

Title (en)  
PORTABLE WIRELESS LISTENING DEVICE

Title (de)  
TRAGBARES DRAHTLOSES ZUHÖRGERÄT

Title (fr)  
DISPOSITIF D'ÉCOUTE SANS FIL PORTABLE

Publication  
**EP 4258688 A3 20240320 (EN)**

Application  
**EP 23157342 A 20230217**

Priority  

- US 202263268356 P 20220222
- US 202217895019 A 20220824
- US 202217895025 A 20220824
- US 202217895028 A 20220824

Abstract (en)  
An earphone comprising: a device housing that defines an interior cavity within the device housing; an acoustic port formed through a wall of the device housing; an audio driver disposed within the device housing and aligned to emit sound through the acoustic port; a user input region disposed along an exterior surface of the device housing; a flex circuit disposed within the interior cavity, the flex circuit including a first portion bonded at a first location to an inner surface of the device housing directly beneath the user-input region, a second portion bonded at a second location to an inner surface of the device housing spaced apart from the first location, and a third portion extending between the first and second portions; a force pixel disposed within the interior cavity and mounted to the first portion of the flex circuit below the user input region; a plurality of touch pixels disposed within the interior cavity between the force pixel and the user input region; sensor control circuitry disposed within the interior cavity and mounted to the second portion of the flex circuit; and a wireless antenna disposed within the interior cavity defined by the device housing.

IPC 8 full level  
**H04R 1/10** (2006.01); **H04R 25/00** (2006.01)

CPC (source: EP)  
**H04R 1/1016** (2013.01); **H04R 1/1025** (2013.01); **H04R 1/1041** (2013.01); **H04R 1/1083** (2013.01); **H04R 25/603** (2019.05); **H04R 25/609** (2019.05); **H04R 2225/51** (2013.01); **H04R 2225/61** (2013.01); **H04R 2460/01** (2013.01); **H04R 2460/11** (2013.01); **H04R 2460/17** (2013.01)

Citation (search report)  

- [XAYI] CN 113810809 A 20211217 - HUAWEI TECH CO LTD
- [XI] US 2020100013 A1 20200326 - HARJEE NAHID [US], et al
- [Y] US 2019098390 A1 20190328 - CARINO MARC-ANGELO P [US], et al

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**EP 4258688 A2 20231011; EP 4258688 A3 20240320**

DOCDB simple family (application)  
**EP 23157342 A 20230217**