506827268 08/19/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6874088

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YONGLE WU	05/04/2021
TING KONG	05/07/2021
ARVIND VARDARAJAN SANTHANAM	05/15/2021
YONG LI	05/26/2021
JUN ZHU	07/27/2021
RAGHU NARAYAN CHALLA	05/05/2021
VISWANATH SANKARAN	05/24/2021
NAGARAJU GAJULA	05/19/2021

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:	17104948
Application Number:	62941516

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: skfredrickson@hollandhart.com

Correspondent Name: MICHAEL DRAPKIN **Address Line 1:** P.O. BOX 11583

Address Line 4: SALT LAKE CITY, UTAH 84147

ATTORNEY DOCKET NUMBER: PX0550.01 (111334.0565)

NAME OF SUBMITTER: MICHAEL L. DRAPKIN

PATENT 506827268 REEL: 057234 FRAME: 0696

SIGNATURE:	/Michael L. Drapkin/
DATE SIGNED:	08/19/2021
Total Attachments: 10	
source=200370_Assignment#page1.tif	
source=200370_Assignment#page2.tif	
source=200370_Assignment#page3.tif	
source=200370_Assignment#page4.tif	
source=200370_Assignment#page5.tif	
source=200370_Assignment#page6.tif	
source=200370_Assignment#page7.tif	
source=200370_Assignment#page8.tif	
source=200370_Assignment#page9.tif	
source=200370_Assignment#page10.tif	

ASSIGNMENT

WHEREAS, WE,

- 1. Yongle WU, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121,
- 2. Ting KONG, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121.
- 3. **Arvind Vardarajan SANTHANAM,** having a mailing address located at **5775 Morehouse Drive, San Diego, CA 92121**,
- 4. Yong LI, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121.
- 5. Jun ZHU, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121.
- 6. Raghu Narayan CHALLA, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121,
- 7. Viswanath SANKARAN, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121,
- 8. Nagaraju GAJULA, 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 **DYNAMIC BEAM SWEEP PROCEDURE** (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). 17/104,948 filed November 25, 2020 Qualcomm Reference No. 200370, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 62/941,516, filed November 27, 2019, Qualcomm Reference No. 200370P1, (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.

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, (A), c City, State	m <u>May 4th, 20</u> 2/ DATE	ON Mongle Yough Wo
Done at _	City, State	mDATE	Ting KONG
Done at _	City, State		Arvind Vardarajan SANTHANAM
Done at	City. State		Yong LI

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.

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)	
χ	City, State	DATE	Yongle WU
Done at	San Diep, CA ?	m 05107/202	
	City, State	₀₀ <u>σς/σ//2υ</u> 2 DATE	Ting KONG
Done at	, s e	on	
	City, State	DATE	Arvind Vardarajan SANTHANAM
Done at	x ()n	
	City, State	DATE	Yong I I

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.

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 those presents.

Done at			************	X?	
	City, State	DATE		Yongle WU	
Done at	*0	8			
	City, State	DATE	•	Ting KONG	
	ian Dlega USA	05/15/200	2.]	bush	
	City, State	DATE	Arvind Va	rdarajan SANTHA	NAM
Done at	City, State	BATE		Yong Li	

PATENT QUALCOMM Ref. No. 200370 Page 3 of 4

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.

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 _	, on		
	City, State	DATE	Yongle WU
Done at _	, on City, State	N.	
	City, State	DATE	Ting KONG
Done at _	on_		
	City, State	DATE	Arvind Vardarajan SANTHANAM
Done at ≦	79 1990, CA, on	5/26/2021	
	City, State	DATE	Yong LI

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

Done at	, on		
		Date	Yongle WU
Done at .	City, State, Country		Ting KONG
Done at .	, on City, State, Country		Arvind Vardarajan SANTHANAM
Done at .	, on City, State, Country		Yong LI
Done at .	San Diego,CA , on City, State, Country	07/27/2021 	Jun ZHU
Done at _.	, on City, State, Country		Raghu Narayan CHALLA
			Viswanath SANKARAN

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	, on _		
	City, State	DATE	Jun ZHU
Done at S	an diego, CA, USA _{on} _	5/5/2021	Thaplastury
	City, State	DATE	Raghu Narayan CHALLA
Done at _	, on _		
	City, State	DATE	Viswanath SANKARAN
Done at _	, on		
	City. State	DATE	Nagaraju GAJULA

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	, Ol	1	
	City, State	DATE	Jun ZHU
Done at _	City, State	n	Raghu Narayan CHALLA
Done at	<u>San Die 60</u> , City, State	on <u>5/24/2021</u> DATE	Viswanath SANKARAN
Done at	City State	on DATE	Nagaraju GAJULA

PATENT QUALCOMM Bel. No. 200370 Page 4 of 4

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	, On	
City, State	DATE	Jun ZHU
Done at	,08	
City, State	DATE	Raghu Narayan CHALLA
Done at City, State	DATE	Viswanath SANKARAN
Done at <u>San Die 40,</u> C	A . 015/19/2021	Nagarriu
City, State	DATE	Nagaraju GNJULA

PATENT REEL: 057234 FRAME: 0707

RECORDED: 08/19/2021