Title (en)

AN IN-THE-EAR HEARING AID HAVING COMBINED ANTENNAS

Title (de

IN-OHR-HÖRGERÄT MIT KOMBINIERTEN ANTENNEN

Title (fr)

PROTHÈSE AUDITIVE INTRA-AURICULAIRE AYANT DES ANTENNES COMBINÉES

Publication

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Application

EP 21172399 A 20150721

Priority

- EP 21172399 A 20150721
- EP 18190641 A 20150721
- EP 15177659 A 20150721

Abstract (en)

Disclosed is an in-the-ear hearing aid, the hearing aid having a first end and a second end, the hearing aid comprising a microphone configured to receive an audio signal, a printed circuit board comprising a processing unit configured to process the audio signal for compensating a hearing loss of a user, a receiver configured to transmit the processed audio signal, a battery having a first side and a second side, where the battery is provided at the second end of the hearing aid, one or more wireless communication units for wireless communication, a first antenna for emission and/or reception of an electromagnetic field being interconnected with one of the one or more wireless communication units, where the first antenna is provided at the second end of the hearing aid, and a second antenna for emission and/or reception of an electromagnetic field being interconnected with one of the one or more wireless communication units, where the second antenna is provided at the second end of the hearing aid, wherein the second antenna is provided at the second end of the battery, and wherein the first antenna is fed from the printed circuit board at the first side of the battery.

IPC 8 full level

H04R 25/00 (2006.01)

CPC (source: EP)

H04R 25/554 (2013.01); H04R 2225/49 (2013.01); H04R 2225/51 (2013.01)

Citation (search report)

- [A] EP 2200119 A2 20100623 STARKEY LAB INC [US]
- [A] US 2009315787 A1 20091224 SCHAETZLE ULRICH [DE]
- [A] WO 2014086392 A1 20140612 PHONAK AG [CH]
- [A] ANONYMOUS: "ReSound Linx2", 20 July 2015 (2015-07-20), pages 1 73, XP055831048, Retrieved from the Internet <URL:https://register.epo.org/application?number=EP15177659&Ing=en&tab=doclist> [retrieved on 20210810] & GAL JEAN-LUC ET AL: "Minutes of hearing of witness in opposition against European Patent 3 122 071 B1", 10 August 2021 (2021-08-10), pages 1 23, XP055831085, Retrieved from the Internet <URL:https://register.epo.org/application?number=EP15177659&Ing=en&tab=doclist> [retrieved on 20210810]
- [A] JASON GALSTER: "Making sense of modern wireless hearing aid technologies", ENT AND AUDIOLOGY NEWS, NOVEMBER/ DECEMBER 2014, VOL 23 NO 5, 1 November 2014 (2014-11-01), pages 1 - 2, XP055666090, Retrieved from the Internet <URL:https://www.entandaudiologynews.com/media/4032/entnd14-galster-new.pdf> [retrieved on 20200206]

Designated contracting state (EPC)

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DOCDB simple family (publication

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DOCDB simple family (application)

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