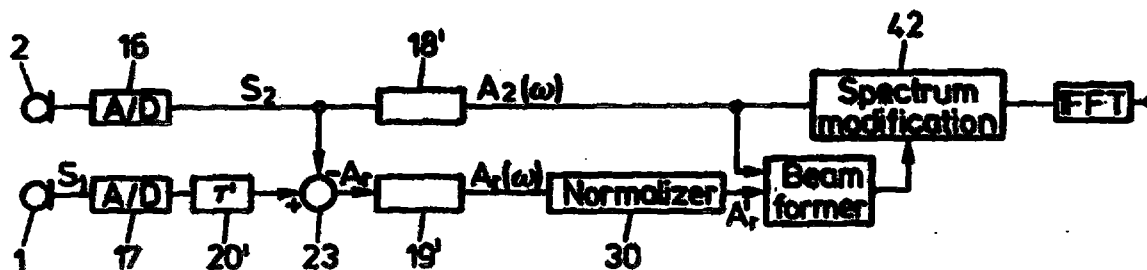




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H04R 3/00, 25/00	A1	(11) International Publication Number: WO 99/09786 (43) International Publication Date: 25 February 1999 (25.02.99)
<p>(21) International Application Number: PCT/IB98/00889</p> <p>(22) International Filing Date: 8 June 1998 (08.06.98)</p> <p>(30) Priority Data: 97114413.4 20 August 1997 (20.08.97) EP (34) Countries for which the regional or international application was filed: CH et al.</p> <p>(71) Applicant (for all designated States except US): PHONAK AG [CH/CH]; Laubisrüttistrasse 28, CH-8712 Stäfa (CH).</p> <p>(72) Inventors; and (75) Inventors/Applicants (for US only): MAISANO, Joseph [IT/CH]; Rue Grise Pierre 3, CH-2000 Neuchâtel (CH). HOTTINGER, Werner [CH/CH]; Chemin Trois Portes 65, CH-2003 Neuchâtel (CH).</p> <p>(74) Agent: TROESCH SCHEIDEGGER WERNER AG; Siewerdstrasse 95, CH-8050 Zürich (CH).</p>	<p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p>Published <i>With international search report.</i></p>	

(54) Title: A METHOD FOR ELECTRONICALLY BEAM FORMING ACOUSTICAL SIGNALS AND ACOUSTICAL SENSOR APPARATUS



(57) Abstract

A predetermined characteristic of amplification in dependency of the direction (θ) from which acoustical signals are received at two spaced-apart acoustical/electrical transducers (1, 2) is formed in that repetitively a mutual delay signal (A_{10}) is determined from the output signals of the transducers and according to the reception delay at the transducers, one (S_1) of the output signals is filtered, thereby the filtering transfer characteristic is controlled in dependency of the mutual delay signal (A_{12}). The output signal of the filtering (14) is exploited as electrical reception signal (S_r).