503675344 02/02/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

'ersion v1.1 EPAS ID: PAT3721980

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
XIPENG ZHU	10/14/2015
YAN LI	10/16/2015
JUN WANG	10/12/2015
ROOZBEH ATARIUS	10/12/2015
ARVIND VARDARAJAN SANTHANAM	01/26/2016

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14502542

CORRESPONDENCE DATA

Fax Number: (703)391-2901

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: 7033912900

Email: ptonoticesqc@marburylaw.com

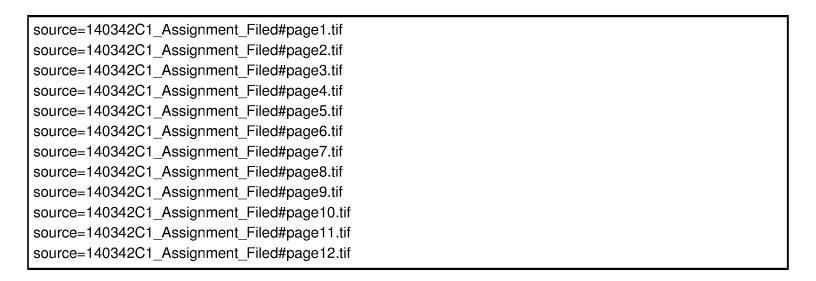
Correspondent Name: THE MARBURY LAW GROUP, PLLC Address Line 1: 11800 SUNRISE VALLEY DRIVE

Address Line 2: 15TH FLOOR

Address Line 4: RESTON, VIRGINIA 20191

ATTORNEY DOCKET NUMBER:	140342C1 / 1376-1516WC1
NAME OF SUBMITTER:	ROBERT M. HANSEN
SIGNATURE:	/Robert M. Hansen/
DATE SIGNED:	02/02/2016

Total Attachments: 12



WHEREAS, WE,

- Xipeng ZHU, a citizen of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Beijing, China;
- Yan LI, a citizen of China, having a mailing address located at 5775 Morehouse Drive.
 San Diego, CA 92121-1714 and a resident of Beijing, China;
- Jun WANG, a citizen of the United States, having a mailing address located at 5775
 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Poway, CA;
- Roozheh ATARIUS, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of La Jolla, CA; and
- 5. Arvind Vardarajan SANTHANAM, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA;

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 DIFFERENTIATED VOLTE BASED ON DUAL RADIO AND DRVCC (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). 14/502,542 filed September 30, 2014. Qualcomm Reference No. 140342C1 and all provisional applications relating thereto, (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 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;

PATENT QUALCOMM Ref. No. 140342C1 Page 3 of 3

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

> PATENT REEL: 037680 FRAME: 0953

Arvind Vardarajan SANTHANAM

WHEREAS, WE,

- 1. **Xipeng ZHU**, a citizen of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Beijing, China;
- Yan LI, a citizen of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Beijing, China;
- 3. **Jun WANG,** a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Poway, CA:
- 4. Roozbeh ATARIUS, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of La Jolla, CA; and
- 5. Arvind Vardarajan SANTHANAM, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA;

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 DIFFERENTIATED VOLTE BASED ON DUAL RADIO AND DRVCC (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). 14/502,542 filed September 30, 2014, Qualcomm Reference No. 140342C1 and all provisional applications relating thereto, (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		, on		
	LOCATION		DATE	Xipeng ZHU
Done at _		, on		
	LOCATION		DATE	Yan LI
Sone at _	Zan Diego LOCATION	_, on	10/12/2015 DATE	Jun WANG
Done at _	LOCATION	, on	DATE	Roozbeh ATARIUS
Done at _	1 63C 3 T1633	, on		A variant Wangston C. A NITEY A NI A NA
	LOCATION		DATE	Arvind Vardarajan SANTHANAM

WHEREAS, WE,

- 1. **Xipeng ZHU**, a citizen of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Beijing, China;
- Yan LI, a citizen of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Beijing, China;
- 3. **Jun WANG,** a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Poway, CA:
- 4. Roozbeh ATARIUS, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of La Jolla, CA; and
- 5. Arvind Vardarajan SANTHANAM, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA;

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 DIFFERENTIATED VOLTE BASED ON DUAL RADIO AND DRVCC (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.

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PATENT QUALCOMM Ref. No. 140342C1 Page 3 of 3

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

Done at		, on		
. .	LOCATION	mi, mm	DATE	Xipeng ZHU
Done at		, on		
	LOCATION		DATE	Yan I.I
Done at		, on		
	LOCATION		DATE 10/12/2015 DATE	Jun WANG A A A A A A A A A A A A A
	LOCATION			— Rogzbeh ATARIUS
rin riskam mili	LOCATION		DATE	Arvind Vardaraian SANTHANAM

WHEREAS, WE,

- 1. **Xipeng ZHU**, a citizen of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Beijing, China;
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QUALCOMM Ref. No. 140342C1

Page 2 of 3

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PATENT

QUALCOMM Ref. No. 140342C1

Page 3 of 3

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Done at	,on		
***	LOCATION	DATE	Xipeng ZHU
Done at	on,		
	LOCATION	DATE	Yan I.I
Done at	, on		
	LOCATION	DATE	Jun WANG
Done at _	on.		
	LOCATION	DATE	Roozbeh ATARIUS
	USA	01/26/2015 DATE	\wedge
Done at	SANDIEGO, on	01/26/2015	
	LOCATION	DATE	Arvînd Vardarajan SANTHANAM

PATENT REEL: 037680 FRAME: 0962

RECORDED: 02/02/2016