

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT4357203

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
NAVID ABEDINI	03/31/2017
TAO LUO	03/30/2017
SUNDAR SUBRAMANIAN	03/31/2017
MUHAMMAD NAZMUL ISLAM	03/31/2017
BILAL SADIQ	03/31/2017
ASHWIN SAMPATH	03/31/2017
JUERGEN CEZANNE	03/31/2017
JUNYI LI	03/31/2017
KRISHNA KIRAN MUKKAVILLI	04/03/2017
DURGA PRASAD MALLADI	03/30/2017
OZGE KOYMEN	03/31/2017
ATUL MAHARSHI	04/02/2017
RECEIVING PARTY DATA	
Name:	QUALCOMM INCORPORATED
Street Address:	5775 MOREHOUSE DRIVE
City:	SAN DIEGO
State/Country:	CALIFORNIA
Postal Code:	92121-1714
PROPERTY NUMBERS Total: 2	
Property Type	Number
Application Number:	15461192
Application Number:	62379697
CORRESPONDENCE DATA	
Fax Number:	(202)857-6395
<i>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.</i>	
Phone:	213-629-7400
Email:	patentdocket@arentfox.com, rachele.wittwer@arentfox.com
Correspondent Name:	ARENT FOX, LLP AND QUALCOMM, INCORPORATE
Address Line 1:	1717 K STREET, NW
PATENT	

Address Line 4: WASHINGTON, D.C. 20006-5344	
ATTORNEY DOCKET NUMBER:	030284.14167/165115U2
NAME OF SUBMITTER:	RACHELE WITTWER
SIGNATURE:	/Rachele Wittwer/
DATE SIGNED:	04/06/2017
Total Attachments: 10 source=165115U2 Signed Assignment#page1.tif source=165115U2 Signed Assignment#page2.tif source=165115U2 Signed Assignment#page3.tif source=165115U2 Signed Assignment#page4.tif source=165115U2 Signed Assignment#page5.tif source=165115U2 Signed Assignment#page6.tif source=165115U2 Signed Assignment#page7.tif source=165115U2 Signed Assignment#page8.tif source=165115U2 Signed Assignment#page9.tif source=165115U2 Signed Assignment#page10.tif	

ASSIGNMENT

WHEREAS, WE,

1. Navid ABEDINI, a citizen of Iran, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Raritan, New Jersey,
2. Tao LUO, 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 Diego, California,
3. Sundar SUBRAMANIAN, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Bridgewater, New Jersey,
4. Muhammad Nazmul ISLAM, a citizen of Bangladesh, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Edison, New Jersey,
5. Bilal SADIQ, a citizen of Pakistan, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Basking Ridge, New Jersey,
6. Ashwin SAMPATH, 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 Skillman, New Jersey,
7. Juergen CEZANNE, a citizen of Germany, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Ocean Township, New Jersey,
8. Junyi LI, 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 Chester, New Jersey,
9. Krishna Kiran MUKKAVILLI, 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 Diego, California,
10. Durga Prasad MALLADI, 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 Diego, California,
11. Ozge KOYMEN, 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 Princeton, New Jersey,
12. Atul MAHARSHI, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of South Orange, New Jersey,

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 **SUPPORTING DIFFERENT NUMEROLOGY CONFIGURATIONS** (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). 15/461,192 filed March 16, 2017, Qualcomm Reference No. 165115U2, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 62/379,697, filed August 25, 2016, Qualcomm Reference No. 165115P1, (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 Bridgewater, NJ, on 3-31-17
LOCATION DATE

Navid ABEDINI
Navid ABEDINI

Done at _____, on _____
LOCATION DATE

Tao LUO
Tao LUO

Done at Bridgewater, NJ, on 3-31-17
LOCATION DATE

Sundar SUBRAMANIAN
Sundar SUBRAMANIAN

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

Done at Bridgewater^{NJ}, on 3-31-17
LOCATION DATE
Muhammad Nazmul ISLAM

Done at Bridgewater^{NJ}, on 3-31-17
LOCATION DATE
Bilal SADIQ

Done at Bridgewater^{NJ}, on 3-31-17
LOCATION DATE
Ashwin SAMPATH

Done at Bridgewater^{NJ}, on 3-31-17
LOCATION DATE
Juergen CEZANNE


Done at Bridgewater^{NJ}, on 3-31-17
LOCATION DATE
Junyi LI

Done at _____, on _____
LOCATION DATE
Krishna Kiran MUKKAVILLI

Done at _____, on _____
LOCATION DATE
Durga Prasad MALLADI

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

Done at Bridgewater, NJ, on 3-31-17
LOCATION DATE


Ozge KOYMEN

Done at _____, on _____
LOCATION DATE

Atul MAHARSHI

ASSIGNMENT

WHEREAS, WE,

1. Navid ABEDINI, a citizen of Iran, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Raritan, New Jersey,
2. Tao LUO, 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 Diego, California,
3. Sundar SUBRAMANIAN, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Bridgewater, New Jersey,
4. Muhammad Nazmul ISLAM, a citizen of Bangladesh, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Edison, New Jersey,
5. Bilal SADIQ, a citizen of Pakistan, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Basking Ridge, New Jersey,
6. Ashwin SAMPATH, 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 Skillman, New Jersey,
7. Juergen CEZANNE, a citizen of Germany, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Ocean Township, New Jersey,
8. Junyi LI, 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 Chester, New Jersey,
9. Krishna Kiran MUKKAVILLI, 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 Diego, California,
10. Durga Prasad MALLADI, 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 Diego, California,
11. Ozge KOYMEN, 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 Princeton, New Jersey,
12. Atul MAHARSHI, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of South Orange, New Jersey,

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 **SUPPORTING DIFFERENT NUMEROLOGY CONFIGURATIONS** (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). 15/461,192 filed March 16, 2017, Qualcomm Reference No. 165115U2, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 62/379,697, filed August 25, 2016, Qualcomm Reference No. 165115P1, (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 Navid ABEDINI

Done at San Diego, on 03/30/17
LOCATION DATE Tao LUO

Done at _____, on _____
LOCATION DATE Sundar SUBRAMANIAN

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 Muhammad Nazmul ISLAM

Done at _____, on _____
LOCATION DATE Bilal SADIQ

Done at _____, on _____
LOCATION DATE Ashwin SAMPATH

Done at _____, on _____
LOCATION DATE Juergen CEZANNE

Done at _____, on _____
LOCATION DATE Junyi LI

Done at San Diego, on 04/03/2017
LOCATION DATE Krishna Kiran MUKKAVILLI

Done at San Diego, on 3/30/17
LOCATION DATE Durga Prasad MALLADI

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 Ozge KOYMEN

Done at SOUTH ORANGE
NY, on 04/02/2017
LOCATION DATE Atul MAHARSHI