

Title (en)  
A hearing aid with improved localization

Title (de)  
Hörgerät mit verbesserter Ortung

Title (fr)  
Prothèse auditive avec localisation améliorée

Publication  
**EP 2611218 A1 20130703 (EN)**

Application  
**EP 12197705 A 20121218**

Priority  
• DK PA201170759 A 20111229  
• EP 11196089 A 20111229  
• US 201213352133 A 20120117  
• EP 12197705 A 20121218

Abstract (en)  
A new hearing aid is provided with improved preservation of spatial cues of an incoming sound signal, the hearing aid comprising a BTE hearing aid housing to be worn behind the pinna of a user, at least one BTE sound input transducer for conversion of acoustic sound into an audio sound signal, a processor configured to generate a hearing loss compensated output signal based on the audio sound signal, a sound signal transmission member for transmission of a sound signal from a sound output in the BTE hearing aid housing at a first end of the sound signal transmission member to the ear canal of the user at a second end of the sound signal transmission member, an earpiece configured to be inserted in the ear canal of the user for fastening and retaining the sound signal transmission member in its intended position in the ear canal of the user, and an output transducer for conversion of the hearing loss compensated output signal to an auditory output signal that can be received by the human auditory system, an ITE microphone housing accommodating at least one ITE microphone and configured to be positioned in the outer ear of the user for fastening and retaining the at least one ITE microphone in its intended position, and further comprising at least one adaptive cue filter, each of which having an input that is provided with an output signal from a respective one of the at least one BTE sound input transducer, and the filter coefficients of which are adapted so that the difference between an output of the at least one ITE microphone and a combined output of the at least one adaptive cue filter is minimized.

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

CPC (source: EP US)  
**H04R 25/407** (2013.01 - EP US); **H04R 25/453** (2013.01 - EP); **H04R 2225/0216** (2019.04 - EP US); **H04R 2430/03** (2013.01 - EP); **H04S 2420/01** (2013.01 - EP)

Citation (search report)  
• [A] EP 2124483 A2 20091125 - STARKEY LAB INC [US]  
• [A] EP 1594344 A2 20051109 - PHONAK AG [CH]  
• [A] EP 2088802 A1 20090812 - OTICON AS [DK]  
• [A] EP 1414268 A2 20040428 - SIEMENS AUDIOLOGISCHE TECHNIK [DE]

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EP2928213A1; US9538296B2; US2017078803A1; CN110996238A; CN114586378A; CN116567477A; EP3038381A1; JP2017539181A; EP2849462A1; US2015078600A1; EP3214857A1; US9148735B2; US9774960B2; US9148733B2; US9100762B2; US9432778B2; US9338561B2; US9843859B2; WO2016102300A1; WO2021015938A1; US10182298B2; US10959026B2; US11510013B2; EP3116240B1

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

DOCDB simple family (publication)  
**EP 2611218 A1 20130703; EP 2611218 B1 20150311**

DOCDB simple family (application)  
**EP 12197705 A 20121218**