

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 February 2006 (23.02.2006)

PCT

(10) International Publication Number
WO 2006/020520 A2

(51) International Patent Classification:
H04J 3/07 (2006.01)

(21) International Application Number:

PCT/US2005/027956

(22) International Filing Date: 5 August 2005 (05.08.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/601,323 12 August 2004 (12.08.2004) US

(71) Applicant (for all designated States except US): **INTER-DIGITAL TECHNOLOGY CORPORATION** [US/US]; 300 Delaware Avenue, Suite 527, Wilmington, Delaware 19801 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GRANDHI, Sudheer A.** [US/US]; 1605 North James Street, Mamaroneck, New York 10543 (US). **CHANDRA, Arty** [IN/US]; 31 Jeffrey Place, Manhasset Hills, New York 11040 (US). **LEVY, Joseph, S.** [US/US]; 26 East Webster Street, Merrick, New York 11566 (US). **SHAHEEN, Kamel, M.** [EG/US]; 429 Ashton Drive, King of Prussia, Pennsylvania 19406 (US). **TERRY, Stephen, E.** [US/US]; 15 Summit Avenue, Northport, New York 11768 (US). **ZEIRA, Eldad** [US/US]; 106 East Neck Road, Huntington, New York 11743 (US).

(74) Agent: **BALLARINI, Robert, J.**; VOLPE AND KOENIG, P.C., United Plaza, Suite 1600, 30 S. 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, 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, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

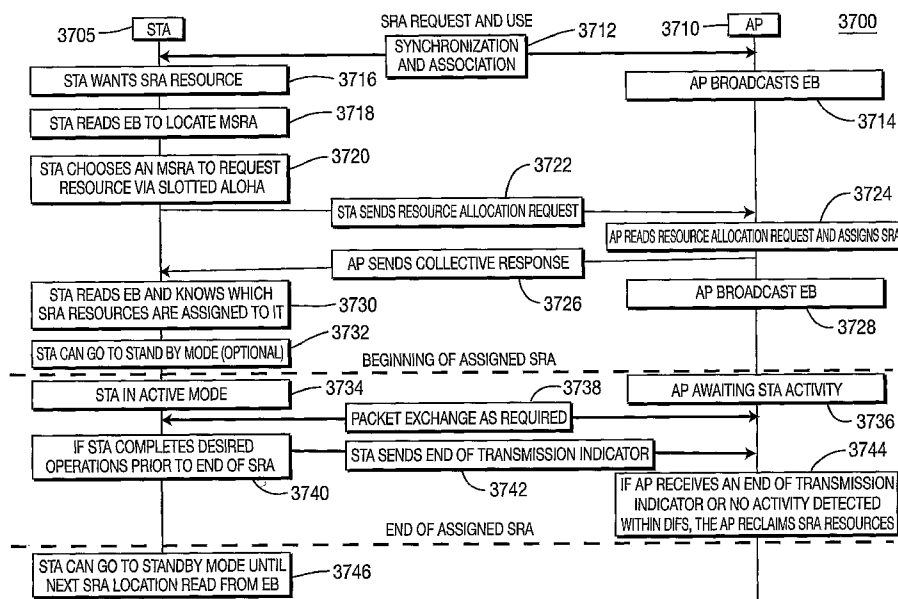
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, 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

[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR CONTROLLING ACCESS TO A WIRELESS COMMUNICATION MEDIUM



(57) Abstract: A method and system for controlling access to a medium in a wireless communication system. A superframe structure is defined in time domain to include a contention free period (CFP) which has at least one scheduled resource allocation (SRA), at least one management SRA (MSRA) and a contention period. An extended beacon (EB) including information about the SRA and MSRA is transmitted for. The MAC architecture reduces station battery consumption, supports higher throughput for non-real time (NRT) traffic and is more efficient for real time (RT) traffic while maintaining full compatibility.

WO 2006/020520 A2



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.