



- (51) **International Patent Classification:**
H04L 29/14 (2006.01)
- (21) **International Application Number:**
PCT/US2013/078136
- (22) **International Filing Date:**
27 December 2013 (27.12.2013)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
61/755,432 22 January 2013 (22.01.2013) US
- (71) **Applicant:** EDEN ROCK COMMUNICATIONS, LLC [US/US]; 18912 N Creek Pkwy, Suite 104, Bothell, Washington 98011 (US).
- (72) **Inventors:** IMMENDORF, Chaz; 18912 N Creek Pkwy, Suite 104, Bothell, Washington 98011 (US). YUN, Jungnam; 18912 N Creek Pkwy, Suite 104, Bothell, Washington 98011 (US). GORMLEY, Eamonn; 18912 N Creek Pkwy, Suite 104, Bothell, Washington 98011 (US).

(74) **Agent:** RAUDEBAUGH, Kevin; 6100 219th ST S.W., STE 580, Mountlake Terrace, Washington 98043 (US).

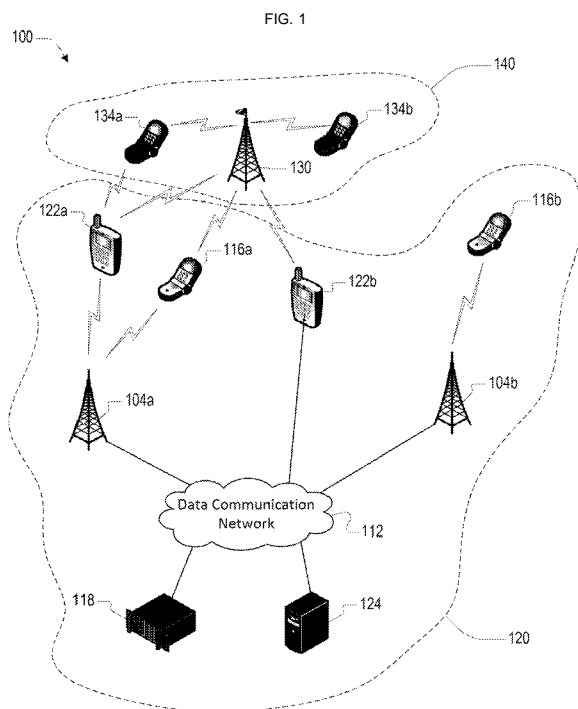
(81) **Designated States (unless otherwise indicated, for every kind of national protection available):** AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, 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,

[Continued on nextpage]

(54) **Title:** METHOD AND SYSTEM FOR INTELLIGENT JAMMING SIGNAL GENERATION

(57) **Abstract:** Detecting and jamming a wireless network using an intelligent jammer comprises determining that a signal source is an unlicensed signal source, synchronizing the intelligent jammer with the unlicensed signal source, determining a time and a frequency of a protocol signal associated with the unlicensed signal source, and transmitting a jamming signal according to the time and the frequency of the protocol signal. A system for detecting and jamming a wireless network comprises a first intelligent jammer, and an Intelligent Detection and Jamming Server (IDJS) coupled to the first intelligent jammer.





TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

— *before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments (Rule 48.2(h))*

Published:

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

(88) Date of publication of the international search report:
4 December 2014

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/078136**A. CLASSIFICATION OF SUBJECT MATTER****H04L 29/14(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)

H04L 29/14; H04B 17/00; H04K 3/00; G01S 7/38

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: jammer, server, signal, bogus, PRACH, BCH, time, frequency

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2010-0302087 A1 (NATHAN E. LOW) 02 December 2010 See paragraphs [0006H0009] , [0034]-[0040] ; and figure 2 .	1,7,12
Y		2-6,8
A		9-11,13-26
Y	US 2008-0119130 A1 (AMIT SINHA) 22 May 2008 See paragraphs [0013H0014] , [0093], [0100]; and figure 2 .	2-6
Y	US 2010-0240315 A1 (FREDRIK TUFVESSON et al.) 23 September 2010 See paragraphs [0069], [0078]; and figure 1 .	6,8
A	US 2011-0086590 A1 (MICHAEL L. JOHNSON et al.) 14 April 2011 See paragraphs [0033], [0040]; and figure 5 .	1-26
A	US 2004-0242149 A1 (LOUIS LUNEAU) 02 December 2004 See paragraphs [0034], [0039]; and figure 1 .	1-26

I Further documents are listed in the continuation of Box C. 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

08 October 2014 (08.10.2014)

Date of mailing of the international search report

10 October 2014 (10.10.2014)

Name and mailing address of the ISA/KR

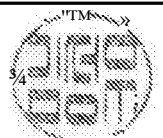
International Application Division
Korean Intellectual Property Office
189 Cheongsu-ro, Seo-gu, Daejeon Metropolitan City, 302-701,
Republic of Korea

Facsimile No. +82-42-472-7140

Authorized officer

KGM, Seong Woo

Telephone No. +82-42-481-3348



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2013/078136

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
us 2010--0302087 AI	02/12/2010	US 7982654 B2	19/07/2011
us 2008--0119130 AI	22/05/2008	us 7783300 B2	24/08/2010
us 2010--0240315 AI	23/09/2010	AT 490665 T	15/12/2010
		AU 2008-280250 AI	29/01/2009
		CA 2696153 AI	29/01/2009
		CN 101785350 A	21/07/2010
		DE 602008003839 DI	13/01/2011
		EP 2179618 AI	28/04/2010
		EP 2179618 BI	01/12/2010
		JP 2010-534016 A	28/10/2010
		RU 2010-104997 A	27/08/2011
		wo 2009-013188 AI	29/01/2009
us 2011--0086590 AI	14/04/2011	us 8260190 B2	04/09/2012
us 2004--0242149 AI	02/12/2004	wo 2004-107792 A2	09/12/2004
		wo 2004-107792 A3	06/05/2005