### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3294649

NATURE OF CONVEYANCE	
61 13 he 61	orrective Assignment to correct the PROVISIONAL APPLICATION 1/721,762 FILED NOVEMBER 11, 2012 (QUALCOMM DOCKET NO. 30350P1) previously recorded on Reel 030225 Frame 0255. Assignor(s) ereby confirms the FILING DATE OF PROVISIONAL APPLICATION 1/721,762 FILED NOVEMBER 2, 2012(NOT NOVEMBER 11, 012)(QUALCOMM DOCKET NO. 130350P1).

#### **CONVEYING PARTY DATA**

Name	Execution Date
ANURAG VARDHAN	04/01/2013
MAKSIM KRASNYANSKIY	04/01/2013
GEORGE CHERIAN	04/02/2013

#### **RECEIVING PARTY DATA**

Name:	QUALCOMM Incorporated
Street Address:	5775 Morehouse Drive
Internal Address:	Patent Department/Central Administration
City:	San Diego
State/Country:	CALIFORNIA
Postal Code:	92121

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	13760451

#### **CORRESPONDENCE DATA**

**Fax Number:** (858)658-2502

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:** 858-845-4265

Email: us-docketing@qualcomm.com
Correspondent Name: QUALCOMM INCORPORATED

Address Line 1: 5775 MOREHOUSE DR.

Address Line 4: SAN DIEGO, CALIFORNIA 92121

ATTORNEY DOCKET NUMBER:	130350
NAME OF SUBMITTER:	GINA GOLIA
SIGNATURE:	/Gina Golia/
DATE SIGNED:	04/02/2015

PATENT 503248031 REEL: 035413 FRAME: 0220

# **Total Attachments: 20** source=130350\_2015-04-02\_CORRECT\_ASST#page1.tif source=130350 2015-04-02 CORRECT ASST#page2.tif source=130350 2015-04-02 CORRECT ASST#page3.tif source=130350\_2015-04-02\_CORRECT\_ASST#page4.tif source=130350\_2015-04-02\_CORRECT\_ASST#page5.tif source=130350 2015-04-02 CORRECT ASST#page6.tif source=130350 2015-04-02 CORRECT ASST#page7.tif source=130350\_2015-04-02\_CORRECT\_ASST#page8.tif source=130350 2015-04-02 CORRECT ASST#page9.tif source=130350 2015-04-02 CORRECT ASST#page10.tif source=130350\_2015-04-02\_CORRECT\_ASST#page11.tif source=130350 2015-04-02 CORRECT ASST#page12.tif source=130350 2015-04-02 CORRECT ASST#page13.tif source=130350\_2015-04-02\_CORRECT\_ASST#page14.tif source=130350\_2015-04-02\_CORRECT\_ASST#page15.tif source=130350\_2015-04-02\_CORRECT\_ASST#page16.tif source=130350 2015-04-02 CORRECT ASST#page17.tif source=130350 2015-04-02 CORRECT ASST#page18.tif source=130350 2015-04-02 CORRECT ASST#page19.tif source=130350 2015-04-02 CORRECT ASST#page20.tif



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#### Electronic Patent Assignment System

# **Confirmation Receipt**

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#### PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

 SUBMISSION TYPE:
 NEW ASSIGNMENT

 NATURE OF CONVEYANCE:
 ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	<b>Execution Date</b>
Anurag Vardhan	04/01/2013
Maksim Krasnyanskiy	04/01/2013
George Cherian	04/02/2013

#### RECEIVING PARTY DATA

Name:	QUALCOMM Incorporated
Street Address:	5775 Morehouse Drive
Internal Address:	Patent Department/Central Administration
City:	San Diego
State/Country:	CALIFORNIA
Postal Code:	92121

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	13760451

#### **CORRESPONDENCE DATA**

**Fax Number:** 8586582502 **Phone:** 858-845-4265

Email: us-docketing@qualcomm.com

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

Correspondent Name: QUALCOMM INCORPORATED Address Line 1: 5775 MOREHOUSE DR.

Address Line 4: SAN DIEGO, CALIFORNIA 92121

ATTORNEY DOCKET

**NUMBER:** 

130350

NAME OF SUBMITTER:

Gina Golia

Signature:

/Gina Golia/

Date:

04/16/2013

#### **Total Attachments: 9**

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#### RECEIPT INFORMATION

**EPAS ID:** PAT2354230 **Receipt Date:** 04/16/2013 **Fee Amount:** \$40

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#### **ASSIGNMENT**

WHEREAS, WE,

- 1. Anurag Vardhan, a citizen of the United States of America, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US, and a resident of San Diego, California;
- 2. **Maksim Krasnyanskiy**, a citizen of **the United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US, and a resident of **San Diego**, California;
- 3. **George Cherian,** a citizen of **the United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US, 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 SYSTEMS, APPARATUS, AND METHODS FOR RANGE EXTENSION OF WIRELESS COMMUNICATION (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). 13/760,451 filed February 6<sup>th</sup>, 2013, Qualcomm Reference No. 130350 and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 61/721,762, filed November 2<sup>nd</sup>, 2012, Qualcomm Reference No. 130350P1 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 represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

# PATENT QUALCOMM Ref. No. 130350 Page 3 of 3

Done at <u>San Diego, California</u> or	4/1/2013	Aung
LOCATION	DATE	Anurag Vardhan
Done at <u>San Diego, California</u> or	3	
LOCATION	DATE	Maksim Krasnyanskiy
Done at <u>San Diego, California</u> or	3	
LOCATION	DATE	George Cherian

#### **ASSIGNMENT**

WHEREAS, WE,

- 1. Anurag Vardhan, a citizen of the United States of America, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US, and a resident of San Diego, California;
- 2. **Maksim Krasnyanskiy**, a citizen of **the United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US, and a resident of **San Diego**, California;
- 3. **George Cherian,** a citizen of **the United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US, 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 SYSTEMS, APPARATUS, AND METHODS FOR RANGE EXTENSION OF WIRELESS COMMUNICATION (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). 13/760,451 filed February 6<sup>th</sup>, 2013, Qualcomm Reference No. 130350 and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 61/721,762, filed November 2<sup>nd</sup>, 2012, Qualcomm Reference No. 130350P1 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

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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 represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

# PATENT QUALCOMM Ref. No. 130350

Page 3 of 3

Done at <u>San Diego, California</u> (	DB	
LOCATION	DATE	Anurag Vardhan
Done at <u>San Diego, California</u> (	on <u>4/1/2013</u>	
LOCATION	DATE	∠Møksim Krasnyanskiy
Done at <u>San Diego, California</u> o	311	
LOCATION	DATE	George Cherian

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Done at San Diego, California	_on	
LOCATION	DATE	Anurag Vardhan
Done at <u>San Diego, California</u>	on	
LOCATION	DATE	Maksim Krasnyanskiy
Done at <u>San Diego, California</u>	on April 2/2013	
LOCATION	DATE	George Cherian

PATENT REEL: 035413 FRAME: 0232

**RECORDED: 04/02/2015**