

Title (en)

Method for electronically enlarging the distance between two acoustical/electrical transducers and hearing aid apparatus

Title (de)

Verfahren zum Elektronischerweitern des Abstands zwischen zwei akustischen/elektrischen Wandlern und einem Hörhilfegerät

Title (fr)

Méthode pour élargir électroniquement la distance entre deux transducteurs acoustiques/électroniques et un appareil de prothèse auditive

Publication

**EP 0802699 A3 19980225 (EN)**

Application

**EP 97112125 A 19970716**

Priority

EP 97112125 A 19970716

Abstract (en)

[origin: EP0802699A2] For beam forming acoustical signals the phase difference of the output signals of two acoustical/electrical transducers is determined (27) and is multiplied by a factor (30). One of the two output signals of the at least two transducers is phase shifted by an amount according to the multiplication result. This phase shifted signal and the signal of the second transducer are led to a signal processing unit, wherein beam forming on these at least two signals is performed. Thereby, it becomes possible to perform beam forming as if the transducers were mutually distant by more than they physically are. <IMAGE>

IPC 1-7

**H04R 1/00**

IPC 8 full level

**H04R 3/00** (2006.01); **H04R 25/00** (2006.01)

CPC (source: EP KR)

**H04R 3/00** (2013.01 - KR); **H04R 25/407** (2013.01 - EP); **H04R 25/505** (2013.01 - EP)

Citation (search report)

- [XAY] EP 0652686 A1 19950510 - AT & T CORP [US]
- [XAY] EP 0557166 A1 19930825 - ALCATEL RADIOTELEPHONE [FR]
- [Y] US 4751738 A 19880614 - WIDROW BERNARD [US], et al
- [A] JP H0579899 A 19930330 - ONO SOKKI CO LTD & PATENT ABSTRACTS OF JAPAN vol. 17, no. 412 (P - 1583) 30 July 1993 (1993-07-30)
- [XAY] Y.KANEDA AND M.TOHYAMA: "NOISE SUPPRESSION SIGNAL PROCESSING USING 2-POINT RECEIVED.", ELECTRONICS & COMMUNICATIONS IN JAPAN, vol. 67, no. 12, December 1984 (1984-12-01), SILVER SPRING , MARYLAND , U.S.A., pages 19 - 28, XP002050302

Cited by

US6751325B1; GB2575491A; US2011158426A1; DE102010055476B4; EP1035752A1; AU758366B2; EP1351544A3; EP1916872A3; DE102009052539B4; DE102010023615B4; US6947570B2; WO0152596A3; WO2005109951A1; US6987856B1; US7502479B2; US6522756B1; US8275147B2; US7409068B2; US8565445B2; US8638952B2; US7206423B1; US8103030B2; WO0054553A1; WO0019770A1; WO0187011A3

Designated contracting state (EPC)

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**EP 0802699 A2 19971022; EP 0802699 A3 19980225**; AT E218025 T1 20020615; AU 749652 B2 20020627; AU 7928198 A 19990210; CA 2296414 A1 19990128; CA 2296414 C 20050315; CN 1267444 A 20000920; DE 69805526 D1 20020627; DE 69805526 T2 20021128; DK 0997055 T3 20020722; EP 0997055 A1 20000503; EP 0997055 B1 20020522; IL 133999 A0 20010430; IL 133999 A 20040328; JP 2001510975 A 20010807; KR 20010021877 A 20010315; NZ 502350 A 20021025; TR 200000119 T2 20000522; WO 9904598 A1 19990128

DOCDB simple family (application)

**EP 97112125 A 19970716**; AT 98929585 T 19980714; AU 7928198 A 19980714; CA 2296414 A 19980714; CN 98808183 A 19980714; DE 69805526 T 19980714; DK 98929585 T 19980714; EP 98929585 A 19980714; IB 9801069 W 19980714; IL 13399998 A 19980714; JP 2000503683 A 19980714; KR 20007000441 A 20000114; NZ 50235098 A 19980714; TR 200000119 T 19980714