

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT6576741

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
HUILIN XU	01/22/2021
SEYEDKIANOUSH HOSSEINI	02/21/2021
HUNG DINH LY	01/25/2021
JING LEI	01/22/2021
WANSHI CHEN	01/23/2021
PETER PUI LOK ANG	01/22/2021
KRISHNA KIRAN MUKKAVILLI	01/23/2021
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	QUALCOMM INCORPORATED
<b>Street Address:</b>	5775 MOREHOUSE DRIVE
<b>City:</b>	SAN DIEGO
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	92121-1714
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	17152477
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<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>	
<b>Phone:</b>	2028576000
<b>Email:</b>	patentdocket@arentfox.com
<b>Correspondent Name:</b>	ARENT FOX LLP
<b>Address Line 1:</b>	1717 K STREET, NW
<b>Address Line 4:</b>	WASHINGTON, D.C. 20006
<b>ATTORNEY DOCKET NUMBER:</b>	03028418949/201707
<b>NAME OF SUBMITTER:</b>	JAMES BINDSEIL
<b>SIGNATURE:</b>	/James Bindseil/
<b>DATE SIGNED:</b>	03/01/2021

**Total Attachments: 9**

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**ASSIGNMENT**

WHEREAS, WE,

1. Huilin XU, having a mailing address located at QUALCOMM Incorporated 5775 Morehouse Drive San Diego, CA 92121-1714,
2. Seyedkianoush HOSSEINI, having a mailing address located at QUALCOMM Incorporated 5775 Morehouse Drive San Diego, CA 92121-1714,
3. HungDinh LY, having a mailing address located at QUALCOMM Incorporated 5775 Morehouse Drive San Diego, CA 92121-1714,
4. Jing LEI, having a mailing address located at QUALCOMM Incorporated 5775 Morehouse Drive San Diego, CA 92121-1714,
5. Wanshi CHEN, having a mailing address located at QUALCOMM Incorporated 5775 Morehouse Drive San Diego, CA 92121-1714,
6. Peter Pui Lok ANG, having a mailing address located at QUALCOMM Incorporated 5775 Morehouse Drive San Diego, CA 92121-1714,
7. Krishna Kiran MUKKAVILLI, having a mailing address located at QUALCOMM Incorporated 5775 Morehouse Drive San Diego, CA 92121-1714,

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 TECHNIQUES FOR PHYSICAL DOWNLINK CONTROL CHANNEL (PDCCH) LIMITS FOR MULTIPLE CELLS SCHEDULING ONE CELL IN 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. 17/152477** filed **January 19, 2021**, **Qualcomm Reference Number 201707**, and all provisional applications relating thereto, together with **Provisional Application No. 62/964556**, filed **January 22, 2020**, **Qualcomm Reference Number 201707P1**, (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;

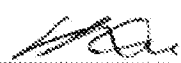
AND WE DO HEREBY authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications or registrations, to issue all patents for said INVENTIONS to said ASSIGNEE, its successors, 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 San Diego, CA, USA, on 01/22/2021   
City, State, Country Date Huilin XU

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Seyedkianoush HOSSEINI

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Hung Dinh LY

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Jing LEI

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Wanshi CHEN

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Peter Pui Lok ANG

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Krishna Kiran MUKKAVILLI

**PATENT**


QUALCOMM Ref. No. 201707

Page 3 of 3

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 \_\_\_\_\_  
City, State, Country Date Huilin XU

Done at San Diego, CA, on 02, 21, 2021  
City, State, Country Date   
Seyedkianoush HOSSEINI

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Hung Dinh LY

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Jing LEI

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City, State, Country Date Wanshi CHEN

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Peter Pui Lok ANG

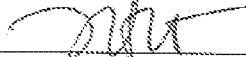
Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Krishna Kiran MUKKAVILLI

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City, State, Country Date Huilin XU

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Seyedkianoush HOSSEINI

Done at San Diego, CA, on 01/25/2021  
City, State, Country Date   
Hung Dinh LY

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Jing LEI

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City, State, Country Date Seyedkianoush HOSSEINI

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Hung Dinh LY

Done at San Diego  
CA, on 1/22/2021  
City, State, Country Date   
Jing LEI

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Wanshi CHEN

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Peter Pui Lok ANG

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Krishna Kiran MUKKAVILLI



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;

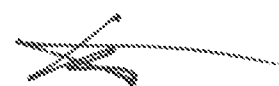
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City, State, Country Date Seyedkianoush HOSSEINI

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Hung Dinh LY

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Jing LEI

Done at San Jose CA USA, on 1/23/2021  
City, State, Country Date  Wanshi CHEN

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Peter Pui Lok ANG

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Krishna Kiran MUKKAVILLI

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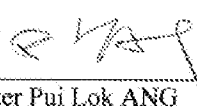
Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Hailin XU

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City, State, Country Date Wanshi CHEN

Done at San Diego, CA, on 1/22/2021  
City, State, Country Date   
Peter Pui Lok ANG

Done at \_\_\_\_\_, on \_\_\_\_\_  
City, State, Country Date Krishna Kiran MUKKAVILLI

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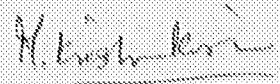
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City, State, Country Date Peter Pui Lok ANG

Done at San Diego, CA, on 01/23/2021  
City, State, Country Date   
Krishna Kiran MURKAVILLI