503147538 01/22/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3194150

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TINGFANG JI	12/08/2014
NAGA BHUSHAN	01/13/2015
YONGBIN WEI	12/04/2014
PETER GAAL	12/04/2014
TAO LUO	12/06/2014
WANSHI CHEN	11/26/2014
DURGA PRASAD MALLADI	12/04/2014
ALEKSANDAR DAMNJANOVIC	12/08/2014
KIRAN KUMAR SOMASUNDARAM	12/04/2014
HAO XU	12/04/2014

RECEIVING PARTY DATA

Name:	QUALCOMM INCORPORATED		
Street Address: 5775 MOREHOUSE DRIVE			
City:	SAN DIEGO		
State/Country:	CALIFORNIA		
Postal Code:	92121-1714		

PROPERTY NUMBERS Total: 2

Property Type	Number
Application Number:	14507727
Application Number:	61887922

CORRESPONDENCE DATA

Fax Number: (213)687-0498

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 213-787-2500

Email: Susan.Manriquez@novakdruce.com, dcdocketing@novakdruce.com

Correspondent Name: NOVAK DRUCE CONNOLLY BOVE + QUIGG LLP

Address Line 1: 333 S. GRAND AVENUE

Address Line 2: SUITE 2300

Address Line 4: LOS ANGELES, CALIFORNIA 90071-1504

ATTORNEY DOCKET NUMBER: 32716-00549/135292		
NAME OF SUBMITTER: TRIET M. NGUYEN, REG. NO. 64,790		
SIGNATURE:	/Triet M. Nguyen/	
DATE SIGNED: 01/22/2015		
Total Attachments: 6		
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ASSIGNMENT

WHEREAS, WE,

- 1. Tingfang Ji, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714 and a resident of San Diego, California,
- 2. Naga Bhushan, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714 and a resident of San Diego, California,
- 3. Yongbin Wei, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714 and a resident of La Jolla, California,
- 4. **Peter Gaal**, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714 and a resident of San Diego, California,
- 5. **Tao Luo**, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714 and a resident of San Diego, California,
- 6. Wanshi Chen, a citizen of China, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714 and a resident of San Diego, California,
- 7. Durga Prasad Malladi, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714 and a resident of San Diego, California,
- 8. Aleksandar Damnjanovic, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714 and a resident of Del Mar, California,
- 9. **Kiran Kumar Somasundaram**, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714 and a resident of San Diego, California,
- 10. **Hao Xu**, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714 and a resident of San Diego, California,

have conceived of one or more processes, methods, machines, articles of manufacture, designs, compositions of matter, inventions, discoveries or new or useful improvements relating to LTE-U CLEAR CHANNEL ASSESSMENT OPERATIONS (collectively the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefor; and

WHEREAS, QUALCOMM Incorporated (hereinafter "ASSIGNEE"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-

1714, U.S.A., desires to acquire or otherwise obtain the entire right, title, and interest in and to said INVENTIONS, including all inventions related thereto or thereof, all patent applications therefor, and all patents that have granted or may be granted hereafter thereon, including but not limited to those identified below.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, WE do hereby acknowledge that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, the entire right, title, and interest throughout the world in and to said INVENTIONS, including all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in the United States, including but not limited to U.S. Application No(s). 14/507,727 filed October 6, 2014, Qualcomm Reference No. 135292, and all provisional applications relating thereto, together with U.S. Provisional Application No. 61/887,922, filed October 7, 2013, Qualcomm Reference No. 135292P1, (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such application number(s) and/or filing date(s) when known), and all divisional applications, renewal applications, continuation applications, continuation-in-part applications, and design applications thereof, and all issued patents of the United States which may have granted or may be granted hereafter thereon and all reissues, renewals, reexaminations, and extensions to any of the foregoing and all patents issuing thereon in the United States;

AND WE further do acknowledge and agree that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, all rights of priority under International Conventions, Treaties, or Agreements, and the entire right, title, and interest throughout the world in said INVENTIONS, including all inventions related thereto or thereof, and all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in any foreign country, countries, or treaty/union organizations, and all divisional applications, renewal applications, continuation applications, continuation-in-part applications, patent of addition applications, confirmation applications, validation applications, utility model applications, and design applications thereof, and all issued patents which may have granted or may be granted hereafter for said INVENTIONS in any country or countries foreign to the United States, and all reissues, renewals, reexaminations, and extensions thereof;

AND WE DO HEREBY authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications or registrations, to issue all patents for said INVENTIONS to said ASSIGNEE, its successors, its legal representatives and its assigns, in accordance with the terms of this instrument;

AND WE DO HEREBY sell, assign, transfer, and convey to said ASSIGNEE, its successors, its legal representatives, and its assigns all claims for damages and all remedies arising out of or relating to any violation(s) of any of the rights assigned hereby that have or may have accrued prior to the date of assignment to said ASSIGNEE, or may accrue hereafter, including, but not limited to the right to sue for, seek, obtain, collect, recover, and retain damages

and any ongoing or prospective royalties to which WE may be entitled, or that WE may collect for any infringement or from any settlement or agreement related to any of said patents before or after issuance;

AND WE HEREBY covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;

AND WE HEREBY covenant that WE will not execute any writing or do any act whatsoever conflicting with these presents.

Done at _	Som Mega, on LOCATION	12/8/14	- Coro
	·		Tingfang Ji
Done at _	LOCATION , on	DATE	Naga Bhushan
Done at_	San Dies, on LOCATION	12/4/14 DATE	Yongbin Wei
Done at _	San Dieg, on LOCATION	12/04/2014 DATE	Peter Gaal
Done at⊊	Sen Doys, on LOCATION	ploo/2	Tao Luo
Done at_	, on	DATE	Wanshi Chen

P	ATENT
No	135202

QUALCOMM Ref. No. 135292 Page 4 of 4

Done at San Diefo, on 12/11/14

LOCATION DATE

Durga Prasad Malladi

Done at San Mean Con 12/8/14

LOCATION DATE

Done at $\frac{SNDIEGO_{A}}{LOCATION}$, on $\frac{12/04/2014}{DATE}$

Done at Ship Died, on 12/04/14

LOCATION DATE Hao Xu

and any ongoing or prospective royalties to which WE may be entitled, or that WE may collect for any infringement or from any settlement or agreement related to any of said patents before or after issuance:

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AND WE HEREBY covenant that WE will not execute any writing or do any act whatsoever conflicting with these presents.

Done at		, on		
	LOCATION		DATE	Tingfang Ji
Done at	SAN DIEGO LOCATION	, on _	1-13-15 DATE	Naga Bhushan
Done at	LOCATION	_, on _	DATE	Yongbin Wei
Done at	LOCATION	, on _	DATE	Peter Gaal
Done at	LOCATION	_, on _	DATE	Tao Luo
Done at	LOCATION	_, on _	DATE	Wanshi Chen

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AND WE HEREBY covenant that WE will not execute any writing or do any act whatsoever conflicting with these presents.

Done at		, on		
	LOCATION		DATE	Tingfang Ji
Done at		, on		
	LOCATION	_	DATE	Naga Bhushan
Done at		on		
-	LOCATION	_	DATE	Yongbin Wei
Done at _		, on		
			DATE	
Done at _		_, on _	DATE	
Done at	son love	on.	11/26/2014 DATE	
	LOCATION	, ~~ _	DATE	Wanshi Chen

PATENT REEL: 034792 FRAME: 0921

RECORDED: 01/22/2015