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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
10 June 2004 (10.06.2004)

PCT

(10) International Publication Number
WO 2004/049589 A1

(51) International Patent Classification[7]: H04B 7/00

(21) International Application Number:
PCT/US2003/038185

(22) International Filing Date:
25 November 2003 (25.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/429,888 26 November 2002 (26.11.2002) US
60/444,850 4 February 2003 (04.02.2003) US

(71) Applicant: **INTERDIGITAL TECHNOLOGY CORPORATION** [US/US]; 300 Delaware Avenue, Suite 527, Wilmington, DE 19801 (US).

(72) Inventors: **KOO, Chang-Soo**; 15 Zoranne Drive, East Northport, NY 11731 (US). **GRANDHI, Sudheer, A.**; 365 Mather Street, Apt. # 162, Hamden, CT 06514 (US). **TERRY, Stephen, E.**; 15 Summit Avenue, Northport, NY 11768 (US).

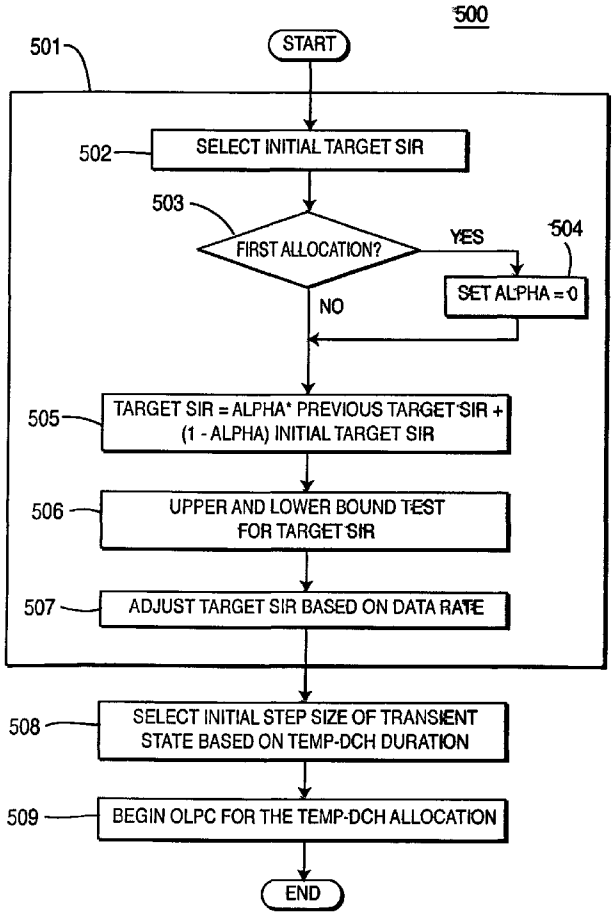
(74) Agent: **KOENIG, C. Frederick, III**; Volpe and Koenig, P.C., United Plaza, Suite 1600, 30 South 17th Street, Philadelphia, PA 19103 (US).

(81) Designated States *(national)*: 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, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: OUTER LOOP POWER CONTROL FOR WIRELESS COMMUNICATION SYSTEMS



(57) Abstract: A method, system, and components for outer loop power control (500) particularly useful for non-real time data services uses data transmitted in many short bursts of short duration, called Temp-DCH allocations (509). A target metric, preferably target SIR (502), is adjusted with differing step up and step down target metric adjustments. The initial target SIR (502) and the transient step size for target SIR adjustment (505-507) is determined in a dynamic way in the outer loop power control for each Temp-DCH allocation (509) of non-real time data.

WO 2004/049589 A1

Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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*

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.