PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HUILIN XU	04/04/2021
YONGJUN KWAK	04/11/2021
YUCHUL KIM	04/06/2021
JING LEI	04/07/2021
HWAN JOON KWON	05/05/2021

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:	17211673

CORRESPONDENCE DATA

Fax Number:

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.

Email: patentdocket@arentfox.com,brianna.nesmith@arentfox.com

Correspondent Name: ARENT FOX LLP
Address Line 1: 1717 K STREET, NW

Address Line 4: WASHINGTON, D.C. 20006-5344

ATTORNEY DOCKET NUMBER:	030284.19293/2102464	
NAME OF SUBMITTER:	BRIANNA NESMITH	
SIGNATURE:	/Brianna Nesmith/	
DATE SIGNED:	05/12/2021	

Total Attachments: 7

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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. **Yongjun KWAK**, having a mailing address located at QUALCOMM Incorporated 5775 Morehouse Drive San Diego, CA 92121-1714,
- 3. **Yuchul KIM**, 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. **Hwan Joon KWON**, 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 RADIO FREQUENCY ENERGY HARVESTING INDICATION SIGNAL (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). 17/211,673 filed March 24, 2021, Qualcomm Reference Number 2102464, and all provisional applications relating thereto, (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, C	4 05A on 04/0	4/201	40.	
	City, State, Country	Date		Huilin XU	
Done at		, on			
	City, State. Country		Date	Yongjun KWAK	
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Done at		, on			
	City, State, Country		Date	Yuchul KIM	
Done at	***************************************	, on			
	City, State, Country		Date	Jing LEI	
Done at	****	, on			
	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	, on		
	City, State, Country	Date	Huifin XU
Done at	San Diego, CA USA, on City, State, Country	4-11-2021	26/BB
	City, State, Country	Date	Tongjun KWAK
Done at	on , on		
	City, State, Country	Date	Yuchul KIM
Done at	.08		
	City, State, Country	Date	Jing LEI
Done at	• on _		
	City, State, Country	Date	Hwan Joon K WON

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

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	City, State, Country	Date	Hullin XU
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	City, State, Country	Date	Yongjun KWAK
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011 0 111	Sunfreyor (A. US) City, State, Country	Date	Yuchul KIM
one at	, on		
one at	City, State, Country	Date	Jing LEI
me at	, on		
Heronog	City, State, Country	Date	Hwan Joon KWON

PATENT QUALCOMM Ref. No. 2102464 Page 3 of 3

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, Cour	ntry	Date	Huilin XU
Done at	, on		
City, State, Cou	ntry	Date	Yongjun KWAK
Done at	, on		
City, State, Cou	ntry	Date	Yuchul KIM
SanDilo.	OA.	. / - /	
SanDyo, Done at USA		4/7/2021	
City, State, Cou	ntry	Date	Jing LEI
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Done at	, on		
City, State, Cou	ntry	Date	Hwan Joon KWON

PATENT QUALCOMM Ref. No. 2192464 Page 3 of 3

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

Done at	City, State, Country	on		D. C. WI
	City, State, Country	Date		Huilin XU
Done at	City, State, Country	on	Date	Yongjun KWAK
Oone at	City, State, Country	on	Date	Yuchul KIM
Done at	City, State, Country	on	Date	Jing LEI
S Done at	and ago, CA	on\$/5/:	Ze Z.	227 Hwan Joon KWON