504591814 10/12/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4638526

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SANDIP HOMCHAUDHURI	09/05/2017
PRADEEP KUMAR YENGANTI	09/19/2016
ASHOK RANGANATH	09/22/2017
DEEPAK DHAMDHERE	11/21/2016
VIRAL MODI	04/14/2017
HONG FAN	03/22/2017
PATTABIRAMAN SUBRAMANIAN	04/05/2017
GANGADHAR BURRA	03/20/2017

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:	15195938

CORRESPONDENCE DATA

Fax Number: (512)327-5575

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: 512-327-5515
Email: jsmith@tlgiplaw.com
Correspondent Name: TOLER LAW GROUP

Address Line 1: 8500 BLUFFSTONE COVE

Address Line 2: SUITE A201

Address Line 4: AUSTIN, TEXAS 78759

ATTORNEY DOCKET NUMBER:	154725
NAME OF SUBMITTER:	JASON D. SMITH
SIGNATURE:	/Jason D. Smith/

DATE SIGNED:	10/12/2017
Total Attachments: 34	
source=154725_Assignment#page1.tif	
source=154725_Assignment#page2.tif	
source=154725_Assignment#page3.tif	
source=154725_Assignment#page4.tif	
source=154725_Assignment#page5.tif	
source=154725_Assignment#page6.tif	
source=154725_Assignment#page7.tif	
source=154725_Assignment#page8.tif	
source=154725_Assignment#page9.tif	
source=154725_Assignment#page10.tif	
source=154725_Assignment#page11.tif	
source=154725_Assignment#page12.tif	
source=154725_Assignment#page13.tif	
source=154725_Assignment#page14.tif	
source=154725_Assignment#page15.tif	
source=154725_Assignment#page16.tif	
source=154725_Assignment#page17.tif	
source=154725_Assignment#page18.tif	
source=154725_Assignment#page19.tif	
source=154725_Assignment#page20.tif	
source=154725_Assignment#page21.tif	
source=154725_Assignment#page22.tif	
source=154725_Assignment#page23.tif	
source=154725_Assignment#page24.tif	
source=154725_Assignment#page25.tif	
source=154725_Assignment#page26.tif	
source=154725_Assignment#page27.tif	
source=154725_Assignment#page28.tif	
source=154725_Assignment#page29.tif	
source=154725_Assignment#page30.tif	
source=154725_Assignment#page31.tif	
source=154725_Assignment#page32.tif	
source=154725_Assignment#page33.tif	
source=154725_Assignment#page34.tif	

ASSIGNMENT

WHEREAS, WE,

- 1. Sandip HomChaudhuri, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 2. Pradeep Kumar Yenganti, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Cupertino, CA.
- 3. Ashok Ranganath, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 4. **Deepak Dhamdhere**, a citizen of the **United States of America**, having a mailing address located at 5775 **Morehouse Drive**, **San Diego**, **CA 92121-1714** and a resident of **San Jose**, **CA**,
- 5. Viral Modi, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 6. Hong Fan, a citizen of the Republic of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 7. Pattabiraman Subramanian, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Fremont, CA,
- 8. Gangadhar Burra, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Fremont, 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 **SHARING AN ANTENNA BETWEEN LTE-U AND WLAN** (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). 15/195,938 filed June 28, 2016, Qualcomm 154725, and all provisional applications relating thereto, together Reference No. with U.S. Provisional Application No(s). 62/198,632, filed July 29, 2015, Qualcomm Reference No. 154725P1, (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;

QUALCOMM Ref. No. 154725

Page 3 of 4

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	Shr jost (1), on LOCATION	4/5/2017 DATE	Sandip HomChaudhuri
Done at	, on _	DATE	
	, on _		and parametrical p
	, on		
	LOCATION on _		
	LOCATION , on _		Hong Fan

PATENT QUALCOMM Ref. No. 154725 Page 4 of 4

Done at _		, on		
	LOCATION		DATE	Pattabiraman Subramanian
Done at		, on		
_	LOCATION		DATE	Gangadhar Burra

ASSIGNMENT

WHEREAS, WE,

- 1. Sandip HomChaudhuri, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 2. Pradeep Kumar Yenganti, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Cupertino, CA.
- 3. Ashok Ranganath, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 4. **Deepak Dhamdhere**, a citizen of the **United States of America**, having a mailing address located at 5775 **Morehouse Drive**, **San Diego**, **CA 92121-1714** and a resident of **San Jose**, **CA**,
- 5. Viral Modi, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 6. Hong Fan, a citizen of the Republic of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 7. Pattabiraman Subramanian, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Fremont, CA,
- 8. Gangadhar Burra, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Fremont, 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 **SHARING AN ANTENNA BETWEEN LTE-U AND WLAN** (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). 15/195,938 filed June 28, 2016, Qualcomm 154725, and all provisional applications relating thereto, together Reference No. with U.S. Provisional Application No(s). 62/198,632, filed July 29, 2015, Qualcomm Reference No. 154725P1, (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	, 01	1	
	LOCATION , OI	DATE	Sandip HomChaudhuri
Done at	San Jose, or LOCATION	09/19/16 DATE	Pradeep Kumar Yenganti
Done at	LOCATION , on	DATE	Ashok Ranganath
Done at _	LOCATION , on	DATE	Deepak Dhamdhere
Done at _	, on LOCATION	DATE	Viral Modi
Done at _	LOCATION , on	DATE	Hong Fan

PATENT QUALCOMM Ref. No. 154725 Page 4 of 4

Done at _		, on		
	LOCATION		DATE	Pattabiraman Subramanian
Done at		• on		
Done ut _	LOCATION	, on	DATE	Gangadhar Burra

DECLARATION

- I, Michael Sexton, declare the following:
- From 2004 to the present, I have been employed by Qualcomm Incorporated, San Diego, working in Human Resources and familiar with our employee records systems. I currently hold the title of Sr Mgr, Human Resources.
- I have obtained the employment records of former employee, Ashok Ranganath 2. including a copy of his Invention Disclosure Agreement. A redacted copy of that Invention Disclosure Agreement is attached.
- The attached copy of the Invention Disclosure Agreement is identified according 3. to employee number, 20344. According to the records that I reviewed, Ashok Ranganath is employee number 20344. The records show that inventor executed the Invention Disclosure Agreement on September 6, 2012.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 9 22 17 Signed: /

Michael Sexton, Sr Mgr., Human Resources



Print

Submission for employee #20344 was recorded on 09/06/2012



INVENTION DISCLOSURE, CONFIDENTIALITY & PROPRIETARY RIGHTS AGREEMENT (the "Agreement")

PLEASE READ THE FOLLOWING FULLY AND CAREFULLY, AND INDICATE YOUR AGREEMENT BY CLICKING ON THE "LAGREE" BUTTON AT THE VERY END OF THIS DOCUMENT.

In connection with my employment by Qualcomm Incorporated, Qualcomm Technologies, Inc. or one of their respective subsidiaries (such employer is the 'Company', and, collectively, such entities are 'Qualcomm' or 'Qualcomm Entities'), or if presently employed, then in connection with my continued employment, and in consideration of the compensation paid to me during the period of my employment, such period of employment to be for so long as may remain agreeable at the will of the Company and/or me, I agree as follows:

1. Inventions And Works of Authorship

1.1. Inventions & Works Belong to Company Unless Excluded by this Agreement. I understand that all 'Inventions' and 'Works' that are 'Created' by me alone or jointly with others (definitions below) at any time during my period of employment with the Company shall be the sole and exclusive property of the Company, and subject to the Company's direction and control, unless they are 'Excluded Inventions and/or Works' as defined in Section 1.2 of this Agreement.

Except for the Excluded Inventions and/or Works (as defined in Section 1.2 of this Agreement), I hereby irrevocably assign, transfer and convey to the Company, its successors and assigns, all of my entire right, title, and interest in and to any and all Inventions and Works that are Created by me alone or jointly with others at any time during my period of employment with the Company, including without limitation all patent applications and patents worldwide therefor, and all rights of priority derived therefrom under any international conventions, treaties, or agreements. The foregoing assignment, transfer and conveyance shall operate automatically upon the Creation of each such Invention and Work.

To the extent any of the rights, title and interest in and to any such Works or Inventions cannot under applicable law be assigned by me to the Company, I hereby grant to the Company an exclusive, royalty-free, transferable, irrevocable, worldwide, fully paid-up license (with rights to sublicense through multiple tiers of sublicensees) to fully use, practice and exploit those non-assignable rights, title and interest, including, but not limited to, the right to make, use, sell, offer for sale, import, have made, and have sold, products and services. To the extent any of the rights, title and interest in and to any such Works or Inventions can neither be assigned nor licensed by me to the Company, I hereby irrevocably waive and agree never to assert the non-assignable and non-licensable rights, title and interest against Qualcomm, any of Qualcomm's successors in interest, or any of Qualcomm's customers.

I acknowledge and agree that the Company, its successors and assigns have the sole and exclusive right to file or not to file for domestic or foreign patents on any or all Inventions, or for domestic or foreign copyrights and trademarks on any or all Works, as determined in their sole discretion.

Definitions:

'Created' (and 'Creation') is when (i) an Invention is conceived or reduced to practice, or (ii) a Work is created, developed, made, authored, or fixed in a tangible medium of expression.

'Invention' is any invention, discovery, development, design, formula, process, improvement, idea, innovation, know-how or information, in each case whether patentable or not, that is Created by me, either solely or in concert with others.

"Work" is any work of authorship or information, including, but not limited to, any computer program, publishable article, mask work, trademark, service mark, trade name, trade dress, sales brochure, work of art, or technical report, in each case whether copyrightable or not, that are Created by me, either solely or in concert with others. I acknowledge that all Works that are subject to copyright and that are Created by me within the scope of my employment constitute a 'work for hire' within the meaning of Title 17 United States Code Sections 101 and 201(b).

- <u>Excluded Inventions & Works are not Assigned to Company.</u> The following Inventions and/or Work described in Section 1.2(a) 1.2(c) below are collectively referred to as the 'Excluded Inventions and/or Works' and are not assigned to Company:
 - Any Inventions and/or Works that I have listed (by descriptive title for purposes of identification) in my Statement of Excepted Inventions and Works in Attachment 1 to this Agreement, are all of the Inventions and Works Created prior to my employment by the Company which I consider to be my property or in which I claim any ownership interest or title, either alone or jointly with a third party. I agree to provide copies of all documentation in support of my claim to any such Inventions and Works if so requested by the Company. I understand that my listing of any Inventions and Works in Attachment 1 does not establish that the Company agrees with my claim to the ownership over any such Inventions and Works; instead, this list of Inventions and Works in Attachment 1 merely serves as a record of the pre-employment Inventions and Works in which I claim to have an ownership interest. ownership interest
 - Any Inventions and/or Works that meet all of the following criteria:

 - which are developed by me, alone or jointly with others, entirely on my own time; and
 for which no equipment, supplies, facilities, or trade-secret information of Qualcomm (or of any third party which Qualcomm is authorized to use) are used; and
 - which do not result from any work performed by me for the Company; and
 - which do not relate to the business of Qualcomm, its actual or demonstrably anticipated research or development or its design, experimental or production work.

(C) REDACTED	(c)	REDACTED
--------------	-----	----------

Except as specifically described in the Statement of Excepted Inventions and Works in Attachment 1, I represent and warrant there are no Inventions or Works previously Created by me which I claim to be an Excluded Invention and/or Work.

- 1.3. <u>I Agree to Disclose All Inventions and Works.</u> I shall promptly, but in no case later than thirty (30) days from Creation, fully disclose to the Company all Inventions and Works Created by me, either solely or in concert with others, during the period of my employment with the Company, together with any period prior to the date of this Agreement if I have not signed this Agreement until after my start of employment with Company. I agree to disclose all Inventions and Works using forms provided by the Company.
- 1.4. I Agree to Assist the Company. I agree, upon request by the Company, and without compensation (other than with respect to my requested reimbursement of my reasonable and actual out-of-pocket expense which have been pre-approved by the Company in writing), to do all lawful acts including the execution of all papers and lawful oaths and the giving of testimony that may be necessary or desirable in obtaining, sustaining, reissuing, renewing, and enforcing United States and foreign Letters Patent and copyright on all Inventions and Works herein assigned to the Company, including without limitation to assist the Company in any controversy or legal proceeding relating to all such Inventions and Works. I further agree to comply with provisions of contracts between the Company and contractors or any agency of the United States Government with whom the Company is doing business, including all provisions relating to invention rights, works of authorship or to the safeguarding of information. If the Company is unable for any reason to secure my signature to any document required to file, prosecute, register or memorialize the assignment of any rights or application or to enforce any right to or under any Inventions and Works Created by me and assigned to the Company under this Agreement, I hereby irrevocably designate and appoint the Company and the Company's duly authorized officers and agents as my agents and attorneys in fact to act for and on my behalf and instead of me to take all lawfully permitted acts to further the filing, prosecution, registration, memorialization of assignment, issuance, and enforcement of rights to or under the Inventions and Works Created by me and assigned to the Company under this Agreement, all with the same legal force and effect as if executed by me. The foregoing is deemed a power coupled with an interest and is irrevocable.
- 1.5. REDACTED
- 1.6. <u>California Labor Code Sections 2870-2872</u>. California Labor Code Section 2872 places the burden of proof on the employee. I hereby acknowledge that I have received a copy of California Labor Code Sections 2870 through 2872 (See <u>Attachment 2</u>).
- 2. Nondisclosure Of Confidential Information
 - 2.1. REDACTED

2.2. REDACTED

REDACTED 3.REDACTED 3.1. 3.2. 4.REDACTED 4.1. 4.2. 5. REDACTED 5.1.

6. Miscellaneous

5.2.

- 6.1. <u>Survival of Terms.</u> I understand and agree that the obligations and undertakings in this Agreement that are meant to survive shall continue in full force and effect after the termination of my employment, regardless of the reason for the termination of my employment. Nothing contained in this Agreement changes the at will nature of my employment at the Company.
- 6.2. No Assignment. I shall not assign all or any portion of my rights, duties or obligations under this Agreement. Any such attempted assignment shall be null and void from inception.
- 6.3. Employment with any of the Qualcomm Entities. I understand and agree that, in the event that my employment transfers from the Company to any other Qualcomm Entity, without any interruption in employment, this Agreement shall automatically, and with no further action required, be assigned by the Company to such new employer. I understand and agree that any such new employer shall become "the Company" for all purposes under this Agreement.
- 6.4. <u>Severability.</u> If any provision in this Agreement is held to be invalid or unenforceable in whole or in part (the '*Invalid Provision*'), the remaining portions of such provision (if any) and the other provisions in this Agreement will remain in full force and effect, and the Invalid Provision will remain in effect to the maximum extent allowed by law.
- 6.5. <u>Successors and Assigns.</u> The provisions of this Agreement shall inure to the benefit of and may be enforced by the Company, its successors, or assigns (including pursuant to Section 6.3), and shall be binding upon me, my executors, administrators, and other legal representatives.
- 6.6. Time of Essence. Time is of the essence in the performance of all obligations under this Agreement.
- 6.7. No Amendment or Waiver. This Agreement may not be amended or modified, in whole or in part, except in a writing that is signed by an authorized Executive Officer of the Company and me. If the Company waives any term, provision or breach by me of this Agreement, such waiver shall not be effective unless it is in writing and signed by an authorized Executive Officer of the Company. Any such waiver shall be effective only in the specific instance and the purpose for which it is given.
- 6.8. Effectiveness. This Agreement, if executed after the commencement of my employment, is hereby specifically made retroactive and effective as of the first day of my employment.
- 6.9. Entire Agreement. This Agreement supersedes any agreement, discussion, understanding, commitment or representation, whether written or verbal, that may have previously been made or executed by the parties relating to this subject matter.

- 6.10. Governing Law and Forum. This Agreement shall be governed by and construed according to the laws of the State of California, excluding conflicts of law principles that would result in the application of the laws of a different jurisdiction. Any action to enforce or construe this Agreement, or any of the provisions hereof, shall be heard only in a court of competent jurisdiction located in San Diego County, California and the Company and I each irrevocably consent to the exclusive personal jurisdiction of such courts, except that in actions seeking to enforce any order or any judgment of any such court, personal jurisdiction will be nonexclusive. Additionally, notwithstanding anything in the foregoing to the contrary, a claim for equitable relief arising out of or related to this Agreement may be brought in any court of competent jurisdiction.
- 6.11. <u>Injunctive Relief.</u> I agree that if I violate this Agreement, the Company will suffer irreparable and continuing damage for which money damages are insufficient, and the Company is entitled to injunctive relief, a decree for specific performance, and all other relief as may be proper (including money damages if appropriate), to the extent permitted by law, without the need to post a bond.

ATTACHMENTS:

- 1. Statement of Excepted Inventions and Works
- 2. California Labor Code Sections 2870-2872

ATTACHMENT 1

STATEMENT OF EXCEPTED INVENTIONS AND WORKS

As provided in Section 1.2(a) of this Agreement, listed below by descriptive title for purposes of identification, are all of the Inventions and Works Created prior to my employment with the Company which I consider my property or in which I claim any ownership interest or title.

If this Attachment is blank, then you represent, warrant and agree that there are no such Inventions or Works.

For the avoidance of doubt, only those Inventions and/or Works in which you currently hold title or in which you currently have an ownership interest should be listed on this Attachment.

Excepted Inventions (If your text exceeds 4000 characters, please let us know by clicking on the feedback link located at the bottom of this page)

Please do not input any text here if the answer is 'None'. Only input text if you have any inventions or works that predate your employment that you believe are your personal property and subject to this agreement.

Excepted Works (If your text exceeds 4000 characters, please let us know by clicking on the feedback link located at the bottom of this page)
Please do Not input any text here if the answer is 'None'. Only input text if you have any inventions or works that predate your
employment that you believe are your personal property and subject to this agreement.

ATTACHMENT 2

CALIFORNIA LABOR CODE SECTIONS 2870-2872

Section 2870.

- (a) Any provision in an employment agreement which provides that an employee shall assign or offer to assign any of his or her rights in an invention to his or her employer shall not apply to an invention that the employee developed entirely on his or her own time without using the employer's equipment, supplies, facilities, or trade secret information except for those inventions that either:
 - (1) Relate at the time of conception or reduction to practice of the invention to the employer's business, or actual or demonstrably anticipated research or development of the employer; or
 - (2) Result from any work performed by the employee for the employer.
- (b) To the extent a provision in an employment agreement purports to require an employee to assign an invention otherwise excluded from being required to assign under this subdivision (a), the provision is against the public policy of this state and is unenforceable.

Section 2871.

No employer shall require a provision made void and unenforceable by Section 2870 as a condition of employment or continued employment. Nothing in this article shall be construed to forbid or restrict the right of an employer to provide in contracts of employment for disclosure, provided that such disclosures be received in confidence, of all of the employee's inventions made solely or jointly with others during the term of his or her employment, a review process by the employer to determine such issues as may arise, and, for full title to certain patents and inventions to be in the United States, as required by contracts between the employer and the United States or any of its agencies.

Section 2872.

If an employment agreement entered into after January 1, 1980 contains a provision requiring the employee to assign or offer to assign any of his or her rights in any invention to his or her employer, the employer must also, at the time the agreement is made, provide a written notification to the employee that the agreement does not apply to any invention which qualifies fully under the provisions of Section 2870. In any suit or action arising thereunder, the burden of proof shall be on the employee claiming the benefits of its provisions.

INDICATE YOUR AGREEMENT TO TERMS OF 'INVENTION DISCLOSURE, CONFIDENTIALITY & PROPRIETARY RIGHTS AGREEMENT'
HERE:

By clicking the 'I Agree' button below, I am agreeing to all the terms and conditions set forth above, and that I have accurately and completely filled out the Statement of Excepted Inventions and Works. I understand that clicking the 'I Agree' button has the same effect as if I had signed a paper copy of the Agreement.

If you have questions, please contact IDA Last Modified: 09/05/2012

ASSIGNMENT

WHEREAS, WE,

- 1. Sandip HomChaudhuri, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 2. Pradeep Kumar Yenganti, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Cupertino, CA.
- 3. Ashok Ranganath, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 4. **Deepak Dhamdhere**, a citizen of the **United States of America**, having a mailing address located at 5775 **Morehouse Drive**, **San Diego**, **CA 92121-1714** and a resident of **San Jose**, **CA**,
- 5. Viral Modi, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 6. Hong Fan, a citizen of the Republic of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 7. Pattabiraman Subramanian, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Fremont, CA,
- 8. Gangadhar Burra, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Fremont, 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 **SHARING AN ANTENNA BETWEEN LTE-U AND WLAN** (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). 15/195,938 filed June 28, 2016, Qualcomm 154725, and all provisional applications relating thereto, together Reference No. with U.S. Provisional Application No(s). 62/198,632, filed July 29, 2015, Qualcomm Reference No. 154725P1, (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;

QUALCOMM Ref. No. 154725

Page 3 of 4

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	, on DATE	Sandip HomChaudhuri
Done at	LOCATION	, on	Pradeep Kumar Yenganti
Done at _	LOCATION	, on	Ashok Ranganath
Done at _	San Jose LOCATION	-, on <u>Nov. 21, 2016</u> DATE	Deepak Dhamdhere
Done at _	LOCATION	on	Viral Modi
Done at _	LOCATION	on	Hong Fan

PATENT QUALCOMM Ref. No. 154725 Page 4 of 4

Done at _		, on		
	LOCATION		DATE	Pattabiraman Subramanian
Done at		, on		
_	LOCATION		DATE	Gangadhar Burra

ASSIGNMENT

WHEREAS, WE,

- 1. Sandip HomChaudhuri, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 2. Pradeep Kumar Yenganti, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Cupertino, CA.
- 3. Ashok Ranganath, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 4. **Deepak Dhamdhere**, a citizen of the **United States of America**, having a mailing address located at 5775 **Morehouse Drive**, **San Diego**, **CA 92121-1714** and a resident of **San Jose**, **CA**,
- 5. Viral Modi, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 6. Hong Fan, a citizen of the Republic of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 7. Pattabiraman Subramanian, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Fremont, CA,
- 8. Gangadhar Burra, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Fremont, 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 **SHARING AN ANTENNA BETWEEN LTE-U AND WLAN** (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). 15/195,938 filed June 28, 2016, Qualcomm 154725, and all provisional applications relating thereto, together Reference No. with U.S. Provisional Application No(s). 62/198,632, filed July 29, 2015, Qualcomm Reference No. 154725P1, (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	Sandip HomChaudhuri
Dono ot			
Done at _	LOCATION	, on DATE	Dandan V. V.
	DOOMINGN	DALL	Pradeep Kumar Yenganti
Done at		• on	
	LOCATION	_, on	Ashok Ranganath
Done at _		_, on	
	LOCATION	DATE	Deepak Dhamdhere
5	See Trans	18 % 1 1 % 1 m . 1 m	10 morte
Done at 🕢	TOCATION	on <u>04//4/2017</u> DATE	- V///2340
	LOCATION	DATE	Viral Modi
Done at		. On	
	LOCATION	_, on	Hong Fan

PATENT QUALCOMM Ref. No. 154725 Page 4 of 4

Done at _		, on		
_	LOCATION		DATE	Pattabiraman Subramanian
Done at		• on		
Done at _	LOCATION	, on	DATE	Gangadhar Burra

ASSIGNMENT

WHEREAS, WE,

- 1. Sandip HomChaudhuri, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 2. Pradeep Kumar Yenganti, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Cupertino, CA.
- 3. Ashok Ranganath, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 4. **Deepak Dhamdhere**, a citizen of the **United States of America**, having a mailing address located at 5775 **Morehouse Drive**, **San Diego**, **CA 92121-1714** and a resident of **San Jose**, **CA**,
- 5. Viral Modi, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 6. Hong Fan, a citizen of the Republic of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 7. Pattabiraman Subramanian, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Fremont, CA,
- 8. Gangadhar Burra, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Fremont, 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 **SHARING AN ANTENNA BETWEEN LTE-U AND WLAN** (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). 15/195,938 filed June 28, 2016, Qualcomm 154725, and all provisional applications relating thereto, together Reference No. with U.S. Provisional Application No(s). 62/198,632, filed July 29, 2015, Qualcomm Reference No. 154725P1, (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	Sandip HomChaudhuri
Done at		, on	DATE	
	LOCATION		DATE	Pradeep Kumar Yenganti
Done at		_, on	DATE	
	LOCATION		DATE	Ashok Ranganath
Done at		, on	DATE	
	LOCATION		DATE	Deepak Dhamdhere
Done at		_, on _	DATE	
	LOCATION		DATE	Viral Modi
Done at _	Shanghai LOCATION	_, on _	03/22/2017	Hong Fan
	LOCATION		DATE	Hong Fan

PATENT QUALCOMM Ref. No. 154725 Page 4 of 4

Done at _		, on		
	LOCATION	_	DATE	Pattabiraman Subramanian
Done at		, on		
	LOCATION		DATE	Gangadhar Burra

ASSIGNMENT

WHEREAS, WE,

- 1. Sandip HomChaudhuri, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 2. Pradeep Kumar Yenganti, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Cupertino, CA.
- 3. Ashok Ranganath, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 4. **Deepak Dhamdhere**, a citizen of the **United States of America**, having a mailing address located at 5775 **Morehouse Drive**, **San Diego**, **CA 92121-1714** and a resident of **San Jose**, **CA**,
- 5. Viral Modi, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 6. Hong Fan, a citizen of the Republic of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 7. Pattabiraman Subramanian, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Fremont, CA,
- 8. Gangadhar Burra, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Fremont, 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 **SHARING AN ANTENNA BETWEEN LTE-U AND WLAN** (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). 15/195,938 filed June 28, 2016, Qualcomm 154725, and all provisional applications relating thereto, together Reference No. with U.S. Provisional Application No(s). 62/198,632, filed July 29, 2015, Qualcomm Reference No. 154725P1, (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		Sandip HomChaudhuri
Done at _	LOCATION	, on	DATE		Pradeep Kumar Yenganti
Done at _		, on			Ashok Ranganath
	LOCATION		DATE		Ashok Ranganath
Done at		• on			
	LOCATION	, 0	DATE		Deepak Dhamdhere
Done at _	LOCATION	_, on		<u></u>	
	LOCATION		DATE		Viral Modi
Done at _	LOCATION	_, on			
	LOCATION		DATE		Hong Fan

PATENT QUALCOMM Ref. No. 154725 Page 4 of 4

Done at _	SANJOSE	A , on	4/5/17	Sflaman
	LOCATION	-	DATE	Pattabiraman Sabramanian
Done at _	LOCATION	, on	DATE	Gangadhar Burra

ASSIGNMENT

WHEREAS, WE,

- 1. Sandip HomChaudhuri, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 2. Pradeep Kumar Yenganti, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Cupertino, CA,
- 3. Ashok Ranganath, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 4. **Deepak Dhamdhere**, a citizen of the **United States of America**, having a mailing address located at 5775 **Morehouse Drive**, **San Diego**, **CA 92121-1714** and a resident of **San Jose**, **CA**,
- 5. Viral Modi, a citizen of the Republic of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 6. Hong Fan, a citizen of the Republic of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Jose, CA,
- 7. Pattabiraman Subramanian, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Fremont, CA,
- 8. Gangadhar Burra, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of Fremont, 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 **SHARING AN ANTENNA BETWEEN LTE-U AND WLAN** (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). 15/195,938 filed June 28, 2016, Qualcomm 154725, and all provisional applications relating thereto, together Reference No. with U.S. Provisional Application No(s). 62/198,632, filed July 29, 2015, Qualcomm Reference No. 154725P1, (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		Sandip HomChaudhuri
Done at _	LOCATION	, on	DATE		Pradeep Kumar Yenganti
Done at _		, on			Ashok Ranganath
	LOCATION		DATE		Ashok Ranganath
Done at		• on			
	LOCATION	, 0	DATE		Deepak Dhamdhere
Done at _	LOCATION	_, on		<u></u>	
	LOCATION		DATE		Viral Modi
Done at _	LOCATION	_, on			
	LOCATION		DATE		Hong Fan

PATENT QUALCOMM Ref. No. 154725 Page 4 of 4

Done at	, 0	n		
	LOCATION	DATE	Pattabiraman Subramania	an
Done at \$	<u> </u>	n <u>3/20/2017</u>	- Burgoli	/ Cu
	LOCATION	DATE	Gangadhar Burra	designation of the second of t

PATENT REEL: 044204 FRAME: 0735

RECORDED: 10/12/2017