

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
16 February 2006 (16.02.2006)

PCT

(10) International Publication Number
WO 2006/016777 A3

(51) International Patent Classification:

H04B 1/707 (2006.01) H04Q 7/32 (2006.01)
H04B 7/005 (2006.01) H04Q 7/38 (2006.01)

Seung Hwan [KR/KR]; 622-201, Jugong Apt., 6 Danji, Byeoryang-dong, Gwacheon-si, Gyeonggi-do 427-708 (KR).

(21) International Application Number:

PCT/KR2005/002609

(74) Agents: KIM, Yong In et al.; KBK & Associates, 15th Floor Yo Sam Building, 648-23, Yeoksam-dong,, Kangnam-gu, Seoul 135-080 (KR).

(22) International Filing Date: 11 August 2005 (11.08.2005)

(25) Filing Language: English

(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, 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.

(26) Publication Language: English

(30) Priority Data:
10-2004-0063123 11 August 2004 (11.08.2004) KR

(71) Applicant (for all designated States except US): LG ELECTRONICS INC. [KR/KR]; 20, Yoido-dong, Youngdungpo-gu, Seoul 150-721 (KR).

(72) Inventors; and

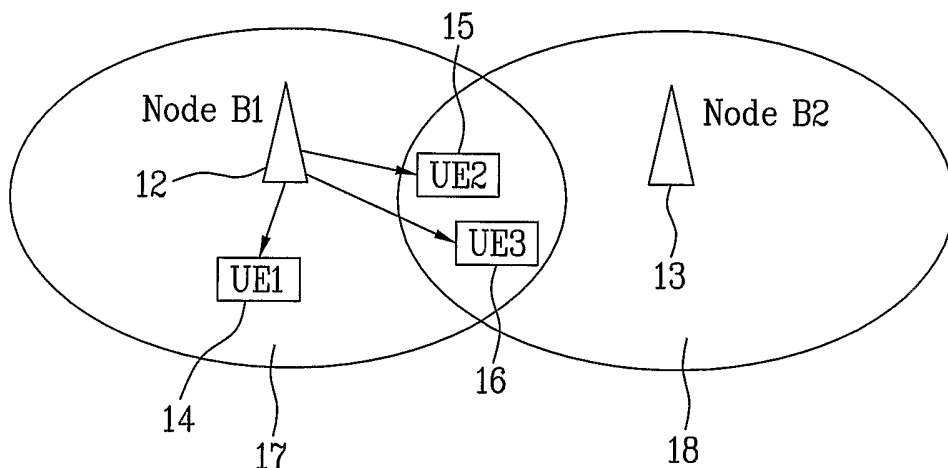
(75) Inventors/Applicants (for US only): KIM, Bong Hoe [KR/KR]; 103-105, Taeyeong Apt., Bono-dong, Sangnok-gu, Ansan-si, Gyeonggi-do 426-180 (KR). AHN, Joon Kui [KR/KR]; 108-1505, Gwanak Hyundai Apt., Sangdo 5(o)-dong,, Dongjak-gu, Seoul 156-781 (KR). KIM, Hak Seong [KR/KR]; 111-1501, Daewoo Apt., Bongcheon 3(sam)-dong, Gwanak-gu, Seoul 151-053 (KR). ROH, Dong Wook [KR/KR]; 103-1602, Woobang Apt., Sillim 4(sa)-dong, Gwanak-gu, Seoul 151-014 (KR). SEO, Dong Youn [KR/KR]; #233-13, Nonhyeon 2(i)-dong, Gangnam-gu, Seoul 135-012 (KR). WON,

(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:
— with international search report

[Continued on next page]

(54) Title: UPLINK TRANSMISSION POWER CONTROL IN WIRELESS COMMUNICATION SYSTEM



(57) Abstract: A method of controlling uplink transmission power to reduce interference in a wireless communication system comprises establishing an uplink communication through an uplink dedicated channel between a user equipment (UE) and a base station (Node-B1), wherein the base station is operationally connected to a radio network controller (RNC). The method also comprises receiving a scheduling command from the base station (Node-B1) for controlling transmission power of the user equipment (UE), wherein the scheduling command is determined from scheduling information comprising transmission power information received from the radio network controller (RNC), the transmission power information being determined in response to information associated with at least one user equipment (UE) that is in soft handover relationship with another base station (Node-B2). The method also comprises controlling uplink data transmission in response to the scheduling command.

WO 2006/016777 A3



— *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.

(88) Date of publication of the international search report:

7 December 2006

INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR 2005/002609

A. CLASSIFICATION OF SUBJECT MATTER IPC ⁸ : H04B 1/707 (2006.01); H04B 7/005 (2006.01); H04Q 7/32 (2006.01); H04Q 7/38 (2006.01) 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, H04L, H04Q		
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) WPI, EPODOC, Elsevier, IEE, IEEEExplore, Research Disclosure, IBM TDB		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 815 798 A (BHAGALIA et al.) 29 September 1998 (29.09.1998) <i>figures, abstract, column 1, line 8 - column 2, line 44</i> --	1-24
X	US 2001/024964 A1 (WANG et al.) 27 September 2001 (27.09.2001) <i>figures, abstract, paragraph [0005]</i> --	1-24
X	EP 1 313 232 A1 (SAMSUNG ELECTRONICS CO LTD) 21 May 2003 (21.05.2003) <i>figures, abstract, paragraph [0011]-[0013]</i> ----	1-24
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "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 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 13 September 2006 (13.09.2006)		Date of mailing of the international search report 6 October 2006 (06.10.2006)
Name and mailing address of the ISA/ AT Austrian Patent Office Dresdner Straße 87, A-1200 Vienna Facsimile No. +43 / 1 / 534 24 / 535		Authorized officer MESA PASCASIO J. Telephone No. +43 / 1 / 534 24 / 327

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/KR 2005/002609

Patent document cited in search report		Publication date	Patent family member(s)		Publication date		
EP	A1	1313232	2003-05-21	KR	A	2003041766	2003-05-27
				US	A1	2003108013	2003-06-12
				WO	A1	03044989	2003-05-30
				JP	T	2005510173T	2005-04-14
				DE	T2	60201062T	2004-12-30
US	A1	2001024964	2001-09-27	WO	A1	0120810	2001-03-22
				EP	A1	1129528	2001-09-05
				CN	A	1321371	2001-11-07
				AU	A	7004300	2001-04-17
				FI	A	991940	2001-03-10
US	A	5815798		AU	A	2245899	1999-05-27
				AU	A	2245799	1999-05-20
				US	B1	6198911	2001-03-06
				US	B1	6324208	2001-11-27
				US	B1	6366570	2002-04-02
				US	B1	6185197	2001-02-06