

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7067294

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
YUCHUL KIM	09/13/2021
HWAN JOON KWON	12/09/2021
KRISHNA KIRAN MUKKAVILLI	09/21/2021
HUILIN XU	08/29/2021
JAY KUMAR SUNDARARAJAN	09/20/2021
YELIZ TOKGOZ	08/30/2021
JING LEI	08/29/2021
PETER PUI LOK ANG	09/07/2021
TINGFANG JI	09/14/2021
WANSHI CHEN	09/16/2021
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:	17445166
CORRESPONDENCE DATA	
Fax Number:	(214)855-8200
<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:	2148558000
Email:	mitzi.booth@nortonrosefulbright.com
Correspondent Name:	D. FORD/NORTON ROSE FULBRIGHT US LLP
Address Line 1:	2200 ROSS AVE, SUITE 3600
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ATTORNEY DOCKET NUMBER:	QLXX.P1540US/1001174266

NAME OF SUBMITTER:	DANIEL J. FORD
SIGNATURE:	/DANIEL. J. FORD/
DATE SIGNED:	12/10/2021
Total Attachments: 12 source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif source=Assignment#page4.tif source=Assignment#page5.tif source=Assignment#page6.tif source=Assignment#page7.tif source=Assignment#page8.tif source=Assignment#page9.tif source=Assignment#page10.tif source=Assignment#page11.tif source=Assignment#page12.tif	

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ASSIGNMENT

WHEREAS, WE,

1. **Yuchul KIM**, having a mailing address located at **5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A.**,
2. **Hwan Joon KWON**, having a mailing address located at **5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A.**,
3. **Krishna Kiran MUKKAVILLI**, having a mailing address located at **5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A.**,
4. **Huilin XU**, having a mailing address located at **5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A.**,
5. **Jay Kumar SUNDARARAJAN**, having a mailing address located at **5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A.**,
6. **Yeliz TOKGOZ**, having a mailing address located at **5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A.**,
7. **Jing LEI**, having a mailing address located at **5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A.**,
8. **Peter Pui Lok ANG**, having a mailing address located at **5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A.**,
9. **Tingfang JI**, having a mailing address located at **5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A.**,
10. **Wanshi CHEN**, having a mailing address located at **5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A.**,

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 **GROUP-BASED SIGNALING FOR A WIRELESS COMMUNICATION SYSTEM** (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). 17/445,166** filed **August 16, 2021**, **Qualcomm Reference Number 206815**, and all provisional applications relating thereto, together with **U.S. Provisional Application No(s). 63/066,671** filed **August 17, 2020**, **Qualcomm**

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Reference Number 206815P1, (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;

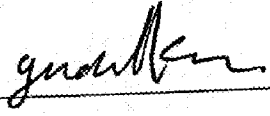
AND WE further do acknowledge and agree that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, all rights of priority under International Conventions, Treaties, 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 the United States or 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 me 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 San Diego, CA, USA, on 9/13/2021 
City, State, Country Date Yuchul KIM

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

Done at San Diego CA USA, on 12/9/21 
City, State, Country Date Hwan Joon KWON

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

Done
at

San Diego, CA, USA

City, State, Country

on

9/21/21

Date

H. Krishna Kiran

Krishna Kiran MUKKAVILLI

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

Done at Temecula, CA, USA on 08/29/2021 HACu
City, State, Country Date Huilin XU

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

Done at San Diego, CA, USA on September 20, 2021 J. Jay Kumar
City, State, Country Date Jay Kumar SUNDARARAJAN

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

Done
at

San Diego, CA

on

8/30/2021

Yeliz Tokgoz

City, State, Country

Date

Yeliz TOKGOZ

Document ID: 1629982141691 v1

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

Done
at

Sandiego, CA, USA

City, State, Country

on

8/24/2021

Date



Jing LEI

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

Done at San Diego, CA, USA, on 9/7/2021 R 4/21
City, State, Country Date Peter Pui Lok ANG

Document ID: 1629982141693 v1

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

Done
at

San Diego, CA, USA
City, State, Country

on

9/14/2021
Date

Tingfang Ji
Tingfang Ji

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

Done
at

Shanghai China

on

9/16/2021



City, State, Country

Date

Wanshi CHEN