

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT6652042

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
LE LIU	03/21/2021
ALBERTO RICO ALVARINO	04/07/2021
PETER GAAL	03/30/2021
KAZUKI TAKEDA	03/31/2021
AYAN SENGUPTA	04/02/2021
WANSHI CHEN	04/04/2021
XIAOXIA ZHANG	04/04/2021
JUAN MONTOJO	04/11/2021
TAO LUO	04/02/2021
PRASAD REDDY KADIRI	03/30/2021

RECEIVING PARTY DATA

Name:	QUALCOMM INCORPORATED
Street Address:	5775 MOREHOUSE DRIVE
City:	SAN DIEGO
State/Country:	CALIFORNIA
Postal Code:	92121-1714

PROPERTY NUMBERS Total: 2

Property Type	Number
Application Number:	17214519
Application Number:	63001804

CORRESPONDENCE DATA

Fax Number: (303)473-2720

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: 3034732700

Email: bmssoares@hollandhart.com

Correspondent Name: MICHAEL DRAPKIN

Address Line 1: P.O. BOX 11583

Address Line 4: SALT LAKE CITY, UTAH 84147

ATTORNEY DOCKET NUMBER:	PS192.01 (107922.1200)
NAME OF SUBMITTER:	MICHAEL L. DRAPKIN
SIGNATURE:	/Michael L. Drapkin/
DATE SIGNED:	04/12/2021

Total Attachments: 13

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ASSIGNMENT

WHEREAS, WE,

1. **Le LIU**, having a mailing address located at **5775 Morehouse Drive, San Diego, CA 92121**,
2. **Alberto RICO ALVARINO**, having a mailing address located at **5775 Morehouse Drive, San Diego, CA 92121**,
3. **Peter GAAL**, having a mailing address located at **5775 Morehouse Drive, San Diego, CA 92121**,
4. **Kazuki TAKEDA**, having a mailing address located at **5775 Morehouse Drive, San Diego, CA 92121**,
5. **Ayan SENGUPTA**, having a mailing address located at **5775 Morehouse Drive, San Diego, CA 92121**,
6. **Wanshi CHEN**, having a mailing address located at **5775 Morehouse Drive, San Diego, CA 92121**,
7. **Xiaoxia ZHANG**, having a mailing address located at **5775 Morehouse Drive, San Diego, CA 92121**,
8. **Juan MONTOJO**, having a mailing address located at **5775 Morehouse Drive, San Diego, CA 92121**,
9. **Tao LUO**, having a mailing address located at **5775 Morehouse Drive, San Diego, CA 92121**,
10. **Prasad Reddy KADIRI**, having a mailing address located at **5775 Morehouse Drive, San Diego, CA 92121**,

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

MULTICAST FEEDBACK AND RETRANSMISSION FOR TRANSPORT BLOCK GROUPING (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). 17/214,519 filed March 26, 2021, Qualcomm Reference Number 203313**, together with **U.S Provisional Application No(s). 63001804, filed March 30, 2020, Qualcomm Reference Number 203313P1**, (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;

PATENT

Qualcomm Reference Number: 203313

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

Done at Santa Clara, CA, on 3/21/2021 *Le Liu*
City, State, Country Date Le LIU

Done at _____, on _____
City, State, Country Date Alberto RICO ALVARINO

Done at _____, on _____
City, State, Country Date Peter GAAL

Done at _____, on _____
City, State, Country Date Kazuki TAKEDA

Done at _____, on _____
City, State, Country Date Ayan SENGUPTA

Done at _____, on _____
City, State, Country Date Wanshi CHEN

Done at _____, on _____
City, State, Country Date Xiaoxia ZHANG

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 Le LIU

Done at San Diego, CA, US, on 4/27/21
City, State, Country Date

Alberto RICO ALVARINO

Done at _____, on _____
City, State, Country Date Peter GAAL

Done at _____, on _____
City, State, Country Date Kazuki TAKEDA

Done at _____, on _____
City, State, Country Date Ayan SENGUPTA

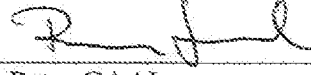
Done at _____, on _____
City, State, Country Date Wanshi CHEN

Done at _____, on _____
City, State, Country Date Xiaoxia ZHANG

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 Le LIU

Done at _____, on _____
City, State, Country Date Alberto RICO ALVARINO

Done at San Diego, CA, USA, on 03/30/2021
City, State, Country Date 
Peter GAAL

Done at _____, on _____
City, State, Country Date Kazuki TAKEDA

Done at _____, on _____
City, State, Country Date Ayan SENGUPTA

Done at _____, on _____
City, State, Country Date Wanshi CHEN

Done at _____, on _____
City, State, Country Date Xiaoxia ZHANG

PATENT

Qualcomm Reference Number: 203313

Page 4 of 5

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

Le LIU

Done at _____, on _____
City, State, Country Date

Alberto RICO ALVARINO

Done at _____, on _____
City, State, Country Date

Peter GAAL

Done at Tokyo, Japan, on Mar. 31. 2021
City, State, Country Date


Kazuki TAKEDA

Done at _____, on _____
City, State, Country Date

Ayan SENGUPTA

Done at _____, on _____
City, State, Country Date

Wanshi CHEN

Done at _____, on _____
City, State, Country Date

Xiaoxia ZHANG

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 Le LIU

Done at _____, on _____
City, State, Country Date Alberto RICO ALVARINO

Done at _____, on _____
City, State, Country Date Peter GAAL

Done at _____, on _____
City, State, Country Date Kazuki TAKEDA

Done at SANDIEGO, CA, USA, on 04/02/2021
City, State, Country Date Ayan SENGUPTA

Done at _____, on _____
City, State, Country Date Wanshi CHEN

Done at _____, on _____
City, State, Country Date Xiaoxia ZHANG

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

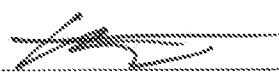
Done at _____, on _____
City, State, Country Date Le LIU

Done at _____, on _____
City, State, Country Date Alberto RICO ALVARINO

Done at _____, on _____
City, State, Country Date Peter GAAL

Done at _____, on _____
City, State, Country Date Kazuki TAKEDA

Done at _____, on _____
City, State, Country Date Ayan SENGUPTA

Done at San Diego, CA, on 4/10/22
City, State, Country Date 
Wanshi CHEN

Done at _____, on _____
City, State, Country Date Xiaoxia ZHANG

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 Le LIU

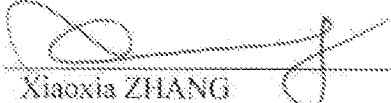
Done at _____, on _____
City, State, Country Date Alberto RICO ALVARINO

Done at _____, on _____
City, State, Country Date Peter GAAL

Done at _____, on _____
City, State, Country Date Kazuki TAKEDA

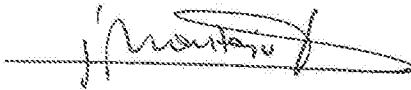
Done at _____, on _____
City, State, Country Date Ayan SENGUPTA

Done at _____, on _____
City, State, Country Date Wanshi CHEN

Done at San Diego, on 04/04/2021
City, State, Country Date  Xiaoxia ZHANG

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 4/11/21
City, State, Country Date



Juan MONTOJO

Done at _____, on _____
City, State, Country Date

Tao LUO

Done at _____, on _____
City, State, Country Date

Prasad Reddy KADIRI

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 Juan MONTOJO

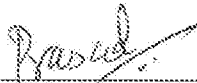
Done at San Jose, CA, on 08/01/08
City, State, Country Date Tao LUO

Done at _____, on _____
City, State, Country Date Prasad Reddy KADIRI

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 Juan MONTOJO

Done at _____, on _____
City, State, Country Date Tao LUO

Done at SAN DIEGO, CA, USA, on 03/30/2021
City, State, Country Date 
Prasad Reddy KADIRI