(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
3 January 2008 (03.01.2008)

PCT

(10) International Publication Number
WO 2008/003087 A2

(51) International Patent Classification:
H04L 1/00 (2006.01) *H04L 27/26* (2006.01)

(21) International Application Number:
PCT/US2007/072538

(22) International Filing Date: 29 June 2007 (29.06.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/818,223 29 June 2006 (29.06.2006) US

(71) Applicant *(for all designated States except US)*: **QUALCOMM Incorporated** [US/US]; Attn: International Ip Administration, 5775 Morehouse Drive, San Diego, California 92121 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **XU, Hao** [CN/US]; 8840 Costa Verde Boulevard, #3321, San Diego, California 92122 (US). **MALLADI, Durga**; 11983 Briarleaf Way, San Diego, California 92128 (US). **KIM, Byoung-hoon** [KR/US]; 8775 Costa Verde Boulevard, #912, San Diego, California 92122 (US).

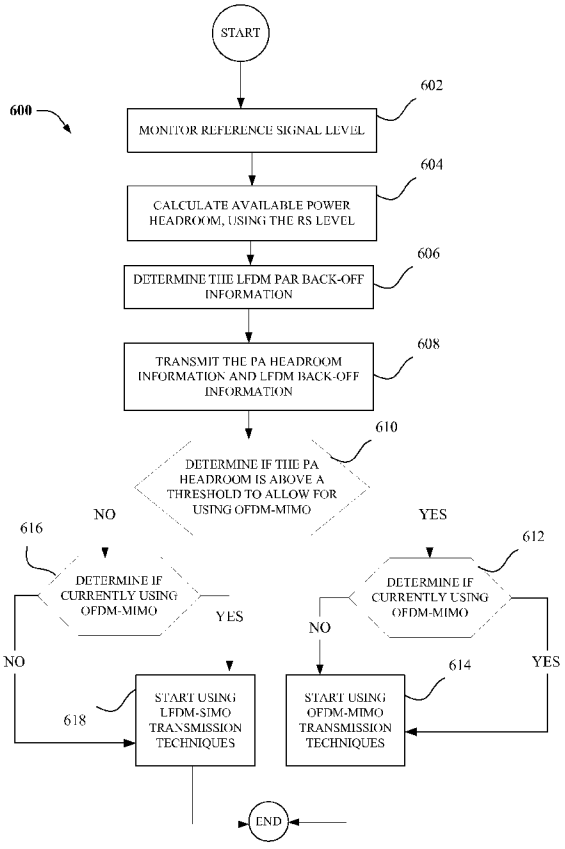
(74) Agent: **BACHAND, Richard A.**; 5775 Morehouse Drive, San Diego, California 92121 (US).

(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.

(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,

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR SELECTION MECHANISM BETWEEN OFDM-MIMO AND LFDM-SIMO



(57) Abstract: Systems and methodologies are described that facilitate switching between various combinations of MIMO, SIMO, SISO and OFDM, LFDM and IFDM. According to various aspects, a method for a wireless communication network is provided that includes: receiving a first set of data information, wherein the first set of information comprising a first value, determining if the first value is above a threshold and transmitting an indication to switch to using a first transmission technique if determined that the first value is above the threshold.

WO 2008/003087 A2

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).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

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

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.