

Art Unit: 2464

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAN YUEN whose telephone number is (571)270-1413. The examiner can normally be reached on Monday - Friday 11pm-7pm.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KAN YUEN/
Primary Examiner, Art Unit 2464

Notice of References Cited	Application/Control No. 15/287,711		Applicant(s)/Patent Under Reexamination Amini et al.	
	Examiner KAN YUEN		Art Unit 2464	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20160192203-A1	06-2016	Gokturk; Muharrem Sarper	H04L41/0823	370/254
*	B	US-20170238189-A1	08-2017	Nolan; Keith	H04W16/14	370/328
	C					
	D					
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	I					
	J					
	K					
	L					
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FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes 	Application/Control No. 15/287,711	Applicant(s)/Patent Under Reexamination Amini et al.
	Examiner KAN YUEN	Art Unit 2464

CPC - Searched*		
Symbol	Date	Examiner
H04L12/44 ; H04L43/0888 ; H04L43/0894 ; H04L43/10 ; H04L43/16 ; H04L45/20 ; H04W24/04 ; H04W24/06 ; H04W24/08 ; H04W36/30 ; H04W36/36 ; H04W40/12 ; H04W4/023 ; H04W72/0453 ; H04W72/085 ; H04W76/10 ; H04W76/15 ; H04W84/12 ; H04W84/18	09/30/2018	KY

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
EAST SEARCH; MANUAL SEARCH H04L12/44	09/30/2018	KY
INVENTORSHIP SEARCH	09/30/2018	KY

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/KAN YUEN/ Primary Examiner, Art Unit 2464	
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<i>Index of Claims</i> 	Application/Control No. 15/287,711	Applicant(s)/Patent Under Reexamination Amini et al.
	Examiner KAN YUEN	Art Unit 2464

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS										
☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47										
CLAIM			DATE							
Final	Original	09/30/2018								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								
	7	✓								
	8	✓								
	9	✓								
	10	✓								
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	18	✓								
	19	✓								
	20	✓								
	21	✓								

Doc code: IDS

PTO/SB/08a (03-15)

Doc description: Information Disclosure Statement (IDS) Filed

Approved for use through 07/31/2016. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	15287711
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8053.US01

U.S.PATENTS

Remove

Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	7155167	B1	2006-12-26	CARTY	
	2	7502354	B1	2009-03-10	MAUFER	
	3	7567822	B2	2009-07-28	HART, et al.	
	4	8248948	B2	2012-08-21	WEIL, et al.	

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U.S.PATENT APPLICATION PUBLICATIONS

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Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20020042274	A1	2002-04-11	ADES	
	2	20050048963	A1	2005-03-03	KUBLER, et al.	

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3	20070206528	A1	2007-09-06	WALTON, et al.
4	20070280453	A1	2007-12-06	KELLEY, et al.
5	20080247317	A1	2008-10-09	WEIL, et al.
6	20090067369	A1	2009-03-12	STAMOULIS, et al.
7	20090135738	A1	2009-05-28	MHATRE, et al.
8	20090135794	A1	2009-05-28	SU, et al.
9	20090221238	A1	2009-09-03	KO, et al.
10	20100157888	A1	2010-06-24	AGGARWAL, et al.
11	20100231473	A1	2010-09-16	SHTROM, et al.
12	20100246416	A1	2010-09-30	SINHA, et al.
13	20100291931	A1	2010-11-18	SUEMITSU, et al.

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14	20110250926	A1	2011-10-13	WIETFELDT, et al.
15	20110299422	A1	2011-12-08	KIM, et al.
16	20120129517	A1	2012-05-24	FOX, et al.
17	20120224484	A1	2012-09-06	BABIARZ, et al.
18	20120225646	A1	2012-09-06	MOCHIDA, et al.
19	20140254400	A1	2014-09-11	ZHOU, et al.
20	20150092681	A1	2015-04-02	FERNANDO, et al.
21	20150103685	A1	2015-04-16	BUTCHKO, et al.
22	20150215791	A1	2015-07-30	GELLER, et al.
23	20160029384	A1	2016-01-28	SIDHU, et al.
24	20160066249	A1	2016-03-03	DUKES, et al.

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25	20160094946	A1	2016-03-31	KEITHLEY
26	20160227544	A1	2016-08-04	KATAR, et al.
27	20160269097	A1	2016-09-15	ISLAM, et al.
28	20160308755	A1	2016-10-20	GARG
29	20170006431	A1	2017-01-05	DONOVAN, et al.
30	20170118705	A1	2017-04-27	TRAN, et al.

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EXAMINER SIGNATURE

Examiner Signature	/KAN YUEN/	Date Considered	09/30/2018
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

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Attorney Docket Number	110729-8053.US01

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

- ☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.
- ☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Han-Wei Chen/	Date (YYYY-MM-DD)	2018-09-28
Name/Print	Han-Wei (Harvey) Chen	Registration Number	75350

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1	15/287711	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 12:57
S2	133928	((H04L12/44 OR H04L43/0888 OR H04L43/0894 OR H04L43/10 OR H04L43/16 OR H04L45/20 OR H04W24/04 OR H04W24/06 OR H04W24/08 OR H04W36/30 OR H04W36/36 OR H04W40/12 OR H04W4/023 OR H04W72/0453 OR H04W72/085 OR H04W76/10 OR H04W76/15 OR H04W84/12 OR H04W84/18).CPC.)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 13:08
S3	1	15/287711 (backhaul and forward\$4 near3 link)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 13:08
S4	632	(backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) near7 (link or channel or transmission or connection) with mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 13:41
S5	56	(redundan\$4 or alternative or second\$4 or supplement\$4 or standby or backup or spar\$3 or slave or protect\$3) near4 (backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) near7 (link or channel or transmission or connection) with mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 13:43
S6	38	S2 S5	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 13:46
S7	38	S2 S5	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 13:46
S9	111	(redundan\$4 or alternative or second\$4 or supplement\$4 or standby or backup or spar\$3 or slave or protect\$3) near8 (backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 14:18
S10	57	S2 S9	US-PGPUB; USPAT; USOCR; EPO;	AND	ON	2018/03/19 14:18

S11	57	S2 S9	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 14:18
S12	1	15/002383 (connection with reserv\$6)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 18:19
S13	1140	(LTE near6 (connection or interface or communication)) with (backhaul\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 19:58
S14	226	(LTE near6 (connection or interface or communication)) with ("2.4ghz" or "2.4 ghz" or "5 ghz" or "5ghz")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 19:58
S15	18	S13 S14	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 19:59
S16	2	15/002383 (backhaul or (back adj2 haul\$4))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 19:59
S17	1	13/787313	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 20:29
S18	1	13/787313 (backhaul near3 link same (packet or control))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 21:41
S19	1	15/002383 (aggregat\$5 near8 backhaul)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 22:23
S20	140	aggregat\$5 with (backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 22:24
S21	1	13/787313 (processing near2 system or "520") and ("532")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 23:18
S22	130	(relay\$4 or intermediat\$4) with (backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with mesh	US-PGPUB; USPAT; USOCR; EPO;	AND	ON	2018/03/19 23:40

S23	286	(select\$4 or choos\$4) near9 (relay\$4 or intermediat\$4) with (backhaul\$4 or back-haul\$4 or (back adj2 haul\$4))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/20 11:30
S24	12	mesh with (backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) S23	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/20 11:30
S25	2	("20100260146").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/20 11:36
S32	636	(backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with (powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/27 16:18
S33	18	(backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with (powerline or power-line or (power adj2 line)) with (ghz)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/27 16:20
S34	50	(backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with (powerline or power-line or (power adj2 line)) with (ghz or giga\$4 or \$ghz)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/27 16:20
S35	50	(backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with (powerline or power-line or (power adj2 line)) with (ghz or giga\$4 or \$ghz)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/27 16:20
S36	4	15/287711	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/27 16:21
S37	145	(bs or ap or (base adj2 station) or (access adj2 (point or node))) with (powerline or power-line or (power adj2 line)) with (ghz or giga\$4 or \$ghz)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/27 21:56
S38	4	15/287711	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/27 22:09
S39	150	(repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (powerline or power-line or (power adj2 line)) with (ghz or giga\$4 or \$ghz)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/27 22:11
S40	712	(repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or	US-PGPUB; USPAT;	AND	ON	2018/09/28 11:15

		(access adj2 (point or node))) with (powerline or power-line or (power adj2 line)) with (select\$4 or choos\$4)	USOCR; EPO; DERWENT			
S41	278672	(repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with ("g" or ghz or "2.4" or "5") with (select\$4 or choos\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 11:17
S42	168	S40 S41	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 11:35
S43	712	(repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (powerline or power-line or (power adj2 line)) with (select\$4 or choos\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 15:49
S44	278672	(repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with ("g" or ghz or "2.4" or "5") with (select\$4 or choos\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 15:49
S45	168	S43 S44	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 15:49
S46	0	15/287711 S45	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:04
S47	0	15/287711 (select\$4 with power)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:04
S48	4	15/287711	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:04
S49	4	15/287711 select\$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:05
S50	815	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:10
S51	50	(select\$4 or choos\$4) with (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:12

S52	1	15/287711 S50	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:13
S53	241	(select\$4 or choos\$4) same (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:13
S54	89	S50 S53	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:14
S55	44544	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz" or (sub adj2 ("1ghz" or "1 ghz" or "1-ghz")))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:41
S56	0	(select\$4 or choos\$4) same (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz") same (sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 17:55
S57	4	(select\$4 or choos\$4) same (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz") same (sub adj2 ("1ghz" or "1 ghz" or "1-ghz") or sub-1\$5)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 17:56
S58	4	(select\$4 or choos\$4) same (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz") same (sub adj2 ("1ghz" or "1 ghz" or "1-ghz") or sub-1\$5 or sub-1ghz or sub-1-ghz)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 17:57
S59	86	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same (select\$4 or choos\$4) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz" or (sub adj2 ("1ghz" or "1 ghz" or "1-ghz")) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 18:05
S60	0	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same (backhual\$4) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz" or (sub adj2 ("1ghz" or "1 ghz" or "1-ghz")) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 18:29
S61	39	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2	US-PGPUB; USPAT;	AND	ON	2018/09/28 18:29

		station) or (access adj2 (point or node))) same (backhaul\$4) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz" or (sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))) same (plc or powerline or power-line or (power adj2 line))	USOCR; EPO; DERWENT			
S62	4	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same (backhaul\$4) same ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/29 17:34
S63	5	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (backhaul\$4) with ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/29 17:35
S64	4	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (backhaul\$4) with ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/29 17:36
S65	4	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (backhaul\$4) with ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz" or "1G" or "1-G"))) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/29 17:37
S66	7	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (backhaul\$4) with ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz" or "1G" or "1-G"))) select\$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/29 17:38
S67	4	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz" or "1G" or "1-G"))) same (plc or powerline or power-line or (power adj2 line)) same ("5ghz" or "5 ghz" or "5-ghz" or "5G" or "5-G")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/29 17:43
S68	4	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz" or "1G" or "1-G"))) same (plc or powerline or power-line or (power adj2 line)) same ("5ghz" or "5 ghz" or "5-ghz" or "5G" or "5-G")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/29 17:44
S69	1	"14757422" (interface with channel)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/29 18:11
S70	1	15/504606 (spectrum adj4 database)	US-PGPUB;	AND	ON	2018/09/29

		same ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz" or "1G" or "1-G")))	USPAT; USOCR; EPO; DERWENT		18:31
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EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L3	5127	(establish\$4 near5 forward\$4).clm.	US-PGPUB; USPAT	AND	ON	2018/09/30 20:27
L4	67	(establish\$4 near5 backhaul near4 communication).clm.	US-PGPUB; USPAT	AND	ON	2018/09/30 20:27
L5	2	3 4	US-PGPUB; USPAT	AND	ON	2018/09/30 20:27
L6	4045	(wireless near4 technolog\$4).clm.	US-PGPUB; USPAT	AND	ON	2018/09/30 20:27
L7	1	5 6	US-PGPUB; USPAT	AND	ON	2018/09/30 20:28
S26	4983	(establish\$4 near5 forward\$4).clm.	US-PGPUB; USPAT	AND	ON	2018/03/20 14:05
S27	62	(establish\$4 near5 backhaul near4 communication).clm.	US-PGPUB; USPAT	AND	ON	2018/03/20 14:05
S28	2	S26 S27	US-PGPUB; USPAT	AND	ON	2018/03/20 14:05
S29	2	S26 S27	US-PGPUB; USPAT	AND	ON	2018/03/20 14:06
S30	3828	(wireless near4 technolog\$4).clm.	US-PGPUB; USPAT	AND	ON	2018/03/20 14:06
S31	1	S29 S30	US-PGPUB; USPAT	AND	ON	2018/03/20 14:07

9/ 30/ 2018 8:32:01 PM

C:\Users\kyuen\Documents\EAST\Workspaces\15287711.wsp

Doc code: IDS

PTO/SB/08a (03-15)

Doc description: Information Disclosure Statement (IDS) Filed

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Application Number	15287711
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8053.US01

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	1	9179495	B1	2015-11-03	SCHERZER, et al.	
	2	9832796	B2	2017-11-28	MEHTA	

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	1	20080025208	A1	2008-01-31	CHAN	
	2	20090046655	A1	2009-02-19	ZHAO, et al.	
	3	20090252127	A1	2009-10-08	RANGARAJAN, et al.	
	4	20100118830	A1	2010-05-13	STEPHENSON, et al.	

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Examiner Name	Kan Yuen
Attorney Docket Number	110729-8053.US01

5	20110081903	A1	2011-04-07	CAI, et al.
6	20110286404	A1	2011-11-24	ABRAHAM, et al.
7	20120020319	A1	2012-01-26	SONG, et al.
8	20120294200	A1	2012-11-22	WANG, et al.
9	20130194948	A1	2013-08-01	MALLIK, et al.
10	20140233412	A1	2014-08-21	MISHRA, et al.
11	20140270306	A1	2014-09-18	LUNA, et al.
12	20150029067	A1	2015-01-29	DONALDSON, et al.
13	20150049616	A1	2015-02-19	COWAN, et al.
14	20150264614	A1	2015-09-17	STAGER, et al.
15	20150334750	A1	2015-11-19	MEHTA

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16	20160007273	A1	2016-01-07	PANG, et al.
17	20160142163	A1	2016-05-19	SIROTKIN
18	20160286374	A1	2016-09-29	PATIL, et al.
19	20160366632	A1	2016-12-15	CUI, et al.
20	20170048913	A1	2017-02-16	TEYEB, et al.
21	20170070919	A1	2017-03-09	CHANDOK, et al.
22	20170125920	A1	2017-05-04	SPIEL, et al.
23	20170127295	A1	2017-05-04	BLACK, et al.
24	20170127325	A1	2017-05-04	VIKBERG, et al.
25	20170164260	A1	2017-06-08	SHI, et al.
26	20170215091	A1	2017-07-27	LING

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27	20170251410	A1	2017-08-31	COMSTOCK
28	20170325243	A1	2017-11-09	YASUKAWA, et al.

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	1	"WLAN High Availability", Technical white paper, Hewlett-Packard Development Company, L.P., Oct. 2014, 8 pages	

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Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8053.US01

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Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

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See attached certification statement.

- ☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.
- ☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Han-Wei Chen/	Date (YYYY-MM-DD)	2018-07-05
Name/Print	Han-Wei Chen	Registration Number	75350

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15287711	CTFR	10/04/2018	110729-8053.US01
	892	10/04/2018	110729-8053.US01
	1449	10/04/2018	110729-8053.US01
	1449	10/04/2018	110729-8053.US01

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	Filing Date	2016-10-06
	First Named Inventor	Peiman Amini
	Art Unit	2464
	Examiner Name	Kan Yuen
	Attorney Docket Number	110729-8053.US01

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	1	20120224481	A1	2012-09-06	BABIARZ, et al.	
	2	20150018028	A1	2015-01-15	UPLENCHWAR, et al.	
	3	20170164323	A1	2017-06-08	MARKHOVSKY, et al.	

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Attorney Docket Number	110729-8053.US01

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☒ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Han-Wei Chen/	Date (YYYY-MM-DD)	2018-11-28
Name/Print	Han-Wei Chen	Registration Number	75350

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	15287711			
Filing Date:	06-Oct-2016			
Title of Invention:	DEDICATED BACKHAUL LINK FOR A ROBUST WIRELESS MESH NETWORK			
First Named Inventor/Applicant Name:	Peiman Amini			
Filer:	Han-Wei Chen/Christine Ortt			
Attorney Docket Number:	110729-8053.US01			
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	1806	1	240	240
Total in USD (\$)				240

Electronic Acknowledgement Receipt

EFS ID:	34428323
Application Number:	15287711
International Application Number:	
Confirmation Number:	6154
Title of Invention:	DEDICATED BACKHAUL LINK FOR A ROBUST WIRELESS MESH NETWORK
First Named Inventor/Applicant Name:	Peiman Amini
Customer Number:	22918
Filer:	Han-Wei Chen/Christine Ortt
Filer Authorized By:	Han-Wei Chen
Attorney Docket Number:	110729-8053.US01
Receipt Date:	28-NOV-2018
Filing Date:	06-OCT-2016
Time Stamp:	20:05:33
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$240
RAM confirmation Number	112918INTEFSW20061500
Deposit Account	500665
Authorized User	Christine Ortt

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:
37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	2018-11-28_IDS_110729-8053US01.PDF	1038510	no	4
			84ccddacba1690d01a1e6ff7e8534595596675b16		

Warnings:**Information:**

2	Fee Worksheet (SB06)	fee-info.pdf	30407	no	2
			7d8582a080e0262c9d8ce8223697178102721313		

Warnings:**Information:**

Total Files Size (in bytes):	1068917
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This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

22918 7590 12/12/2018
PERKINS COIE LLP - PAO General
P.O. BOX 1247
SEATTLE, WA 98111-1247

EXAMINER

YUEN, KAN

ART UNIT

PAPER NUMBER

2464

DATE MAILED: 12/12/2018

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/287,711	10/06/2016	Peiman Amini	110729-8053.US01	6154

TITLE OF INVENTION: DEDICATED BACKHAUL LINK FOR A ROBUST WIRELESS MESH NETWORK

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1000	\$0.00	\$0.00	\$1000	03/12/2019

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

22918 7590 12/12/2018
PERKINS COIE LLP - PAO General
P.O. BOX 1247
SEATTLE, WA 98111-1247

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/287,711	10/06/2016	Peiman Amini	110729-8053.US01	6154

TITLE OF INVENTION: DEDICATED BACKHAUL LINK FOR A ROBUST WIRELESS MESH NETWORK

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1000	\$0.00	\$0.00	\$1000	03/12/2019

EXAMINER	ART UNIT	CLASS-SUBCLASS
YUEN, KAN	2464	370-338000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1	
2	
3	

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. Fees submitted: ☐ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies _____

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

☐ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. Change in Entity Status (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/287,711	10/06/2016	Peiman Amin	110729-8053.US01	6154
22918	7590	12/12/2018	EXAMINER	
PERKINS COIE LLP - PAO General			YUEN, KAN	
P.O. BOX 1247			ART UNIT	
SEATTLE, WA 98111-1247			PAPER NUMBER	
			2464	
DATE MAILED: 12/12/2018				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

<i>Notice Requiring Inventor's Oath or Declaration</i>	Application No. 15/287,711	Applicant(s) Peiman Amini	
	Examiner YUEN, KAN	Art Unit 2464	

This notice is an attachment to the Notice of Allowability (PTOL-37), or the Notice of Allowability For A Design Application (PTOL-37D).

An inventor's oath or declaration in compliance with 37 CFR 1.63 or 1.64 executed by or with respect to each inventor has not yet been submitted.

An oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each inventor (for any inventor for which a compliant oath, declaration, or substitute statement has not yet been submitted) **MUST** be filed no later than the date on which the issue fee is paid. See 35 U.S.C. 115(f). Failure to timely comply will result in ABANDONMENT of this application.

A properly executed inventor's oath to declaration has not been received for the following inventor(s):

If applicant previously filed one or more oaths, declarations, or substitute statements, applicant may have received an informational notice regarding deficiencies therein.

The following deficiencies are noted:

INFORMAL ACTION PROBLEMS

- A properly executed inventor's oath or declaration has not been received for the following inventor(s): **Peiman Amini** and **Joseph Amalan Arul Emmanuel**.

Applicant may submit the inventor's oath or declaration at any time before the Notice of Allowance and Fee(s) Due, PTOL-85, is mailed.

Questions relating to this Notice should be directed to the Application Assistance Unit at 571-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability**Application No.**

15/287,711

Applicant(s)

Amini et al.

Examiner

KAN YUEN

Art Unit

2464

AIA Status

Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/28/2018.

☐ A declaration(s)/affidavit(s) under 37 CFR 1.130(b) was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are See Continuation Sheet. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a) ☐ All b) ☐ Some *c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☒ Information Disclosure Statements (PTO/SB/08);

Paper No./Mail Date _____.

3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.

4. ☒ Interview Summary (PTO-413);

Paper No./Mail Date. 20181128.

5. ☒ Examiner's Amendment/Comment

6. ☒ Examiner's Statement of Reasons for Allowance

7. ☐ Other _____.

/KAN YUEN/

Primary Examiner, Art Unit 2464

Continuation of 3. The allowed claim(s) is/are: 1-7,9-17,19-21 (Renumbered 1-18 Respectively)

Notice of Pre-AIA or AIA Status

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with HAN-WEI CHEN on 11/20/2018.

The application has been amended as follows:

1. (Currently Amended) A computer-implemented method for implementing a dedicated backhaul in a wireless mesh network formed with one or more mesh points, the method being performed by a first mesh point and comprising:

establishing a forward wireless communication with a second mesh point; ~~and~~

establishing a backhaul communication, separate from the forward wireless communication, with the second mesh point,

wherein the forward wireless communication is established using a wireless communication technology using frequency bands selected from the group consisting of: a 2.4 GHz band, and a 5 GHz band, and

wherein the backhaul communication is established using a communication technology selected from the group consisting of: a power line based communication, a 2.4GHz or 5 GHz radio frequency (RF) technology using a dedicated radio, and a sub-1GHz RF technology; and constructing a list of backhaul candidates, each backhaul candidate having a score indicative of an estimated quality of a potential link between the first mesh point and the second mesh point;
upon determining that a quality of service of the dedicated backhaul has dropped to below a predetermined threshold, establishing an alternative backhaul communication with the second mesh point using a backhaul candidate with the highest score on the list.

2. (Original) The method of claim 1, wherein the backhaul communication is dedicated for controlling packets.

3. (Original) The method of claim 1, further comprising: upon determining that a quality of service of the backhaul communication has dropped to below a predetermined threshold, redirecting backhaul traffic to the forward wireless communication.

4. (Original) The method of claim 1, further comprising: upon determining whether a quality of service of the dedicated backhaul has dropped to below a predetermined threshold, establishing an alternative backhaul communication with the second mesh point; and redirecting backhaul traffic to the alternative backhaul communication.

5. (Original) The method of claim 4, wherein the alternative backhaul communication is a direct link that links to the second mesh point through no other mesh point.

6. (Original) The method of claim 4, wherein the alternative backhaul communication is an indirect direct link that links to the second mesh point through another mesh point.

7. (Original) The method of claim 1, wherein different backhauls are used for different clients.

8. (Cancelled).

9. (Original) The method of claim 1, further comprising: measuring a plurality of qualitative parameters for the established backhaul communication; and causing the measured qualitative parameters to be transmitted to a controlling entity to facilitate a selection of a communication technology used for a backhaul communication between each two mesh points in the wireless mesh network.

10. (Original) The method of claim 1, further comprising: aggregating a plurality of backhaul links available on different communication technologies to create an aggregated backhaul communication.

11. (Currently Amended) The method of claim 10, wherein the aggregated backhaul links are aggregated on a media access control (MAC) layer or a transport layer

12. (Currently Amended) A computing device comprising: one or more processors, that implements a mesh point in a wireless mesh network formed with a plurality of mesh points, the computing device being configured to perform a method comprising:

establishing a forward wireless communication with a second mesh point; ~~and~~

establishing a backhaul communication, separate from the forward wireless communication, with the second mesh point,

wherein the forward wireless communication is established using a wireless communication technology using frequency bands selected from the group consisting of: a 2.4 GHz band, and a 5 GHz band, and

wherein the backhaul communication is established using a communication technology selected from the group consisting of: a power line based communication, a 2.4GHz or 5 GHz radio frequency (RF) technology using a dedicated radio, and a sub-1GHz RF technology; and

constructing a list of backhaul candidates, each backhaul candidate having a score indicative of an estimated quality of a potential link between the first mesh point and the second mesh point;

upon determining that a quality of service of the established backhaul has dropped to below a predetermined threshold, establishing an alternative backhaul communication with the second mesh point using a backhaul candidate with the highest score on the list.

13. (Original) The device of claim 12, wherein the backhaul communication is dedicated for controlling packets.

14. (Original) The device of claim 12, the method performed by the device further comprising: upon determining that a quality of service of the backhaul communication has dropped to below a predetermined threshold, redirecting backhaul traffic to the forward wireless communication.

15. (Currently Amended) The device of claim 12, the method performed by the device further comprising: upon determining whether a quality of service of the established backhaul has dropped to

below a predetermined threshold, establishing an alternative backhaul communication with the second mesh point; and redirecting backhaul traffic to the alternative backhaul communication.

16. (Original) The device of claim 15, wherein the alternative backhaul communication is a direct link that links to the second mesh point through no other mesh point.

17. (Original) The device of claim 15, wherein the alternative backhaul communication is an indirect direct link that links to the second mesh point through another mesh point.

18. (Cancelled).

19. (Original) The device of claim 12, the method performed by the device further comprising: measuring a plurality of qualitative parameters for the established backhaul communication; and causing the measured qualitative parameters to be transmitted to a controlling entity to facilitate a selection of a communication technology used for a backhaul communication between each two mesh points in the wireless mesh network.

20. (Original) The device of claim 12, the method performed by the device further comprising: aggregating a plurality of backhaul links available on different communication technologies to create an aggregated backhaul communication.

21. (Original) The device of claim 12, wherein the aggregated backhaul links are aggregated on a media access control (MAC) layer or a transport layer.

Allowable Subject Matter (Reason for Allowance)

2. Claims 1-7, 9-17, 19-21 are allowed. The prior art of record fails to disclose the features wherein the backhaul communication is established using a communication technology selected from the group consisting of: a power line based communication, a 2.4GHz or 5 GHz radio frequency (RF) technology using a dedicated radio, and a sub-1GHz RF technology; and constructing a list of backhaul candidates, each backhaul candidate having a score indicative of an estimated quality of a potential link between the first mesh point and the second mesh point; upon determining that a quality of service of the dedicated backhaul has dropped to below a predetermined threshold, establishing an alternative backhaul communication with the second mesh point using a backhaul candidate with the highest score on the list, as recited in claim 1 and similarly recited in claim 12.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAN YUEN whose telephone number is (571)270-1413. The examiner can normally be reached on Monday - Friday 11pm-7pm.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available

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through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KAN YUEN/

Primary Examiner, Art Unit 2464

<i>Examiner-Initiated Interview Summary</i>	Application No. 15/287,711	Applicant(s) Amini et al.	
	Examiner KAN YUEN	Art Unit 2464	AIA Status Yes

All participants (applicant, applicant's representative, PTO personnel):

(1) KAN YUEN. (3) _____

(2) Han-Wei Chen. (4) _____

Date of Interview: 20 November 2018.

Type: ☒ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☒ No
If Yes, brief description: _____

Issues Discussed ☐ 101 ☐ 112 ☐ 102 ☐ 103 ☒ Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 1.

Identification of prior art discussed: Gokturk et al. (Pub No.: 2016/0192203) and Nolan et al. (Pub No.: 2017/0238189).

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

See Continuation Sheet.

Applicant recordation instructions: It is not necessary for applicant to provide a separate record of the substance of interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☒ Attachment

/KAN YUEN/ Primary Examiner, Art Unit 2464	
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Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Discussed about Examiner's amendment as outlined in the correspondent sheet. Particularly, Attorney Chen argues that the references of Gokturk and Nolan failed to disclose the feature selected from a group consisting of: power line based communication, a 2.4 Ghz or 5 Ghz using a dedicated radio and a sub-1 Ghz RF technology. In the interest of expedite case prosecution, the Examiner suggested the applicant to roll up claim 8 into claims 1 and 12 to put the case in condition for allowance.

<i>Index of Claims</i> 	Application/Control No. 15/287,711	Applicant(s)/Patent Under Reexamination Amini et al.
	Examiner KAN YUEN	Art Unit 2464

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS										
☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47										
CLAIM			DATE							
Final	Original	11/28/2018								
1	1	=								
2	2	=								
3	3	=								
4	4	=								
5	5	=								
6	6	=								
7	7	=								
	8	=								
8	9	=								
9	10	=								
10	11	=								
11	12	=								
12	13	=								
13	14	=								
14	15	=								
15	16	=								
16	17	=								
	18	=								
17	19	=								
18	20	=								
19	21	=								

Issue Classification 	Application/Control No. 15/287,711	Applicant(s)/Patent Under Reexamination Amini et al.
	Examiner KAN YUEN	Art Unit 2464

CPC						
Symbol					Type	Version
H04W	/	72	/	0453	F	2013-01-01
H04L	/	12	/	44	I	2013-01-01
H04L	/	43	/	16	I	2013-01-01
H04L	/	45	/	20	I	2013-01-01
H04W	/	4	/	023	I	2013-01-01
H04W	/	24	/	08	I	2013-01-01
H04W	/	36	/	30	I	2013-01-01
H04W	/	36	/	36	I	2013-01-01
H04L	/	43	/	0888	I	2013-01-01
H04L	/	43	/	0894	I	2013-01-01
H04L	/	43	/	10	I	2013-01-01
H04W	/	24	/	06	I	2013-01-01
H04W	/	40	/	12	I	2013-01-01
H04W	/	76	/	15	I	2018-02-01
H04W	/	84	/	18	A	2013-01-01
H04W	/	84	/	12	A	2013-01-01
H04W	/	24	/	04	A	2013-01-01
H04W	/	72	/	085	A	2013-01-01
H04W	/	76	/	10	A	2018-02-01

CPC Combination Sets							
Symbol				Type	Set	Ranking	Version
	/		/				

NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 19	
/KAN YUEN/ Primary Examiner, Art Unit 2464 (Primary Examiner) _____ (Date) _____		28 November 2018 O.G. Print Claim(s) 1	O.G. Print Figure 19

Issue Classification 	Application/Control No. 15/287,711	Applicant(s)/Patent Under Reexamination Amini et al.
	Examiner KAN YUEN	Art Unit 2464

INTERNATIONAL CLASSIFICATION			
CLAIMED			
H04W	/	72	/ 04
NON-CLAIMED			
	/		/

US ORIGINAL CLASSIFICATION	
CLASS	SUBCLASS

CROSS REFERENCES(S)						
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)					

NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 19	
/KAN YUEN/ Primary Examiner, Art Unit 2464 (Primary Examiner) _____ (Date) _____		28 November 2018 O.G. Print Claim(s) 1	O.G. Print Figure 19

Issue Classification 	Application/Control No. 15/287,711	Applicant(s)/Patent Under Reexamination Amini et al.
	Examiner KAN YUEN	Art Unit 2464

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47															
CLAIMS															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	9	10	17	19										
2	2	10	11	18	20										
3	3	11	12	19	21										
4	4	12	13												
5	5	13	14												
6	6	14	15												
7	7	15	16												
	8	16	17												
8	9		18												

NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 19	
/KAN YUEN/ Primary Examiner, Art Unit 2464 (Primary Examiner) _____ (Date) _____		28 November 2018 O.G. Print Claim(s) 1	O.G. Print Figure 19

Search Notes 	Application/Control No. 15/287,711	Applicant(s)/Patent Under Reexamination Amini et al.
	Examiner KAN YUEN	Art Unit 2464

CPC - Searched*		
Symbol	Date	Examiner
H04L12/44 ; H04L43/0888 ; H04L43/0894 ; H04L43/10 ; H04L43/16 ; H04L45/20 ; H04W24/04 ; H04W24/06 ; H04W24/08 ; H04W36/30 ; H04W36/36 ; H04W40/12 ; H04W4/023 ; H04W72/0453 ; H04W72/085 ; H04W76/10 ; H04W76/15 ; H04W84/12 ; H04W84/18	11/28/2018	KY

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
EAST SEARCH; MANUAL SEARCH H04L12/44	11/28/2018	KY
INVENTORSHIP SEARCH	11/28/2018	KY

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
	INTERFERENCE SEARCH PRINTOUT (SEE SEARCH PRINTOUT)	11/28/2018	KY

/KAN YUEN/ Primary Examiner, Art Unit 2464	
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FOR DISCUSSION ONLY – NOT TO BE ENTERED ON THE RECORD**Claim Rejection 103 -**

Applicant's claim 1 recites, in part:

wherein **the backhaul communication** is established using a communication technology selected from **the group consisting of**: a power line based communication, a 2.4GHz or 5 GHz radio frequency (RF) technology using a dedicated radio, and a sub-1GHz RF technology.

In *Gillette Co. v. Energizer Holdings Inc.*, 405 F.3d 1367, 1371-73, 74 USPQ2d 1586, 1589-91 (Fed. Cir. 2005), the court noted that **the phrase “group consisting of” is a closed term**, which is often used in claim drafting to signal a “Markush group” that is by its nature closed. *See, also*, M.P.E.P. § 2111.03. A claim element defined by selection from a group of alternatives (a Markush grouping; *see* M.P.E.P. § 2117 and § 2173.05(h)) requires **selection from a closed group “consisting of”** (rather than “comprising” or “including”) the alternative members. *Abbott Labs. v. Baxter Pharmaceutical Products Inc.*, 334 F.3d 1274, 1280, 67 USPQ2d 1191, 1196-97 (Fed. Cir. 2003).

With the above in mind, in the Office Action, the Examiner points to Gatewood, Gokturk, and Nolan, for rejecting the above-recited features of claim 1. *See* Office Action at pp. 3-5.

However, the rejection relies on cherry-picking from the three cited references each member of the communication technology recited in Applicant's group. That is to say, the Examiner has treated the recited group language as open-ended—an interpretation that is against *Gillette* and *Abbott Labs*, as explained above. Applicant submits that none of the cited references explicitly disclose a **“backhaul communication”** that is established using a communication technology “selected from **the group consisting of**: a power line based communication, a 2.4GHz or 5 GHz radio frequency (RF) technology using a dedicated radio, and a sub-1GHz RF technology.”

Indeed, the Examiner has not cited anywhere in the cited art references that discloses a **closed group** of “a power line based communication, a 2.4GHz or 5 GHz radio frequency (RF) technology using a dedicated radio, and a sub-1GHz RF technology,” much less “a backhaul communication is established using a communication technology selected from the group . . .

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	("20120224481").PN.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	OR	OFF	2018/12/03 16:06
L2	2	("20150018028").PN.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	OR	OFF	2018/12/03 16:06
L3	2	("20170164323").PN.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	OR	OFF	2018/12/03 16:07
S1	1	15/287711	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 12:57
S2	133928	((H04L12/44 OR H04L43/0888 OR H04L43/0894 OR H04L43/10 OR H04L43/16 OR H04L45/20 OR H04W24/04 OR H04W24/06 OR H04W24/08 OR H04W36/30 OR H04W36/36 OR H04W40/12 OR H04W4/023 OR H04W72/0453 OR H04W72/085 OR H04W76/10 OR H04W76/15 OR H04W84/12 OR H04W84/18).CPC.)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 13:08
S3	1	15/287711 (backhaul and forward\$4 near3 link)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 13:08
S4	632	(backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) near7 (link or channel or transmission or connection) with mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 13:41
S5	56	(redundan\$4 or alternative or second\$4 or supplement\$4 or standby or backup or spar\$3 or slave or protect\$3) near4 (backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) near7 (link or channel or transmission or connection) with mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 13:43
S6	38	S2 S5	US-PGPUB; USPAT; USOCR;	AND	ON	2018/03/19 13:46

			EPO; DERWENT			
S7	38	S2 S5	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 13:46
S9	111	(redundan\$4 or alternative or second\$4 or supplement\$4 or standby or backup or spar\$3 or slave or protect\$3) near8 (backhaul\$4 or back- haul\$4 or (back adj2 haul\$4)) with mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 14:18
S10	57	S2 S9	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 14:18
S11	57	S2 S9	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 14:18
S12	1	15/002383 (connection with reserv\$6)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 18:19
S13	1140	(LTE near6 (connection or interface or communication)) with (backhaul\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 19:58
S14	226	(LTE near6 (connection or interface or communication)) with ("2.4ghz" or "2.4 ghz" or "5 ghz" or "5ghz")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 19:58
S15	18	S13 S14	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 19:59
S16	2	15/002383 (backhaul or (back adj2 haul\$4))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 19:59
S17	1	13/787313	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 20:29
S18	1	13/787313 (backhaul near3 link same (packet or control))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 21:41
S19	1	15/002383 (aggregat\$5 near8 backhaul)	US-PGPUB; USPAT;	AND	ON	2018/03/19 22:23

			USOCR; EPO; DERWENT			
S20	140	aggregat\$5 with (backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 22:24
S21	1	13/787313 (processing near2 system or "520") and ("532")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 23:18
S22	130	(relay\$4 or intermediat\$4) with (backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/19 23:40
S23	286	(select\$4 or choos\$4) near9 (relay\$4 or intermediat\$4) with (backhaul\$4 or back-haul\$4 or (back adj2 haul\$4))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/20 11:30
S24	12	mesh with (backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) S23	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/20 11:30
S25	2	("20100260146").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/20 11:36
S32	636	(backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with (powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/27 16:18
S33	18	(backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with (powerline or power-line or (power adj2 line)) with (ghz)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/27 16:20
S34	50	(backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with (powerline or power-line or (power adj2 line)) with (ghz or giga\$4 or \$ghz)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/27 16:20
S35	50	(backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with (powerline or power-line or (power adj2 line)) with (ghz or giga\$4 or \$ghz)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/27 16:20
S36	4	15/287711	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/27 16:21

S37	145	(bs or ap or (base adj2 station) or (access adj2 (point or node))) with (powerline or power-line or (power adj2 line)) with (ghz or giga\$4 or \$ghz)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/27 21:56
S38	4	15/287711	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/27 22:09
S39	150	(repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (powerline or power-line or (power adj2 line)) with (ghz or giga\$4 or \$ghz)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/27 22:11
S40	712	(repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (powerline or power-line or (power adj2 line)) with (select\$4 or choos\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 11:15
S41	278672	(repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with ("g" or ghz or "2.4" or "5") with (select\$4 or choos\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 11:17
S42	168	S40 S41	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 11:35
S43	712	(repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (powerline or power-line or (power adj2 line)) with (select\$4 or choos\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 15:49
S44	278672	(repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with ("g" or ghz or "2.4" or "5") with (select\$4 or choos\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 15:49
S45	168	S43 S44	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 15:49
S46	0	15/287711 S45	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:04
S47	0	15/287711 (select\$4 with power)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:04
S48	4	15/287711	US-PGPUB; USPAT; USOCR; EPO;	AND	ON	2018/09/28 16:04

			DERWENT			
S49	4	15/287711 select\$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:05
S50	815	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4- ghz" or "5ghz" or "5 ghz" or "5-ghz")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:10
S51	50	(select\$4 or choos\$4) with (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:12
S52	1	15/287711 S50	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:13
S53	241	(select\$4 or choos\$4) same (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:13
S54	89	S50 S53	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:14
S55	44544	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz" or (sub adj2 ("1ghz" or "1 ghz" or "1-ghz")))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 16:41
S56	0	(select\$4 or choos\$4) same (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz") same (sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 17:55
S57	4	(select\$4 or choos\$4) same (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz") same (sub adj2 ("1ghz" or "1 ghz" or "1-ghz") or sub-1\$5)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 17:56
S58	4	(select\$4 or choos\$4) same (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz") same (sub adj2 ("1ghz" or "1 ghz" or "1-ghz") or sub-1\$5 or sub- 1ghz or sub-1-ghz)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 17:57
S59	86	(mesh or repeater or (rang\$4 adj2	US-PGPUB;	AND	ON	2018/09/28

		extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same (select\$4 or choos\$4) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz" or (sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))) same (plc or powerline or power-line or (power adj2 line))	USPAT; USOCR; EPO; DERWENT			18:05
S60	0	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same (backhual\$4) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz" or (sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 18:29
S61	39	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same (backhaul\$4) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz" or (sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/28 18:29
S62	4	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same (backhaul\$4) same ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/29 17:34
S63	5	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (backhaul\$4) with ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/29 17:35
S64	4	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (backhaul\$4) with ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/29 17:36
S65	4	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (backhaul\$4) with ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz" or "1G" or "1-G"))) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/29 17:37
S66	7	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (backhaul\$4) with ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz" or "1G" or "1-G"))) select\$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/29 17:38
S67	4	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or	US-PGPUB; USPAT; USOCR;	AND	ON	2018/09/29 17:43

		node))) with ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz" or "1G" or "1-G"))) same (plc or powerline or power-line or (power adj2 line)) same ("5ghz" or "5 ghz" or "5-ghz" or "5G" or "5-G"))	EPO; DERWENT			
S68	4	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz" or "1G" or "1-G"))) same (plc or powerline or power-line or (power adj2 line)) same ("5ghz" or "5 ghz" or "5-ghz" or "5G" or "5-G"))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/29 17:44
S69	1	"14757422" (interface with channel)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/29 18:11
S70	1	15/504606 (spectrum adj4 database) same ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz" or "1G" or "1-G")))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/09/29 18:31
S76	6	15/287711	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S77	158829	((H04L12/44 OR H04L43/0888 OR H04L43/0894 OR H04L43/10 OR H04L43/16 OR H04L45/20 OR H04W24/04 OR H04W24/06 OR H04W24/08 OR H04W36/30 OR H04W36/36 OR H04W40/12 OR H04W4/023 OR H04W72/0453 OR H04W72/085 OR H04W76/10 OR H04W76/15 OR H04W84/12 OR H04W84/18).CPC.)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S78	1	15/287711 (backhaul and forward\$4 near3 link)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S79	712	(backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) near7 (link or channel or transmission or connection) with mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S80	70	(redundan\$4 or alternative or second\$4 or supplement\$4 or standby or backup or spar\$3 or slave or protect\$3) near4 (backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) near7 (link or channel or transmission or connection) with mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S81	47	S77 S80	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43

S82	47	S77 S80	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S83	136	(redundan\$4 or alternative or second\$4 or supplement\$4 or standby or backup or spar\$3 or slave or protect\$3) near8 (backhaul\$4 or back- haul\$4 or (back adj2 haul\$4)) with mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S84	71	S77 S83	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S85	71	S77 S83	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S86	2	15/002383 (connection with reserv\$6)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S87	1435	(LTE near6 (connection or interface or communication)) with (backhaul\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S88	395	(LTE near6 (connection or interface or communication)) with ("2.4ghz" or "2.4 ghz" or "5 ghz" or "5ghz")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S89	34	S87 S88	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S90	4	15/002383 (backhaul or (back adj2 haul\$4))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S91	1	13/787313	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S92	1	13/787313 (backhaul near3 link same (packet or control))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S93	2	15/002383 (aggregat\$5 near8 backhaul)	US-PGPUB; USPAT; USOCR; EPO;	AND	ON	2018/11/28 19:43

			DERWENT			
S94	154	aggregat\$5 with (backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S95	1	13/787313 (processing near2 system or "520") and ("532")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S96	143	(relay\$4 or intermediat\$4) with (backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S97	317	(select\$4 or choos\$4) near9 (relay\$4 or intermediat\$4) with (backhaul\$4 or back-haul\$4 or (back adj2 haul\$4))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S98	12	mesh with (backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) S97	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S99	2	("20100260146").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/11/28 19:43
S100	642	(backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with (powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S101	19	(backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with (powerline or power-line or (power adj2 line)) with (ghz)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S102	51	(backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with (powerline or power-line or (power adj2 line)) with (ghz or giga\$4 or \$ghz)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S103	51	(backhaul\$4 or back-haul\$4 or (back adj2 haul\$4)) with (powerline or power-line or (power adj2 line)) with (ghz or giga\$4 or \$ghz)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S104	6	15/287711	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S105	146	(bs or ap or (base adj2 station) or (access adj2 (point or node))) with	US-PGPUB; USPAT;	AND	ON	2018/11/28 19:43

		(powerline or power-line or (power adj2 line)) with (ghz or giga\$4 or \$ghz)	USOCR; EPO; DERWENT			
S106	6	15/287711	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S107	151	(repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (powerline or power-line or (power adj2 line)) with (ghz or giga\$4 or \$ghz)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S108	718	(repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (powerline or power-line or (power adj2 line)) with (select\$4 or choos\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S109	281562	(repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with ("g" or ghz or "2.4" or "5") with (select\$4 or choos\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S110	170	S108 S109	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S111	718	(repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (powerline or power-line or (power adj2 line)) with (select\$4 or choos\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S112	281562	(repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with ("g" or ghz or "2.4" or "5") with (select\$4 or choos\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S113	170	S111 S112	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S114	0	15/287711 S113	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S115	0	15/287711 (select\$4 with power)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S116	6	15/287711	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S117	6	15/287711 select\$4	US-PGPUB;	AND	ON	2018/11/28

			USPAT; USOCR; EPO; DERWENT			19:43
S118	875	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S119	53	(select\$4 or choos\$4) with (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S120	1	15/287711 S118	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S121	248	(select\$4 or choos\$4) same (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S122	92	S118 S121	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S123	45486	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz" or (sub adj2 ("1ghz" or "1 ghz" or "1-ghz")))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S124	0	(select\$4 or choos\$4) same (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz") same (sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S125	4	(select\$4 or choos\$4) same (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz") same (sub adj2 ("1ghz" or "1 ghz" or "1-ghz") or sub-1\$5)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S126	4	(select\$4 or choos\$4) same (plc or powerline or power-line or (power adj2 line)) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz") same (sub adj2 ("1ghz" or "1 ghz" or "1-ghz") or sub-1\$5 or sub-1ghz or sub-1-ghz)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S127	89	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or	US-PGPUB; USPAT; USOCR;	AND	ON	2018/11/28 19:43

		(node))) same (select\$4 or choos\$4) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz" or (sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))) same (plc or powerline or power-line or (power adj2 line))	EPO; DERWENT			
S128	0	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same (backhual\$4) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz" or (sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S129	41	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same (backhaul\$4) same (ghz or "2.4ghz" or "2.4 ghz" or "2.4-ghz" or "5ghz" or "5 ghz" or "5-ghz" or (sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S130	4	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same (backhaul\$4) same ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S131	5	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (backhaul\$4) with ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S132	4	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (backhaul\$4) with ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz"))) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S133	4	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (backhaul\$4) with ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz" or "1G" or "1-G"))) same (plc or powerline or power-line or (power adj2 line))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S134	7	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with (backhaul\$4) with ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz" or "1G" or "1-G"))) select\$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S135	4	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) with ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz" or "1G" or "1-G"))) select\$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43

		same (plc or powerline or power-line or (power adj2 line)) same ("5ghz" or "5 ghz" or "5-ghz" or "5G" or "5-G")				
S136	4	(mesh or repeater or (rang\$4 adj2 extend\$4) or bs or ap or (base adj2 station) or (access adj2 (point or node))) same ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz" or "1G" or "1-G")))) same (plc or powerline or power-line or (power adj2 line)) same ("5ghz" or "5 ghz" or "5-ghz" or "5G" or "5-G")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S137	1	"14757422" (interface with channel)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S138	1	15/504606 (spectrum adj4 database) same ((sub adj2 ("1ghz" or "1 ghz" or "1-ghz" or "1G" or "1-G"))))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 19:43
S139	2	15/287711 (establish\$4 near9 forward\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 20:05
S140	6	15/287711 (establish\$4 near9 backhaul)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 20:06
S141	2	S139 S140	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/11/28 20:07

EAST Search History (I nterference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S26	4983	(establish\$4 near5 forward\$4).clm.	US-PGPUB; USPAT	AND	ON	2018/03/20 14:05
S27	62	(establish\$4 near5 backhaul near4 communication).clm.	US-PGPUB; USPAT	AND	ON	2018/03/20 14:05
S28	2	S26 S27	US-PGPUB; USPAT	AND	ON	2018/03/20 14:05
S29	2	S26 S27	US-PGPUB; USPAT	AND	ON	2018/03/20 14:06
S30	3828	(wireless near4 technolog\$4).clm.	US-PGPUB; USPAT	AND	ON	2018/03/20 14:06
S31	1	S29 S30	US-PGPUB; USPAT	AND	ON	2018/03/20 14:07
S71	5127	(establish\$4 near5 forward\$4).clm.	US-PGPUB; USPAT	AND	ON	2018/09/30 20:27
S72	67	(establish\$4 near5 backhaul near4 communication).clm.	US-PGPUB; USPAT	AND	ON	2018/09/30 20:27
S73	2	S71 S72	US-PGPUB;	AND	ON	2018/09/30

			USPAT			20:27
S74	4045	(wireless near4 technolog\$4).clm.	US-PGPUB; USPAT	AND	ON	2018/09/30 20:27
S75	1	S73 S74	US-PGPUB; USPAT	AND	ON	2018/09/30 20:28
S142	16717	(second\$4 near4 mesh).clm.	US-PGPUB; USPAT	AND	ON	2018/11/28 19:42
S143	1502	(backhaul\$4 near5 communicat\$4).clm.	US-PGPUB; USPAT	AND	ON	2018/11/28 19:42
S144	21	S142 S143	US-PGPUB; USPAT	AND	ON	2018/11/28 19:42
S145	46739	(power adj3 line).clm.	US-PGPUB; USPAT	AND	ON	2018/11/28 19:42
S146	1	S144 S145	US-PGPUB; USPAT	AND	ON	2018/11/28 19:43
S147	5153	(establish\$4 near5 forward\$4).clm.	US-PGPUB; USPAT	AND	ON	2018/11/28 19:43
S148	70	(establish\$4 near5 backhaul near4 communication).clm.	US-PGPUB; USPAT	AND	ON	2018/11/28 19:43
S149	3	S147 S148	US-PGPUB; USPAT	AND	ON	2018/11/28 19:43
S150	3	S147 S148	US-PGPUB; USPAT	AND	ON	2018/11/28 19:43
S151	4119	(wireless near4 technolog\$4).clm.	US-PGPUB; USPAT	AND	ON	2018/11/28 19:43
S152	1	S150 S151	US-PGPUB; USPAT	AND	ON	2018/11/28 19:43
S153	5153	(establish\$4 near5 forward\$4).clm.	US-PGPUB; USPAT	AND	ON	2018/11/28 19:43
S154	70	(establish\$4 near5 backhaul near4 communication).clm.	US-PGPUB; USPAT	AND	ON	2018/11/28 19:43
S155	3	S153 S154	US-PGPUB; USPAT	AND	ON	2018/11/28 19:43
S156	4119	(wireless near4 technolog\$4).clm.	US-PGPUB; USPAT	AND	ON	2018/11/28 19:43
S157	1	S155 S156	US-PGPUB; USPAT	AND	ON	2018/11/28 19:43

12/ 3/ 2018 4:07:53 PM

C:\Users\kyuen\Documents\EAST\Workspaces\15287711.wsp

Doc code: IDS

PTO/SB/08a (03-15)

Doc description: Information Disclosure Statement (IDS) Filed

Approved for use through 07/31/2016. OMB 0651-0031

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Application Number	15287711
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8053.US01

U.S.PATENTS

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Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	20120224481	A1	2012-09-06	BABIAZ, et al.	
	2	20150018028	A1	2015-01-15	UPLENCHWAR, et al.	
	3	20170164323	A1	2017-06-08	MARKHOVSKY, et al.	

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STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	15287711
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
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Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
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Examiner Signature	/KAN YUEN/	Date Considered	12/03/2018
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	15287711
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8053.US01

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

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See attached certification statement.

✓ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

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Signature	/Han-Wei Chen/	Date (YYYY-MM-DD)	2018-11-28
Name/Print	Han-Wei Chen	Registration Number	75350

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Application	Document	Mailroom Date	Attorney Docket No.
15287711	NOA	12/12/2018	110729-8053.US01
	INTV.SUM.EX	12/12/2018	110729-8053.US01
	OA.APPENDIX	12/12/2018	110729-8053.US01
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/287,711	10/06/2016	Peiman Amini	110729-8053.US01	6154
7590 12/21/2018 PERKINS COIE LLP - PAO General P.O. BOX 1247 SEATTLE, WA 98111-1247			EXAMINER YUEN, KAN	
			ART UNIT	PAPER NUMBER
			2464	
			NOTIFICATION DATE	DELIVERY MODE
			12/21/2018	ELECTRONIC

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The Notice Requiring Inventor's Oath or Declaration mailed on 12/12/18 was sent in error, and is hereby withdrawn. The time period set forth in the Notice of Allowance and Fee(s) Due to file a reply and pay the required fees continues to run from the mailing date of the Notice of Allowance and Fee(s) Due. Any time period set forth in the Notice of Allowability continues to run from the mailing date of the Notice of Allowability.

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15287711	M327	12/21/2018	110729-8053.US01

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	15287711
	Filing Date	2016-10-06
	First Named Inventor	Peiman Amini
	Art Unit	2464
	Examiner Name	Kan Yuen
	Attorney Docket Number	110729-8053.US01

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	1	9467929	B2	2016-10-11	SEKINE	
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	1	20090116407	A1	2009-05-07	SHII	

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Application Number	15287711
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8053.US01

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
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STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	15287711
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8053.US01

CERTIFICATION STATEMENT

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☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

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Signature	/Han-Wei Chen/	Date (YYYY-MM-DD)	2019-01-04
Name/Print	Han-Wei Chen	Registration Number	75350

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Electronic Patent Application Fee Transmittal

Application Number:	15287711			
Filing Date:	06-Oct-2016			
Title of Invention:	DEDICATED BACKHAUL LINK FOR A ROBUST WIRELESS MESH NETWORK			
First Named Inventor/Applicant Name:	Peiman Amini			
Filer:	Han-Wei Chen/Christine Ort			
Attorney Docket Number:	110729-8053.US01			
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	1806	1	240	240
Total in USD (\$)				240

Electronic Acknowledgement Receipt

EFS ID:	34777102
Application Number:	15287711
International Application Number:	
Confirmation Number:	6154
Title of Invention:	DEDICATED BACKHAUL LINK FOR A ROBUST WIRELESS MESH NETWORK
First Named Inventor/Applicant Name:	Peiman Amini
Customer Number:	22918
Filer:	Han-Wei Chen/Christine Ortt
Filer Authorized By:	Han-Wei Chen
Attorney Docket Number:	110729-8053.US01
Receipt Date:	07-JAN-2019
Filing Date:	06-OCT-2016
Time Stamp:	13:32:14
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$240
RAM confirmation Number	010719INTEFSW13325700
Deposit Account	500665
Authorized User	Christine Ortt

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:
37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	2019-01-07_IDS_110729-8053US01.PDF	1038492	no	4
			1f4c07e3e1ff118608dce79a89aac2d8be19458		

Warnings:**Information:**

2	Fee Worksheet (SB06)	fee-info.pdf	30407	no	2
			5e3d899d843410fd36ee6f225e91bf0aa52e7c3af		

Warnings:**Information:**

Total Files Size (in bytes):	1068899
-------------------------------------	---------

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PRINTER RUSH
(PTO ASSISTANCE)

Application: 15287711

Examiner: Yuen

GAU: 2464

From: Kimberly Payne

Location: RTEM

Creation Date: 01/08/2019

Week Date: 12/10/2018

<u>DOC CODE</u>	<u>DOC DATE</u>	<u>MISCELLANEOUS</u>
☐ 1449 ☒ IDS ☐ CLM ☐ IIFW/FWCLM ☐ SRFW ☐ DRW ☐ OATH ☐ 312 ☐ SPEC	<u>01/07/2019</u>	☐ Continuing Data ☐ Foreign Priority ☐ Document Legibility ☐ Fees ☐ Petition (TC) ☐ Other

[RUSH] Message:

Please respond to the 1-7-19 IDS.

Thank You,
KP

[XRUSH] Response:

Initials: _____



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/287,711	10/06/2016	Peiman Amini	110729-8053.US01	6154
22918	7590	01/23/2019	EXAMINER	
PERKINS COIE LLP - PAO General			YUEN, KAN	
P.O. BOX 1247				
SEATTLE, WA 98111-1247				
			ART UNIT	PAPER NUMBER
			2464	
			NOTIFICATION DATE	DELIVERY MODE
			01/23/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentprocurement@perkinscoie.com

Corrected
Notice of Allowability

Application No.
15/287,711

Applicant(s)
Amini et al.

Examiner
KAN YUEN

Art Unit
2464

AIA Status
Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/8/2019.

☐ A declaration(s)/affidavit(s) under 37 CFR 1.130(b) was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are See Continuation Sheet . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a) ☐ All b) ☐ Some *c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☒ Information Disclosure Statements (PTO/SB/08);

Paper No./Mail Date _____.

3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.

4. ☐ Interview Summary (PTO-413);

Paper No./Mail Date _____.

5. ☐ Examiner's Amendment/Comment

6. ☐ Examiner's Statement of Reasons for Allowance

7. ☐ Other _____.

/KAN YUEN/
Primary Examiner, Art Unit 2464

Continuation of 3. The allowed claim(s) is/are: 1-7,9-17,19-21 (Renumbered 1-18 Respectively)

Doc code: IDS

PTO/SB/08a (03-15)

Doc description: Information Disclosure Statement (IDS) Filed

Approved for use through 07/31/2016. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)

Application Number	15287711
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8053.US01

U.S.PATENTS						Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	9467929	B2	2016-10-11	SEKINE	
	2	9942709	B2	2018-04-10	SUNG	

If you wish to add additional U.S. Patent citation information please click the Add button.

Add

U.S.PATENT APPLICATION PUBLICATIONS						Remove
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20090116407	A1	2009-05-07	SHII	

If you wish to add additional U.S. Published Application citation information please click the Add button.

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FOREIGN PATENT DOCUMENTS								Remove
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ^{2j}	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1							

If you wish to add additional Foreign Patent Document citation information please click the Add button.

Add

NON-PATENT LITERATURE DOCUMENTS							Remove
---------------------------------	--	--	--	--	--	--	--------

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	15287711
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8053.US01

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1		

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature	/KAN YUEN/	Date Considered	01/17/2019
--------------------	------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)

Application Number	15287711
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8053.US01

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).



See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Han-Wei Chen/	Date (YYYY-MM-DD)	2019-01-04
Name/Print	Han-Wei Chen	Registration Number	75350

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

PRINTER RUSH
(PTO ASSISTANCE)

Application: 15287711

Examiner: Yuen

GAU: 2464

From: Kimberly Payne

Location: RTEM

Creation Date: 01/08/2019

Week Date: 12/10/2018

<u>DOC CODE</u>	<u>DOC DATE</u>	<u>MISCELLANEOUS</u>
☐ 1449	<u>01/07/2019</u>	☐ Continuing Data
☒ IDS		☐ Foreign Priority
☐ CLM		☐ Document Legibility
☐ IIFW/FWCLM		☐ Fees
☐ SRFW		☐ Petition (TC)
☐ DRW		☐ Other
☐ OATH		
☐ 312		
☐ SPEC		

[RUSH] Message:

Please respond to the 1-7-19 IDS.

Thank You,
KP

[XRUSH] Response:

The IDS has been considered and
initialed.

/K.Y/
Initials: _____

To: patentprocurement@perkinscoie.com,
From: PAIR_eOfficeAction@uspto.gov
Cc: PAIR_eOfficeAction@uspto.gov
Subject: Private PAIR Correspondence Notification for Customer Number 22918

Jan 23, 2019 04:22:41 AM

Dear PAIR Customer:

PERKINS COIE LLP - PAO General
P.O. BOX 1247
SEATTLE, WA 98111-1247
UNITED STATES

The following USPTO patent application(s) associated with your Customer Number, 22918 , have new outgoing correspondence. This correspondence is now available for viewing in Private PAIR.

The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

Disclaimer:

The list of documents shown below is provided as a courtesy and is not part of the official file wrapper. The content of the images shown in PAIR is the official record.

Application	Document	Mailroom Date	Attorney Docket No.
15287711	NOA	01/23/2019	110729-8053.US01
	1449	01/23/2019	110729-8053.US01

To view your correspondence online or update your email addresses, please visit us anytime at <https://portal.uspto.gov/secure/myportal/privatepair>.

If you have any questions, please email the Electronic Business Center (EBC) at EBC@uspto.gov with 'e-Office Action' on the subject line or call 1-866-217-9197 during the following hours:

Monday - Friday 6:00 a.m. to 12:00 a.m.

Thank you for prompt attention to this notice,

UNITED STATES PATENT AND TRADEMARK OFFICE
PATENT APPLICATION INFORMATION RETRIEVAL SYSTEM

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

22918 7590 12/12/2018
PERKINS COIE LLP - PAO General
P.O. BOX 1247
SEATTLE, WA 98111-1247

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

Christine Ortl	(Typed or printed name)
/Christine Ortl/	(Signature)
03/12/2019	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/287,711	10/06/2016	Peiman Amini	110729-8053.U/S01	6154

TITLE OF INVENTION: DEDICATED BACKHAUL LINK FOR A ROBUST WIRELESS MESH NETWORK

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1000	\$0.00	\$0.00	\$1000	03/12/2019

EXAMINER	ART UNIT	CLASS-SUBCLASS
YUEN, KAN	2464	370-338000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Perkins Coie LLP
2
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

NETGEAR, INC.

SAN JOSE, CALIFORNIA

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. Fees submitted: ☒ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies _____

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

☒ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. 50-0665

5. Change in Entity Status (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____/Han-Wei Chen/

Date 3/11/2019

Typed or printed name Han-Wei Chen

Registration No. 75,350

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Peiman AMINI et al.

Application No.: 15/287,711

Confirmation No.: 6154

Filed: October 6, 2016

Art Unit: 2464

For: DEDICATED BACKHAUL LINK FOR A
ROBUST WIRELESS MESH NETWORK

Examiner: Kan Yuen

Commissioner for Patents -- **MAIL STOP ISSUE FEE**

P.O. Box 1450

Alexandria, Virginia 22313-1450

COMMENTS ON STATEMENT OF REASONS FOR ALLOWANCE

Dear Sir:

In the Notice of Allowability mailed December 12, 2018, the Examiner allowed Claims 1-7, 9-17 and 19-21. Although Applicant agrees with the Examiner's conclusion that these claims are allowable, Applicant notes that the claims may be allowable for reasons other than those identified by the Examiner and does not concede that the Examiner's characterizations of the terms of the claims and the prior art are correct.

Dated: 3/11/2019

Respectfully submitted,

By /Han-Wei Chen/

Han-Wei Chen

Registration No.: 75,350

PERKINS COIE LLP

P.O. Box 1247

Seattle, WA 98111-1247

Phone: (650) 838-4300

Fax: (206) 359-7198

Attorney for Applicant

Electronic Patent Application Fee Transmittal

Application Number:	15287711			
Filing Date:	06-Oct-2016			
Title of Invention:	DEDICATED BACKHAUL LINK FOR A ROBUST WIRELESS MESH NETWORK			
First Named Inventor/Applicant Name:	Peiman Amini			
Filer:	Han-Wei Chen/Christine Ort			
Attorney Docket Number:	110729-8053.US01			
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
UTILITY APPL ISSUE FEE	1501	1	1000	1000

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				1000

Electronic Acknowledgement Receipt

EFS ID:	35393833
Application Number:	15287711
International Application Number:	
Confirmation Number:	6154
Title of Invention:	DEDICATED BACKHAUL LINK FOR A ROBUST WIRELESS MESH NETWORK
First Named Inventor/Applicant Name:	Peiman Amini
Customer Number:	22918
Filer:	Han-Wei Chen/Christine Ortt
Filer Authorized By:	Han-Wei Chen
Attorney Docket Number:	110729-8053.US01
Receipt Date:	12-MAR-2019
Filing Date:	06-OCT-2016
Time Stamp:	11:55:56
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
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Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	Issue_Fee_transmittal_110729-8053US01.pdf	1354249 422e1c0133afa10c6579c3b305e23ee18c30 /151	no	1

Warnings:**Information:**

2	Post Allowance Communication - Incoming	Comments_on_Reasons_for_Al lowance_110729-8053US01.pdf	86278 9b3116e1096d89c5099b60aee4b9c137b2c 56194	no	1
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3	Fee Worksheet (SB06)	fee-info.pdf	30266 514cd1972717c9521ed40e90129d66689d167 9b311	no	2
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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/287,711	04/30/2019	10278179	110729-8053.US01	6154

22918 7590 04/10/2019
PERKINS COIE LLP - PAO General
P.O. BOX 1247
SEATTLE, WA 98111-1247

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment is 145 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

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APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

NETGEAR, INC., San Jose, CA
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Application	Document	Mailroom Date	Attorney Docket No.
15287711	ISSUE.NTF	04/10/2019	110729-8053.US01

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