506452825 01/15/2021

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
XIAOXIA ZHANG	10/24/2020
TANUMAY DATTA	12/18/2020
JING SUN	11/06/2020
ANANTA NARAYANAN THYAGARAJAN	10/26/2020
KAPIL BHATTAD	10/27/2020

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:	16909532

CORRESPONDENCE DATA

Fax Number: (214)855-8200

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: 2148558133

Email: mitzi.booth@nortonrosefulbright.com

Correspondent Name: T. MEANEY/NORTON ROSE FULBRIGHT US LLP

Address Line 1:2200 ROSS AVE, SUITE 3600Address Line 4:DALLAS, TEXAS 75201-7932

ATTORNEY DOCKET NUMBER:	QLXX.P1329US/1001117677
NAME OF SUBMITTER:	THOMAS J. MEANEY
SIGNATURE:	/THOMAS J. MEANEY/
DATE SIGNED:	01/15/2021

Total Attachments: 7

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PATENT REEL: 054935 FRAME: 0934

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ASSIGNMENT

WHEREAS, WE,

- 1. Xiaoxia ZHANG, having a mailing address located at 5775 Morehouse Drive; San Diego, California 92121-1714.
- 2. Tanumay DATTA, having a mailing address located at 5775 Morehouse Drive; San Diego, California 92121-1714,
- 3. Jing SUN, having a mailing address located at 5775 Morehouse Drive; San Diego, California 92121-1714,
- 4. Ananta Narayanan THYAGARAJAN, having a mailing address located at 5775 Morchouse Drive; San Diego, California 92121-1714.
- 5. Kapil BHATTAD, having a mailing address located at 5775 Morehouse Drive; San Diego, California 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 ENHANCED TRANSMISSION OPPORTUNITIES FOR SOUNDING REFERENCE SIGNALS (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). 16/909,532, filed June 23, 2020, Qualcomm Reference Number 193406, and all provisional applications relating thereto, including India Patent Application No. 201941025870, filed June 28, 2019, Qualcomm Reference Number 193406IN1, (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;

Done at	San Diego	, on	10/14/2010	1 Amount
	City, State		Date	Xiaoxia ZHANG
Done At		, On		
	City, State	•	Date	Tanumay DATTA
Done At		, On		
	City, State		Date	Jing SUN
Done At		, On		
	City, State		Date	Ananta Narayanan THYAGARAJAN
Done At		, On		
•	City, State		Date	Kapil BHATTAD

Done at _		on ,		
	City, State		Date	Xiaoxia ZHANG
Done At	Bangalore	, On	12/18/2020	Janumay Dett
	Bangalore City, State		Date	Tanumay DATTA
Done At		, On		
	City, State		Date	Jing SUN
Done At		, On		
	City, State		Date	Ananta Narayanan THYAGARAJAN
Done At		, On		
	City, State		Date	Kapil BHATTAD

Done at		, on		
	City, State		Date	Xiaoxia ZHANG
Done At		, On		
	City, State		Date	Tanumay DATTA
Done At	San Diego, C	, On	11/6/2020	1212
	City, State		Date	Jing SUN
Done At		, On		
	City, State		Date	Ananta Narayanan THYAGARAJAN
Done At		, On		
	City, State		Date	Kapil BHATTAD

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	City, State		Date	Xiaoxia ZHANG
Done At		, On		
•	City, State		Date	Tanumay DATTA
Done At		, On		
· · ·	City, State		Date	Jing SUN
Done Ai	Senzaluru.	, On 	10/26/20	T. A. Maryanan
	Coy, State		Date	Anania Narayanan THYAGARAJAN
Done At		, Oa		
	City State	***	Date	Kanil BHATTAD

Done at		_ , on		
	City, State		Date	Xiaoxia ZHANG
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	City, State		Date	Tanumay DATTA
Done At		, On		
	City, State	-	Date	Jing SUN
Done At		, On		
	City, State	-	Date	Ananta Narayanan THYAGARAJAN
Done At	Bongalore, Indu	, On	10/27/2020	Kapid
	City, State		Date	Kapii BHATTAD

PATENT REEL: 054935 FRAME: 0942

RECORDED: 01/15/2021