

Title (en)

Hearing aid with cancellation of acoustic feedback.

Title (de)

Hörhilfegerät mit Unterdrückung der akustischen Rückkopplung.

Title (fr)

Prothèse auditive avec suppression du couplage acoustique.

Publication

EP 0656737 A1 19950607 (DE)

Application

EP 94117510 A 19941107

Priority

- EP 94117510 A 19941107
- EP 93118186 A 19931110

Abstract (en)

The acoustomechanical disturbing feedback in a hearing aid having an amplifying filter section is compensated by means of a compensator (15). In this case, the signals are joined in the frequency range at the compensator (15) and preferably also in the amplifying filter section (5). For this purpose, time range/frequency range transformation units (20, 28), or corresponding back-transformation units (26, 24) are connected downstream of a subtraction unit (13) to which the compensator signal is coupled. <IMAGE>

Abstract (de)

An einem Hörhilfegerät mit Verstärkungsfilterstrecke wird die akustisch-mechanische Störrückkopplung mittels eines Kompensators (15) kompensiert. Dabei erfolgt am Kompensator (15) und vorzugsweise auch an der Verstärkungsfilterstrecke (5) die Signalverbindung im Frequenzbereich, wozu einer Differenzbildungseinheit (13), woran das Kompensatorsignal eingekoppelt wird, Zeitbereich/Frequenzbereich-Transformationseinheiten (20, 28) nachgeschaltet sind bzw. entsprechende Rücktransformationseinheiten (26, 24). <IMAGE>

IPC 1-7

H04R 25/00; **H04R 3/02**

IPC 8 full level

H04R 25/00 (2006.01)

CPC (source: EP US)

H04R 25/453 (2013.01 - EP US); **H04R 25/505** (2013.01 - EP US)

Citation (search report)

- [A] EP 0252205 A2 19880113 - ANTIN MARK [US]
- [A] EP 0508392 A2 19921014 - KLIPPEL WOLFGANG [DE]
- [A] EP 0282335 A2 19880914 - MINNESOTA MINING & MFG [US]
- [A] WO 9320668 A1 19931014 - GN DANAVOX AS [DK], et al
- [AD] S. M. KUO UND S. VOEPEL: "INTEGRATED FREQUENCY-DOMAIN DIGITAL HEARING AID WITH THE LAPPED TRANSFORM", ELECTRONICS LETTERS., vol. 28, no. 23, 5 November 1992 (1992-11-05), ENAGE GB, pages 2117 - 2118, XP000315938
- [AD] JAMES M. KATES: "FEEDBACK CANCELLATION IN HEARING AIDS: RESULTS FROM A COMPUTER SIMULATION", IEEE TRANSACTIONS ON SIGNAL PROCESSING, vol. 39, no. 3, March 1991 (1991-03-01), NEW YORK US, pages 553 - 562, XP000224129

Cited by

EP1469702A3; FR2853804A1; DE19957128C1; DE19922133A1; DE19922133C2; US7324651B2; US6650124B2; US6628794B1; WO0195578A3

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AT CH DE DK ES FR GB GR IT LI NL SE

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