

Title (en)  
Behind-the-ear hearing aid with external, optical microphone

Title (de)  
Hinter-dem-Ohr-Hörgerät mit externem, optischem Mikrofon

Title (fr)  
Appareil auditif derrière l'oreille doté d'un microphone optique externe

Publication  
**EP 1909536 A3 20100519 (DE)**

Application  
**EP 07115284 A 20070830**

Priority  
DE 102006046700 A 20061002

Abstract (en)  
[origin: EP1909536A2] The hearing aid has a housing (11), and a signal processing device arranged in the housing and comprising an opto-electrical converter. An optical microphone (13) is arranged in an inner side of the housing and placed in the auricle (10) or in the auditory canal (14), where the microphone is fastened to an otoplastic. The microphone is connected with the signal processing device by using an optical waveguide (17) for optical signal transmission, where the waveguide is a fiber optical cable. A sound tube for transmission of sound to the auditory canal is attached to the housing. An independent claim is also included for a method for receiving sound for a behind-the-ear-hearing aid.

IPC 8 full level  
**H04R 25/00** (2006.01); **H04R 23/00** (2006.01)

CPC (source: EP US)  
**H04R 23/008** (2013.01 - EP US); **H04R 25/00** (2013.01 - EP US); **H04R 2225/0216** (2019.04 - EP US)

Citation (search report)

- [Y] DE 102005013833 B3 20060614 - SIEMENS AUDIOLOGISCHE TECHNIK [DE]
- [Y] WO 9843567 A1 19981008 - RESOUND CORP [US]
- [A] US 2006107744 A1 20060525 - LI GUANN-PYNG [US], et al
- [A] US 2006189841 A1 20060824 - PLUVINAGE VINCENT [US]
- [A] DE 3508830 A1 19860918 - BOSCH GMBH ROBERT [DE]

Cited by  
US8625830B2; WO2010092193A3; WO2009083372A3; DE102013000848A1; DE202013012089U1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK RS

DOCDB simple family (publication)  
**EP 1909536 A2 20080409; EP 1909536 A3 20100519; EP 1909536 B1 20110720**; AT E517521 T1 20110815; DE 102006046700 A1 20080410; DK 1909536 T3 20111024; US 2008107292 A1 20080508; US 8243971 B2 20120814

DOCDB simple family (application)  
**EP 07115284 A 20070830**; AT 07115284 T 20070830; DE 102006046700 A 20061002; DK 07115284 T 20070830; US 90646907 A 20071002