



US 20230232168A1

(19) **United States**(12) **Patent Application Publication**
QI et al.(10) **Pub. No.: US 2023/0232168 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **SYSTEMS AND METHODS FOR
SUPPRESSING SOUND LEAKAGE**No. 15/109,831, filed on Jul. 6, 2016, now Pat. No.
9,729,978, filed as application No. PCT/CN2014/
094065 on Dec. 17, 2014.(71) Applicant: **SHENZHEN SHOKZ CO., LTD.**,
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Jan. 6, 2014 (CN) 201410005804.0

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Shenzhen (CN)**Publication Classification**(21) Appl. No.: **18/188,491**(51) **Int. Cl.**
H04R 1/28 (2006.01)
H04R 1/34 (2006.01)
H04R 1/10 (2006.01)(22) Filed: **Mar. 23, 2023**(52) **U.S. Cl.**
CPC **H04R 1/2849** (2013.01); **H04R 1/345**
(2013.01); **H04R 1/10** (2013.01); **H04R**
2460/13 (2013.01)**Related U.S. Application Data**(63) Continuation-in-part of application No. 17/656,220,
filed on Mar. 23, 2022, now Pat. No. 11,622,212,
which is a continuation of application No. 17/075,
655, filed on Oct. 20, 2020, now Pat. No. 11,304,011,
which is a continuation-in-part of application No.
16/813,915, filed on Mar. 10, 2020, now Pat. No.
10,848,878, which is a continuation of application
No. 16/419,049, filed on May 22, 2019, now Pat. No.
10,616,696, which is a continuation of application
No. 16/180,020, filed on Nov. 5, 2018, now Pat. No.
10,334,372, which is a continuation of application
No. 15/650,909, filed on Jul. 16, 2017, now Pat. No.
10,149,071, which is a continuation of application(57) **ABSTRACT**

A bone conduction speaker includes a housing, a vibration board and a transducer. The transducer is located in the housing, and the vibration board is configured to contact with skin and pass vibration. At least one sound guiding hole is set on at least one portion of the housing to guide sound wave inside the housing to the outside of the housing. The guided sound wave interfaces with the leaked sound wave, and the interfacing reduces a sound pressure level of at least a portion of the leaked sound wave. A frequency of the at least a portion of the leaked sound wave is lower than 4000 Hz.

