

Title (en)
A hearing aid with improved localization

Title (de)
Hörgerät mit verbesserter Lokalisation

Title (fr)
Prothèse auditive avec une meilleure localisation

Publication
EP 2750410 A1 20140702 (EN)

Application
EP 12199720 A 20121228

Priority
EP 12199720 A 20121228

Abstract (en)
A method of determining parameters of a BTE hearing aid having at least one ITE microphone and at least one BTE microphone, the method includes: determining Head-Related Transfer functions $HRTF_l(f)$; determining a hearing aid related transfer function $H_{l,i}$, i IEC f of a i th microphone of the at least one ITE microphone for direction l ; determining a hearing aid related transfer functions $H_{l,j}$, j BTEC f of a j th microphone of the at least one BTE microphone; determining transfer functions G_i IEC f of a i th cue filter of at least one cue filter filtering audio sound signals of the at least one ITE microphone; and determining transfer functions G_j BTEC f of a j th cue filter of the at least one cue filter filtering audio sound signals of the at least one BTE microphone; wherein the transfer functions G_i IEC f and the transfer functions G_j BTEC f are determined using a processing unit based on equation: $\min G_i \text{ IEC } f, G_i \text{ BTEC } f \text{ ## } l = 0 \text{ L } - 1 \text{ W } l \text{ ## } W f \text{ #c } HRTF_l f - \sum_i \text{ #c } G_i \text{ IEC } f \text{ #c } H_{l,i} \text{ IEC } f - j G_j \text{ BTEC } f H_{l,j} \text{ BTEC } f \text{ #c } p$.

IPC 8 full level
H04R 25/00 (2006.01); **H04S 7/00** (2006.01)

CPC (source: EP US)
H04R 25/70 (2013.01 - EP US); **H04R 25/407** (2013.01 - EP); **H04R 25/453** (2013.01 - EP); **H04R 2225/0216** (2019.04 - EP US); **H04S 2420/01** (2013.01 - EP)

Citation (search report)
• [I] US 2004136541 A1 20040715 - HAMACHER VOLKMAR [DE], et al
• [I] EP 2088802 A1 20090812 - OTICON AS [DK]
• [A] EP 1594344 A2 20051109 - PHONAK AG [CH]
• [T] US 2009097681 A1 20090416 - PURIA SUNIL [US], et al

Cited by
EP3185589A1; US10375485B2; EP3038381A1; US9774960B2

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

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