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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
4 June 2009 (04.06.2009)

PCT

(10) International Publication Number
WO 2009/070614 A3

(51) International Patent Classification:
H04W 16/16 (2009.01)

(21) International Application Number:
PCT/US2008/084749

(22) International Filing Date:
25 November 2008 (25.11.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/990,541	27 November 2007 (27.11.2007)	US
60/990,547	27 November 2007 (27.11.2007)	US
60/990,459	27 November 2007 (27.11.2007)	US
60/990,513	27 November 2007 (27.11.2007)	US
60/990,564	27 November 2007 (27.11.2007)	US
60/990,570	27 November 2007 (27.11.2007)	US
12/276,916	24 November 2008 (24.11.2008)	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)*: **YAVUZ, Mehmet** [TR/US]; 5775 Morehouse Drive, San Diego, California 92121 (US). **BLACK, Peter J.** [AU/US]; 5775 Morehouse Drive, San Diego, California 92121 (US). **NANDA, Sanjiv** [US/US]; 5775 Morehouse Drive, San Diego, California 92121 (US). **TOKGOZ, Yeliz** [TR/US]; 5775 Morehouse Drive, San Diego, California 92121 (US).

(74) Agent: **CORIE, Florin C.**; 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, AO, 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,

[Continued on next page]

(54) Title: INTERFERENCE MANAGEMENT IN A WIRELESS COMMUNICATION SYSTEM USING ADAPTIVE PATH LOSS ADJUSTMENT

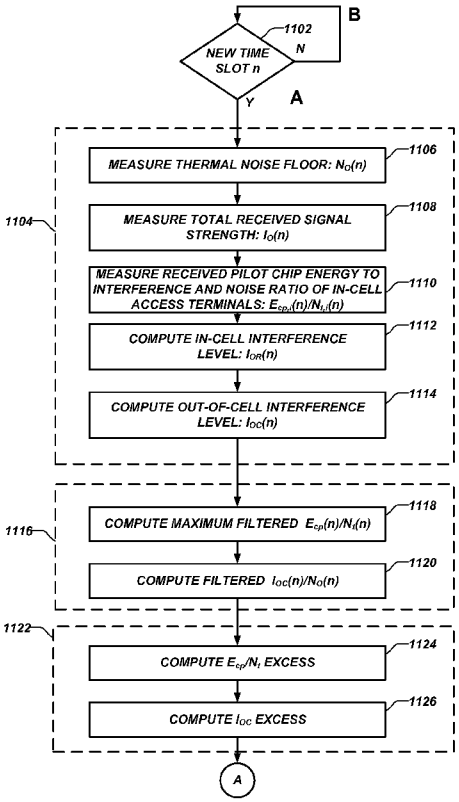


FIG. 11A

(57) Abstract: Interference that occurs during wireless communication may be managed by determination and application of an adaptive path loss adjustment. A method, apparatus and medium of communication determine a level of excess received interference based at least in part on out-of-cell interference (Ioc). The path loss is adjusted by an additional path loss on an uplink signal when the level of excess received interference exceeds an interference target that would cause a Rise-over-Thermal (RoT) metric to exceed stable communication.

WO 2009/070614 A3

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, ST, 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, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, 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 (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
24 September 2009