25.

Sonos argues we may nevertheless affirm under its alternative theory that Rosenberger anticipates the challenged claims because Rosenberger's devices remain in a low power mode other than Rosenberger's self-described, low power "listening" mode during coordination. Appellee's Br. 31–37. Sonos asserts that while exchanging coordination messages, devices would consume less power than when in an operating mode because components associated with user interaction and processing speech commands would consume less power. *Id.* at 33–35 (citing J.A. 338; J.A. 570–72). In Sonos' view, this reduced power consumption during coordination meets the parties' agreed-upon construction for "low power mode" of "an operating mode or state in which power is conserved." *Id.* at 33 (citing J.A. 20). It is undisputed, however, that the Board made no fact findings regarding this alternative "low power mode" theory in its FWDs. Appellant's Br. 35; Appellee's Br. 32. We decline to make fact findings regarding this alternative theory in the first instance and leave this issue for the Board to consider on remand. *See Regents of Univ. of Cal. v. Broad Inst., Inc.*, 903 F.3d 1286, 1294 (Fed. Cir. 2018) ("It is not our role to ask whether substantial evidence supports fact-findings not made by the Board, but instead whether such evidence supports the findings that were in fact made.").

CONCLUSION

We have considered Sonos' remaining arguments and find them unpersuasive. We *reverse* the Board's holdings that claims 1–3, 7–11, and 15–18 of the '398 patent and claims 1–3, 5, 7, 9–11, 13, 15, and 17–18 are anticipated by Rosenberger or obvious over Rosenberger and Basye. We *remand* for further proceedings consistent with this opinion.

REVERSED AND REMANDED

COSTS

Costs to Google.