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ZHANG et al.(10) **Pub. No.: US 2023/0232145 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **ACOUSTIC OUTPUT APPARATUS AND METHODS THEREOF**(71) Applicant: **SHENZHEN SHOKZ CO., LTD.**,
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ABSTRACT

The present disclosure provides an acoustic output apparatus. The acoustic output apparatus may include an acoustic output component and a supporting structure forming an acoustically open structure that allows the acoustic output component to acoustically communicate with the surroundings. The acoustic output component may include a plurality of acoustic drivers, each of which may be configured to output a sound with a frequency range. At least one of the acoustic drivers may include a magnetic system for generating a first magnetic field. The magnetic system may include a first magnetic component for generating a second magnetic field and at least one second magnetic component. A magnetic gap may be formed between the first magnetic component and the at least one second magnetic component. A magnetic field intensity of the first magnetic field in the magnetic gap may be greater than that of the second magnetic field in the magnetic gap.

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