

Title (en)

METHOD FOR MONITORING AN IN-EAR PLACEMENT OF A HEARING DEVICE

Title (de)

VERFAHREN ZUM ÜBERWACHEN EINER IN-OHR-PLATZIERUNG EINES HÖRGERÄTS

Title (fr)

PROCÉDÉ DE SURVEILLANCE DE PLACEMENT INTRA-AURICULAIRE D'UN DISPOSITIF AUDITIF

Publication

EP 4333463 A1 20240306 (EN)

Application

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Priority

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Abstract (en)

The invention relates to a method for monitoring an in-ear placement of a hearing device (1) which is configured to be worn at least partially in an ear canal, the hearing device (1) comprising- a microphone (20) for obtaining an audio signal from received ambient sound, and- a processing unit configured to process the audio signal, and- a receiver (30) for outputting sound to the ear canal based on the processed audio signal,- the processing unit (100) configured to apply a signal filter representing a feedback path to the audio signal and to subtract a filtered signal from the audio signal, and the processing unit (100) further configured to apply a gain model, the method comprising the steps of:- applying the signal filter, and- setting coefficients of a reference signal filter to the signal filter, wherein the coefficients are stored in the hearing device (1) and the reference signal filter represents a reference feedback path (H_o) which is associated with a target in-ear placement of the hearing device (1), and- applying a gain model to generate feedback which causes the receiver (30) to output a feedback-squealing, and- repeatedly determining an actual feedback path ($H(z)$) associated with an actual in-ear placement of the hearing device (1) and comparing the actual feedback path ($H(z)$) with the reference feedback path (H_o), until a) the actual feedback path ($H(z)$) equals the reference feedback path (H_o) within a predetermined margin, or b) until a predetermined timeout has elapsed.

IPC 8 full level

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CPC (source: EP)

H04R 25/305 (2013.01); **H04R 25/453** (2013.01); **H04R 2460/15** (2013.01)

Citation (applicant)

- EP 1624719 A2 20060208 - PHONAK AG [CH]
- US 6134329 A 20001017 - GAO SHAWN X [US], et al

Citation (search report)

- [X] US 2013170660 A1 20130704 - KRISTENSEN MICHAEL SMED [DK], et al
- [X] WO 2010049543 A2 20100506 - PHONAK AG [CH], et al
- [A] US 2021204074 A1 20210701 - RECKER KARRIE [US], et al
- [A] US 2021258702 A1 20210819 - THIEDE THILO VOLKER [DK], et al

Designated contracting state (EPC)

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