Paper 37 Entered: Oct. 7, 2022

UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE PATENT TRIAL AND APPEAL BOARD BOSE CORP., Petitioner, V. KOSS CORP., Patent Owner. IPR2021-00680 Patent 10,469,934 B2

Before KARL D. EASTHOM, PATRICK R. SCANLON, and DAVID C. McKONE, *Administrative Patent Judges*.

EASTHOM, *Administrative Patent Judge*, with whom Judges Scanlon and McKone join as to Sections I, II A–F.1, and II.K.

McKONE, Administrative Patent Judge with whom Administrative Patent Judge Scanlon joins as to Sections II.F.2, II.H, and II.J.

EASTHOM, *Administrative Patent Judge*, dissenting as to Sections II.F.2, II.H, and II.J.

JUDGMENT
Final Written Decision
Determining Some Challenged Claims Unpatentable
35 U.S.C. § 318(a)



Bose Corp. ("Petitioner") filed a Petition (Paper 2, "Pet.") requesting an *inter partes* review of claims 1–22, 32–41, 47, and 49–62 of U.S. Patent No. 10,469,934 B2 (Ex. 1001, "the '934 patent"). Pet. 1. Petitioner filed a Declaration of Dr. Tim A. Williams (Ex. 1003) and a Declaration of Dr. John G. Casali (Ex. 1005) with its Petition. Koss Corp. ("Patent Owner") filed a Preliminary Response (Paper 10, "Prelim. Resp.").

After the Institution Decision (Paper 15, "Inst. Dec."), Patent Owner filed a Patent Owner Response (Paper 21, "PO Resp."), a Declaration of Joseph C. McAlexander III (Ex. 2047), and a Declaration of Nicholas S. Blair (Ex. 2048); Petitioner filed a Reply (Paper 27) and a Reply Declaration of Dr. Tim A. Williams (Ex. 1160); and Patent Owner filed a Sur-reply (Paper 29, "Sur-reply"). Thereafter, the parties presented oral arguments via a video hearing (March 17, 2022), and the Board entered a transcript into the record. Paper 36 ("Tr.").

For the reasons set forth in this Final Written Decision pursuant to 35 U.S.C. § 318(a), we determine that Petitioner demonstrates by a preponderance of evidence that the challenged claims are unpatentable.

I. BACKGROUND

A. Real Parties in Interest

The parties identify themselves as the real parties-in-interest. Pet. xix; Paper 3, 1.

B. Related Matters

The parties identify the following proceedings as related matters involving the '934 patent: *Koss Corp. v. Bose Corp.*, No. 6:20-cv-00661 (W.D. Tex.) (dismissed); *Koss Corp. v. Plantronics, Inc.*, No. 6:20-cv-00663 (W.D. Tex.) (transferred to N.D. Cal.); *Koss Corp. v. Skullcandy, Inc.*, No. 6:20-cv-00664 (W.D. Tex.) (dismissed); *Koss Corp. v. Apple Inc.*, No. 6:20-



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cv-00665 (W.D. Tex.); *Bose Corp. v. Koss Corp.*, No. 1:20-cv-12193 (D. Mass.); *Apple Inc. v. Koss Corp.*, No. 4:20-cv-05504 (N.D. Cal.); *Apple Inc. v. Koss Corp.*, No. 6:21-cv-00495 (W.D. Tex.); *Koss Corp. v. Skullcandy, Inc.*, No. 2:21-cv-00203 (D. Utah). Pet. xx–xxi; Paper 3, 1; Paper 5, 1; Paper 7, 2.

In addition, the parties indicate, and/or Board records show, that the following inter partes review proceedings challenging the '934 patent or patents related to the '934 patent are related matters: Apple Inc. v. Koss Corp., IPR2021-00255 (challenging U.S. Patent No. 10,298,451 B1) (final written decision, notice of appeal filed August 1, 2022); Bose Corp. v. Koss Corp., IPR2021-00297 (challenging U.S. Patent No. 10,368,155 B2) (final written decision, notice of appeal filed Aug. 1, 2022); Apple Inc. v. Koss Corp., IPR2021-00305 (challenging U.S. Patent No. 10,506,325 B1) (final written decision, notice of appeal filed Aug. 1, 2022); Apple Inc. v. Koss Corp., IPR2021-00381(challenging U.S. Patent No. 10,491,982 B1) (final written decision, notice of appeal filed Aug. 9, 2022); Bose Corp. v. Koss Corp., IPR2021-00546 (challenging U.S. Patent No. 10,206,025 B2) (institution denied Oct. 8, 2021); Apple Inc. v. Koss Corp., IPR2021-00592 (challenging U.S. Patent No. 10,469,934 B2) (settled/terminated, Aug. 2, 2022); Apple Inc. v. Koss Corp., IPR2021-00600 (challenging U.S. Patent No. 10,298,451 B1) (settled/terminated, Aug. 2, 2022); Bose Corp. v. Koss Corp., IPR2021-00612 (challenging U.S. Patent No. 10,206,025 B2) (final written decision filed Sept. 13, 2022); Apple Inc. v. Koss Corp., IPR2021-00626 (challenging U.S. Patent No. 10,206,025 B2) (institution denied Sept. 30, 2021); Apple Inc. v. Koss Corp., IPR2021-00679 (challenging U.S. Patent No. 10,506,325 B1) (institution denied Oct. 12, 2021); Apple Inc. v. Koss Corp., IPR2021-00686 (challenging U.S. Patent No. 10,491,982 B1)



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(institution denied Oct. 12, 2021); *Apple Inc. v. Koss Corp.*, IPR2021-00693 (challenging U.S. Patent No. 10,469,934 B2) (institution denied Oct. 13, 2021). Pet. xx; Paper 3, 1; Paper 5, 1; Paper 7, 2.

C. The '934 Patent

The '934 patent, titled "System with Wireless Earphones," issued November 5, 2019, with claims 1–62, and claims priority through several applications dating to April 7, 2008. Ex. 1001, codes (45), (54), (60), (63), 1:3–30, 18:2–25:23. The '934 patent relates to "a wireless earphone that comprises a transceiver circuit for receiving streaming audio from a data source, such as a digital audio player or a computer, over an ad hoc wireless network." *Id.* at 1:67–2:3. The '934 patent defines an "ad hoc wireless network" as "a network where two (or more) wireless-capable devices, such as the earphone and a data source, communicate directly and wirelessly, without using an access point." *Id.* at 3:3–6. Some embodiments include two discrete wireless earphones, one in each ear. *Id.* at 3:47–48.

Figure 2A of the '934 patent follows:

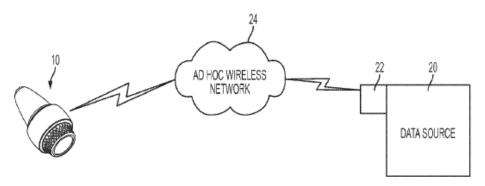


FIG. 2A

Figure 2A illustrates wireless earphone 10 connected via ad hoc wireless network 24 to data source 20. Ex. 1001, 4:26–28. "[D]ata source 20 may be a digital audio player (DAP), such as an [MP]3 player or an iPod, or any



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other suitable [DAP] device, such as a laptop or personal computer, that stores and/or plays digital audio files." *Id.* at 4:32–36. "When in range, the data source 20 may communicate with the earphone 10 via the ad hoc wireless network 24 using any suitable wireless communication protocol," including Wi-Fi, Bluetooth, and other communication protocols. *Id.* at 4:56–61.

In one embodiment, earphone 10 connects to network-enabled host server 40 via networks 30a, 42 so that host server 40 can transmit streaming digital audio to earphone 10. Ex. 1001, 5:56–62, Fig. 2D. Alternatively, host server 40 may transmit a network address to earphone 10 for streaming digital audio content server 70. *Id.* at 5:62–65, Fig. 2D. In this case, earphone 10 uses the received address to connect to content server 70 via networks 30a, 42 and receive digital audio from content server 70. *Id.* at 5:66–6:2. In one embodiment, content server 70 is an Internet radio station server. *Id.* at 6:3–4. In addition, content server 70 may stream digital audio received from data source 20 via networks 30b, 42. *Id.* at 6:7–12.

Figure 3 follows:



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