

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
4 October 2007 (04.10.2007)

PCT

(10) International Publication Number
WO 2007/111941 A2

(51) International Patent Classification: **Not classified**

(21) International Application Number:

PCT/US2007/007117

(22) International Filing Date: 22 March 2007 (22.03.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/785,491 24 March 2006 (24.03.2006) US

(71) Applicant (for all designated States except US): **INTER-DIGITAL TECHNOLOGY CORPORATION** [US/US]; 3411 Silverside Road, Concord Plaza, Suite 105, Hagley Building, Wilmington, Delaware 19810 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **WANG, Jin** [CN/US]; 34 Fairlawn Drive, Central Islip, New York 11722 (US). **CHEN, John, S.** [US/US]; 102 Bassatt Drive, Downingtown, Pennsylvania 19335 (US). **SAMMOUR, Mohammed** [CA/CA]; 2555 Modugno, Apt. #705,

Montreal, Québec H4R 2L5 (CA). **TERRY, Stephen, E.** [US/US]; 15 Summit Avenue, Northport, New York 11768 (US). **CHANDRA, Arty** [IN/US]; 31 Jeffrey Place, Manhasset Hills, New York 11040 (US). **ZHANG, Guodong** [CN/US]; 490 Main Street, Apt. C8, Farmingdale, New York 11735 (US).

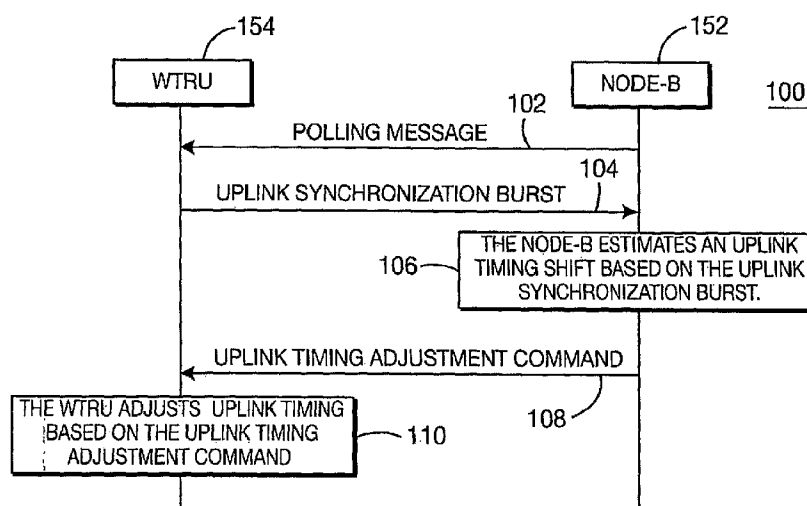
(74) Agent: **BALLARINI, Robert, J.**; Volpe and Koenig, P.C., United Plaza, Suite 1600, 30 South 17th Street, Philadelphia, Pennsylvania 19103 (US).

(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, 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,

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR MAINTAINING UPLINK SYNCHRONIZATION AND REDUCING BATTERY POWER CONSUMPTION



(57) Abstract: A Node-B sends a polling message to a wireless transmit/receive unit (WTRU). The WTRU sends an uplink synchronization burst in response to the polling message without contention. The Node-B estimates an uplink timing shift based on the synchronization burst and sends an uplink timing adjustment command to the WTRU. The WTRU then adjusts uplink timing based on the uplink timing adjustment command. Alternatively, the Node-B may send a scheduling message for uplink synchronization to the WTRU. The WTRU may send a synchronization burst based on the scheduling message. Alternatively, the WTRU may perform contention-based uplink synchronization after receiving a synchronization request from the Node-B. The WTRU may enter an idle state instead of performing a handover to a new cell when the WTRU moves to the new cell. A discontinuous reception (DRX) interval for the WTRU may be set based on activity of the WTRU.

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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).

Published:

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

(48) Date of publication of this corrected version:

13 December 2007

(15) Information about Correction:

see PCT Gazette No. 50/2007 of 13 December 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.