

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
6 March 2008 (06.03.2008)

PCT

(10) International Publication Number
WO 2008/027531 A2

(51) International Patent Classification:
H04J 1/05 (2006.01)

(74) Agents: **POSZ, David, G.** et al.; Posz Law Group, PLC,
12040 South Lakes Drive, Suite 101, Reston, VA 20191
(US).

(21) International Application Number:
PCT/US2007/019163

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(22) International Filing Date: 31 August 2007 (31.08.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/841,528 1 September 2006 (01.09.2006) US

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

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

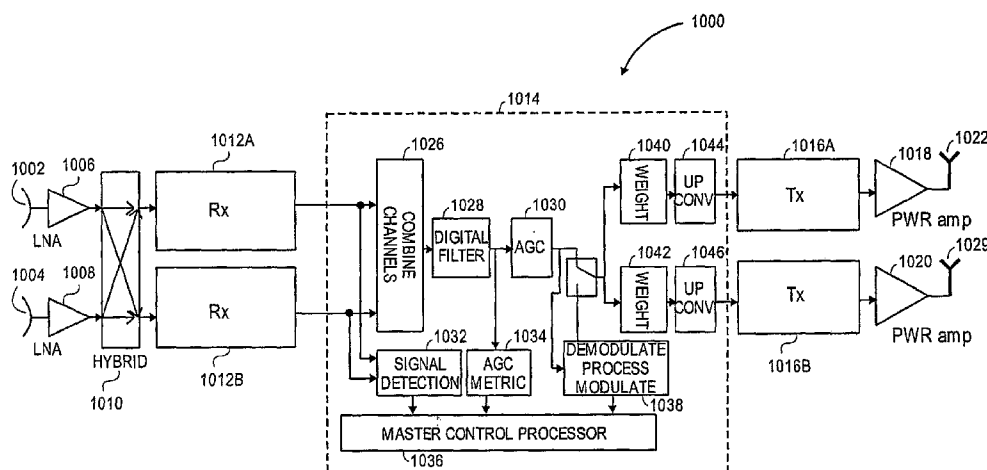
(72) Inventors; and

(75) Inventors/Applicants (for US only): **PROCTOR, James, A., Jr.** [US/US]; c/o QUALCOMM Incorporated, 5775 Morehouse Drive, San Diego, CA 92121 (US). **GAINEY, Kenneth, M.** [US/US]; c/o QUALCOMM Incorporated, 5775 Morehouse Drive, San Diego, CA 92121 (US). **OTTO, James, C.** [US/US]; 911 Harbor City Blvd., Melbourne, FL 32935 (US).

Published:

— without international search report and to be republished upon receipt of that report

(54) Title: REPEATER HAVING DUAL RECEIVER OR TRANSMITTER ANTENNA CONFIGURATION WITH ADAPTATION FOR INCREASED ISOLATION



(57) Abstract: A repeater for a wireless communication network includes a reception antenna and first and second transmission antennas. The repeater also includes a weighting circuit which applies a weight to at least one of first and second signals on first and second transmission paths coupled to the first and second transmission antennas respectively, and a control circuit configured to control the weighting circuit in accordance with an adaptive algorithm to thereby increase isolation between a reception path coupled to the reception antenna and the first and second transmission paths.