

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 January 2004 (29.01.2004)

PCT

(10) International Publication Number
WO 2004/010665 A3

(51) International Patent Classification⁷: **H04L 25/03**

(21) International Application Number:
PCT/US2003/022594

(22) International Filing Date: 18 July 2003 (18.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/199,159 18 July 2002 (18.07.2002) US
10/199,158 18 July 2002 (18.07.2002) US

(71) Applicant: **QUALCOMM INCORPORATED** [US/US];
5775 Morehouse Drive, San Diego, CA 92121 (US).

(72) Inventors: **JAYARAMAN, Srikant**; 1254 Pacific Beach Drive, #1, San Diego, CA 92109 (US). **FERNANDEZ CORBATON, Ivan Jesus**; 1033 Diamond Street, San Diego, CA 92109 (US). **SMEE, John, E.**; 5340 Toscana Way, #F406, San Diego, CA 92122 (US).

(74) Agents: **WADSWORTH, Philip, R.** et al.; Qualcomm Incorporated, 5775 Morehouse Drive, San Diego, CA 92121 (US).

(81) Designated States (*national*): 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, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

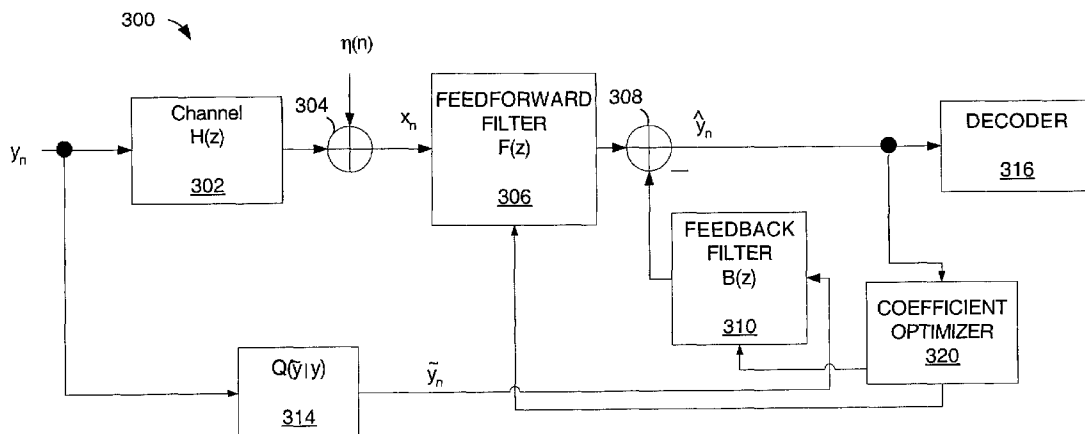
Published:

— with international search report

(88) Date of publication of the international search report:
17 June 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND APPARATUS FOR HYBRID DECISION FEEDBACK EQUALIZATION



(57) Abstract: A method and apparatus for a decision feedback equalizer wherein a correction term is used to compensate for slicer errors, thus avoiding error propagation. Filter coefficients for the equalizer are selected so as to minimize a cost function for the equalizer, including a correction term as a function of the energy of the filter coefficients. The equalizer includes a coefficient generator responsive to the correction term. One embodiment estimates a transmitted symbol from a received sample as a function of Signal-to-Interference and Noise Ratio (SINR) of the received sample. The received sample is quantized and mapped to a region of a grid overlaid on the transmitted symbol constellation. The region may correspond to a symbol estimate value or may be processed further to obtain a symbol estimate value.

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