



- (51) International Patent Classification:
H04B 10/293 (2013.01)
- (21) International Application Number:
PCT/US2014/023732
- (22) International Filing Date:
11 March 2014 (11.03.2014)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
61/886,971 4 October 2013 (04.10.2013) US
- (71) Applicant (for all designated States except US): **FUJITSU LIMITED** [JP/JP]; 1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki-shi, Kanagawa, 211-8588 (JP).
- (72) Inventors; and
- (71) Applicants (for US only): **ITO, Akira** [JP/US]; C/o Fujitsu Laboratories Of America, Inc., 1240 East Arques Ave., Sunnyvale, CA 94085 (US). **ZHU, Chenxi** [US/US]; C/o Fujitsu Laboratories Of America, Inc., 1240 East Arques Ave., Sunnyvale, CA 94085 (US).
- (74) Agents: **ISRAELSEN, R., Burns** et al.; Maschoff Brennan, 1389 Center Drive, Suite 300, Park City, UT 84098 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(88) Date of publication of the international search report:
29 October 2015

(54) Title: CONFIGURING WIRELESS NETWORK COMMUNICATIONS

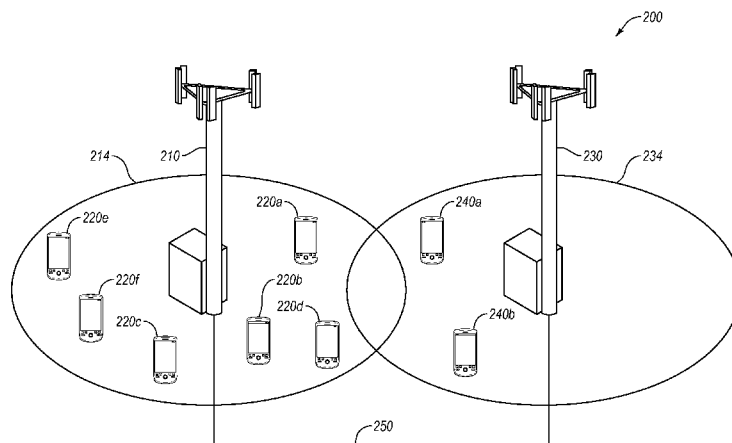


Fig. 2

(57) Abstract: A method of configuring wireless network communications may include transmitting a reference signal from a first access point in a first cell to a wireless device in a second cell. The wireless device may also be associated with a second access point in the second cell. The method may further include receiving, at the second access point, channel data from the wireless device. The channel data may be generated by the wireless device based on the reference signal received by the wireless device. The method may further include estimating, based on the received channel data, interference in the second cell due to transmissions originating in the first cell.



INTERNATIONAL SEARCH REPORT

International application No.

PCT/US14/23732

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - H04B 10/293 (2014.01) USPC - 455/63.1 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) : H04W 28/02; H04B 15/00; H04B 10/293 (2014.01) USPC : 455/63.1; 375/224; 370/252 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 (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); Google/ Google Patents; IEEE; ProQuest. Keywords: wireless; cell; estimate; interference; precoding; channel data		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2010/0087149 A1 (SRINIVASAN, M et al.) 8 April 2010; Abstract; paragraphs [0118], [0124], [0131], [0132], [0179].	1-6, 8, 11-16 and 18 ----- 7, 9, 10, 17, 19 and 20
Y	US 2012/0213261 A1 (SAYANA, K et al.) 23 August 2012; Abstract; paragraphs [0025], [0050].	7 and 17
Y	US 2012/0269077 A1 (BAZZI, S et al.) 25 October 2012; Abstract; paragraphs [0019], [0041], [0042], [0060].	9, 10, 19 and 20
Y	US 2012/0051257 A1 (KIM, H et al.) 1 March 2012; Abstract; paragraphs [0013], [0039], [0060].	10 and 20
A	US 2006/0094371 A1 (NGUYEN, H) 4 May 2006; whole document.	1-20
A	US 2008/0113640 A1 (BENNETT, J) 15 May 2008; whole document.	1-20
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/>		
* 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 23 June 2014 (23.06.2014)		Date of mailing of the international search report 14 JUL 2014
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201		Authorized officer: Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774