

Title (en)

DEVICE FOR DETECTING AIRBORNE SOUND FOR AUTOMOTIVE APPLICATIONS, METHOD FOR THE PRODUCTION THEREOF, AND AUTOMATED DRIVING SYSTEM COMPRISING SUCH A DEVICE

Title (de)

VORRICHTUNG ZUM DETEKTIEREN VON LUFTSCHALL FÜR AUTOMOBILE ANWENDUNGEN, VERFAHREN ZU DEREN HERSTELLUNG UND AUTOMATISIERTES FAHRSYSTEM UMFASSEND EINE DERARTIGE VORRICHTUNG

Title (fr)

DISPOSITIF DE DÉTECTION DU SON AÉRIEN POUR DES APPLICATIONS AUTOMOBILES, PROCÉDÉ DE PRODUCTION CORRESPONDANT, ET SYSTÈME DE CONDUITE AUTOMATIQUE COMPORTANT UN TEL DISPOSITIF

Publication

**EP 4241458 A1 20230913 (DE)**

Application

**EP 21798979 A 20211021**

Priority

- DE 102020213964 A 20201106
- EP 2021079181 W 20211021

Abstract (en)

[origin: WO2022096273A1] The invention relates to a device (AKS) for detecting airborne sound for automotive applications, comprising: an acoustic sensor (1); a protective grating (2) for securing the device (AKS) against penetration of coarser foreign bodies; an acoustically permeable, hydrophobic and/or lipophobic first diaphragm (5) which is located downstream of the protective grating (2) in the airflow direction (R) such that, under the action of jets of water into the opening (3a, 3b, 3c), the jets of water flow past the first diaphragm (5) and back out of the opening (3a, 3b, 3c); a sound channel (7) located in parallel with the axial axis (A), a length of the sound channel (7) being smaller than 10 mm, preferably smaller than 6 mm, particularly preferably smaller than 3 mm; and a circuit board (L) comprising components and the connections thereof for preprocessing analogue or digital signals of the acoustic sensor (1), the acoustic sensor (1) being located on one side of the circuit board (L).

IPC 8 full level

**H04R 1/08** (2006.01); **H04R 1/10** (2006.01); **H04R 1/34** (2006.01)

CPC (source: EP US)

**H04R 1/04** (2013.01 - US); **H04R 1/086** (2013.01 - EP US); **H04R 1/2876** (2013.01 - US); **H04R 1/345** (2013.01 - EP); **H04R 3/00** (2013.01 - US); **H04R 19/04** (2013.01 - US); **H04R 2201/003** (2013.01 - EP US); **H04R 2201/029** (2013.01 - EP); **H04R 2410/07** (2013.01 - EP); **H04R 2499/13** (2013.01 - EP US)

Citation (search report)

See references of WO 2022096273A1

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 MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**WO 2022096273 A1 20220512**; DE 102020213964 A1 20220512; DE 102020213964 B4 20230302; EP 4241458 A1 20230913; US 2024015429 A1 20240111

DOCDB simple family (application)

**EP 2021079181 W 20211021**; DE 102020213964 A 20201106; EP 21798979 A 20211021; US 202118252014 A 20211021