(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 30 November 2006 (30.11.2006)

T (10) International Publication Number WO 2006/127464 A3

(51) International Patent Classification: *H04B 7/00* (2006.01)

(21) International Application Number:

PCT/US2006/019460

(22) International Filing Date: 18 May 2006 (18.05.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/684,021 23 May 2005 (23.05.2005) US Not furnished 16 May 2006 (16.05.2006)

(71) Applicant (for all designated States except US): NAVINI NETWORKS, INC [US/US]; 2240 Campbell Creel Blvd., Suite 110, Richardson, TX 75082 (US).

(72) Inventors; and

- (75) Inventors/Applicants (for US only): BANH, An, Tuyen [US/US]; 135 Wentwood Drive, Murphy, TX 75094 (US). JIN, Hang [CA/US]; 3708 Stoneway Drive, Plano, TX 75025 (US). GRABNER, John [US/US]; 817 Shannon, Plano, TX 75025 (US).
- (74) Agents: CHEN, Howard et al.; Kirkpatrick & Lockhart Preston Gates Ellis LLP, 55 Second Street, Suite 1700, San Francisco, CA 94104 (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, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, 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).

Declarations under Rule 4.17:

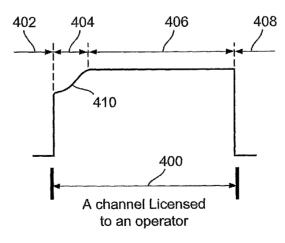
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

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: 8 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.

(54) Title: METHOD FOR UP-LINK TRANSMIT POWER MANAGEMENT IN A WIRELESS BROADBAND TERMINAL



(57) Abstract: A method is disclosed for optimizing up-link transmit powers of a wireless broadband terminal operating in a predetermined frequency band in a multi-carrier system, the method comprising assigning a transmit signal to one or more sub-carriers of predetermined frequencies, and capping the output powers of the transmit signal to a predetermined level based on the predetermined frequencies, wherein the output power of the transmit signal is lower if frequencies of the transmit signal have less guard band to the edge of the predetermined frequency band.



INTERNATIONAL SEARCH REPORT

International application No. PCT/US06/19460

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - H04B 7/00 (2007.01) USPC - 455/522			
According to International Patent Classification (IPC) or to both national classification and IPC			
B. FIELDS SEARCHED			
Minimum documentation searched (classification system followed by classification symbols) IPC(8) - H04B 7/00 (2007.01) USPC - 455/522			
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched			
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)			
MicroPatent (Databases - USG USA EPA EPB WO JP DEG DEA DET DEU GBA FRA): transmi*7 near3 (power*5 or energ*5) near3 (manag*7 or limit*7 or lower*7 or minim*7) and ((peak*1-to-mean*1 or (peak*1 near3 (mean*1 or averag*5)) or peak*1-to-averag*5) near3 (ratio or rate*1 or percent*5))			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where a	ppropriate, of the relevant passages	Relevant to claim No.
х	US 2004/0162097 A1 (VIJAYAN et al) 19 August 2004 (19.08.2004) entire document		1-26
A	US 6,445,930 B1 (BARTELME et al) 03 September 2002 (03.09.2002) entire document		1-26
A	US 2002/0186710 A1 (ALVESALO et al) 12 December 2002 (12.12.2002) entire document		1-26
A	US 2005/0043033 A1 (FABIEN et al) 24 February 2005 (24.02.2005) entire document		1-26
Α	US 5,870,393 A (YANO et al) 09 February 1999 (09.02.1999) entire document		1-26
Furthe	er documents are listed in the continuation of Box C.		
* Special categories of cited documents: "T" later document published after the international filing date or priority			
to be of	the defining the general state of the art which is not considered of particular relevance date and not in conflict with the application but cited to understand the principle or theory underlying the invention		
filing da	pplication or patent but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone		
cited to special	establish the publication date of another citation or other "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is		
means "P" docume	being obvious to a person skilled in the art		
	the priority date claimed Date of the actual completion of the international search Date of mailing of the international search report		
12 April 2007		31 AUG 2007	
Name and mailing address of the ISA/US		Authorized officer: Blaine R. Copenheaver	
Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450		PCT Helpdesk: 571-272-4300	
Facsimile No. 571-273-3201 PCT OSP		PCT OSP: 571-272-7774	