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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
13 September 2007 (13.09.2007)

PCT

(10) International Publication Number
WO 2007/103822 A3

(51) International Patent Classification:
H04Q 7/32 (2006.01) *H04Q 7/38* (2006.01)

(21) International Application Number:
PCT/US2007/063227

(22) International Filing Date: 2 March 2007 (02.03.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/367,498 2 March 2006 (02.03.2006) 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)*: **BHATTACHARJEE, Supratik** [IN/US]; 7688 Marker Road, San Diego, California 92130 (US). **AMERGA, Messay** [ET/US]; 8929 Lombard Place, #119, San Diego, California 92122 (US). **DONG, Brian** [US/US]; 1643 6th Avenue, #209, San Diego, California 92101 (US). **SINGH, Gurdeep** [US/US]; 11899 Westview Parkway, San Diego, California 92126 (US).

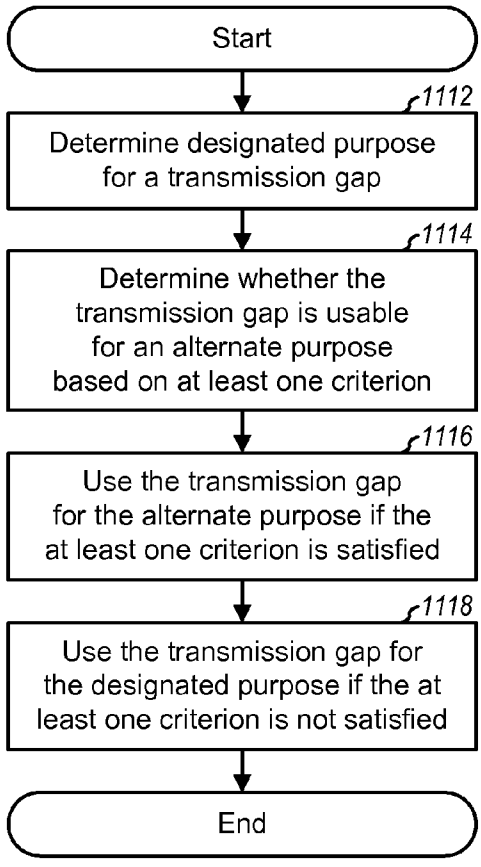
(74) Agents: **OGROD, Gregory D.** et al.; Attn: International Ip Administration, 5775 Morehouse Drive, San Diego, Califonia 92121 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, 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, 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,

[Continued on next page]

(54) Title: EFFICIENT UTILIZATION OF TRANSMISSION GAPS FOR CELL MEASUREMENTS



(57) Abstract: A terminal communicates with a first wireless network and obtains a list of cells in a second wireless network to measure. The terminal operates in a compressed mode and receives multiple transmission gap pattern sequences for different measurement purposes, e.g., RSSI measurements, BSIC identification, and BSIC re-confirmation. The terminal utilizes each transmission gap for its designated purpose or an alternate purpose. For each transmission gap, the designated purpose for the transmission gap is ascertained, and whether the transmission gap is usable for an alternate purpose is also determined based on at least one criterion. The transmission gap is used for the alternate purpose if the at least one criterion is satisfied and is used for the designated purpose otherwise. For example, a transmission gap designated for RSSI measurement may be used for BSIC identification, a transmission gap designed for BSIC identification or BSIC re-confirmation may be used for RSSI measurement, and so on.

WO 2007/103822 A3

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).

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:

— *with international search report*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:
1 November 2007

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.