

Title (en)
A HEARING AID HAVING COMBINED ANTENNAS

Title (de)
HÖRGERÄT MIT KOMBINIERTEN ANTENNEN

Title (fr)
PROTHÈSE AUDITIVE À ANTENNES COMBINÉES

Publication
EP 3503589 B1 20220720 (EN)

Application
EP 19157184 A 20150622

Priority
• EP 19157184 A 20150622
• EP 15001843 A 20150622

Abstract (en)
[origin: EP3110170A1] A hearing aid having a hearing aid housing, the hearing aid housing having a first end and a second end, is provided, comprising a microphone configured to receive an audio signal, a processing unit configured to process the audio signal for compensating a hearing loss of a user, a speaker for providing the processed audio signal to the user, a battery, one or more wireless communication units for wireless communication, a first antenna and a second antenna for emission and/or reception of an electromagnetic field being interconnected with each one of the one or more wireless communication units. The battery is provided closer to a second end of the hearing aid than to a first end of the hearing aid, and the second antenna is provided between the battery, such as between a center axis of the battery, and the second end of the hearing aid. It is an advantage of the hearing aid that a first antenna and a second antenna are provided in the hearing aid, increasing the wireless communication capabilities of the hearing aid.

IPC 8 full level
H04R 25/00 (2006.01)

CPC (source: EP)
H04R 25/554 (2013.01); **H04R 25/552** (2013.01); **H04R 2225/021** (2013.01); **H04R 2225/31** (2013.01); **H04R 2225/51** (2013.01)

Citation (opposition)
Opponent : **Widex A/S**
• US 2011194717 A1 20110811 - HANSEN JACOB HOLDT [DK], et al
• US 2013273862 A1 20131017 - FRENZER MICHAEL W [US], et al
• US 2013188803 A1 20130725 - SHAANAN GAD [US], et al
• US 2009285426 A1 20091119 - BOGUSLAVSKIJ MIHAIL [DE]
• US 2008205678 A1 20080828 - BOGUSLAVSKIJ MIHAIL [DE], et al
• EP 2498514 A1 20120912 - NXP BV [NL]
• CH 691944 A5 20011130 - PHONAK COMM AG [CH]
• US 2010054513 A1 20100304 - BALLY UWE [DE], et al
• EP 1973379 A2 20080924 - STARKEY LAB INC [US]
• US 2012093324 A1 20120419 - SINASI OEZDEN [DK]
• US 2009315787 A1 20091224 - SCHAETZLE ULRICH [DE]
• EP 2403273 A1 20120104 - STARKEY LAB INC [US]
• WO 2014086392 A1 20140612 - PHONAK AG [CH]
• US 2009296967 A1 20091203 - MULLENBORN MATTHIAS [DK], et al
Opponent : **Oticon A/S, Widex A/S**
• US 2009231204 A1 20090917 - SHAKER GEORGE [CA], et al
• EP 2835863 A1 20150211 - OTICON AS [DK]
• EP 2026406 A1 20090218 - OTICON AS [DK]

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

DOCDB simple family (publication)
EP 3110170 A1 20161228; EP 3110170 B1 20190220; DK 3110170 T3 20190423; DK 3503589 T3 20220912; EP 3503589 A1 20190626; EP 3503589 B1 20220720

DOCDB simple family (application)
EP 15001843 A 20150622; DK 15001843 T 20150622; DK 19157184 T 20150622; EP 19157184 A 20150622