

Title (en)

VEHICLE LOUDSPEAKER SYSTEM AND VEHICLE STRUCTURE COMPRISING SUCH LOUDSPEAKER SYSTEM

Title (de)

FAHRZEUGLAUTSPRECHERSYSTEM UND FAHRZEUGSTRUKTUR MIT SOLCH EINEM LAUTSPRECHERSYSTEM

Title (fr)

SYSTÈME DE HAUT-PARLEUR ET STRUCTURE DE VÉHICULE COMPRENANT UN TEL SYSTÈME DE HAUT-PARLEUR

Publication

EP 3477629 A1 20190501 (EN)

Application

EP 17199171 A 20171030

Priority

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Abstract (en)

A vehicle loudspeaker system (10) comprises a loudspeaker device (20) comprising a driver (23) and a diaphragm (22), and which is configured to emit front sound from a first side of the diaphragm (22) to an inner space (IS) of the vehicle. The vehicle loudspeaker system (10) further comprises a communication channel (24) with a first terminal coupled to a back space (26) of the diaphragm facing a second side of the diaphragm (22) opposite the first side, and a second terminal adapted to be coupled to an opening (50) of a partition panel (30) dividing the inner space (IS) from an outside space (OS) of the vehicle for communicating back sound emitted from the second side of the diaphragm (22) to the outside space (OS) of the vehicle. A Helmholtz resonance absorber is configured to attenuate or absorb at least one noise frequency and comprises at least one cavity (27) and at least one connection (28) coupling the at least one cavity (27) with the communication channel (24).

IPC 8 full level

G10K 11/172 (2006.01); **H04R 1/28** (2006.01)

CPC (source: EP)

G10K 11/172 (2013.01); **H04R 1/2811** (2013.01); **H04R 1/2873** (2013.01); **H04R 2499/13** (2013.01)

Citation (applicant)

- EP 2941011 A1 20151104 - ALPINE ELECTRONICS INC [JP]
- DE 19804737 A1 19990812 - BAYERISCHE MOTOREN WERKE AG [DE]

Citation (search report)

- [XYI] US 2015036840 A1 20150205 - SULOWSKI ADAM [DE], et al
- [AD] EP 2941011 A1 20151104 - ALPINE ELECTRONICS INC [JP]
- [A] JP S63287296 A 19881124 - HONDA MOTOR CO LTD
- [Y] US 3529691 A 19700922 - WESEMANN FRED A
- [Y] US 2949163 A 19600816 - NORMAN FRIEDMAN
- [Y] US 2005163334 A1 20050728 - SUPRAPMO SUSIMIN [SG], et al
- [A] EP 2658280 A1 20131030 - ALPINE ELECTRONICS INC [JP]
- [A] PIOTR MIODUSZEWSKI: "Speed influence on tire/road noise inside a passenger car", APPLIED ACOUSTICS., 27 August 2000 (2000-08-27), GB, pages 1 - 4, XP055465264, ISSN: 0003-682X

Cited by

CN111923843A; WO2021131705A1

Designated contracting state (EPC)

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Designated extension state (EPC)

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