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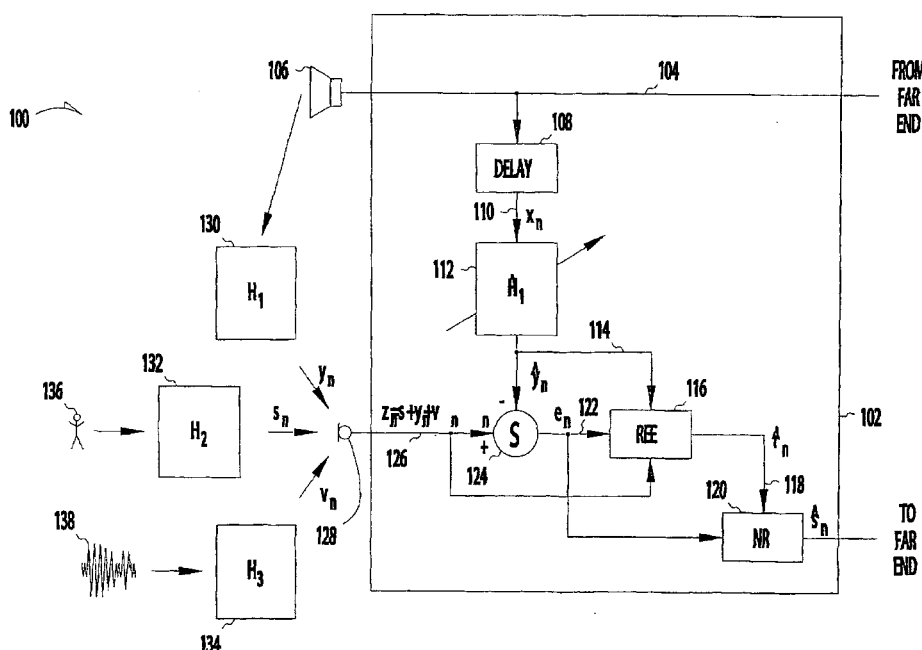
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09/663,748 15 September 2000 (15.09.2000) US</p> <p>(71) Applicant (for all designated States except US): INTEL CORPORATION [US/US]; 2200 Mission College Boulevard, Santa Clara, CA 95052 (US).</p> <p>(72) Inventor; and</p> <p>(75) Inventor/Applicant (for US only): DEISHER, Michael, E. [US/US]; 2665 N.E. Anna Avenue, Hillsboro, OR 97124 (US).</p> | <p>(74) Agent: VIKSNINS, Ann, S.; Schwegman, Lunberg, Woessner & Kluth, P.A., P.O. Box 2938, Minneapolis, MN 55402 (US).</p> <p>(81) Designated States (<i>national</i>): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.</p> <p>(84) Designated States (<i>regional</i>): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, 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, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).</p> <p>Published:
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(54) Title: RESIDUAL ECHO ESTIMATION FOR ECHO CANCELLATION



(S7) Abstract: Real and imaginary components of the discrete Fourier transform (DTF) of the residual echo in an acoustic echo cancellation system are separately estimated using mapping functions derived without an assumption of statistical independence between separate components of a near-end microphone input signal. The residual echo estimator calculates the real and imaginary components using an approximation of the microphone input signal without the echo. A different approximation is used depending on whether the near-end talker and/or the far-end talker are talking.



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