507551841 10/19/2022 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7598730

SUBMISSION TYPE:		
NATURE OF CONVEYANCE: ASSIGNMENT		
CONVEYING PARTY DATA		
	Name	Execution Date
ABHISHEK PRAMOD PATIL		07/29/2019
YONGCHUN XIAO		07/09/2019
RAVI GIDVANI	07/12/2019	
SANDIP HOMCHAUDHURI	08/28/2019	
PRADEEP KUMAR YENGANTI	08/19/2019	
ARUL DAVIDSON EMMANUEL	07/11/2019	
JAMES SIMON CHO	07/10/2019	
PADMANABHAN VENKATARAM	07/11/2019	
GEORGE CHERIAN	07/29/2019	
ALFRED ASTERJADHI	07/23/2019	
JOUNI KALEVI MALINEN	07/20/2019	

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:	17814470		

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:	dlwilliams@hollandhart.com				
Correspondent Name:	HOLLAND & HART LLP/QUALCOMM				
Address Line 1:	P.O. BOX 11583				
Address Line 4:	SALT LAKE CITY, UTAH 84147				

ATTORNEY DOCKET NUMBER:	PW467IN.US* (83043.2078)	
NAME OF SUBMITTER:	J. SCOTT KARREN	
SIGNATURE:	/J. Scott Karren/	
DATE SIGNED:	10/19/2022	

Total Attachments: 28

source=184094 ASG 2019-09-04 signed#page1.tif source=184094 ASG 2019-09-04 signed#page2.tif source=184094 ASG 2019-09-04 signed#page3.tif source=184094_ASG_2019-09-04_signed#page4.tif source=184094_ASG_2019-09-04_signed#page5.tif source=184094 ASG_2019-09-04_signed#page6.tif source=184094 ASG 2019-09-04 signed#page7.tif source=184094_ASG_2019-09-04_signed#page8.tif source=184094 ASG 2019-09-04 signed#page9.tif source=184094 ASG 2019-09-04 signed#page10.tif source=184094 ASG 2019-09-04 signed#page11.tif source=184094_ASG_2019-09-04_signed#page12.tif source=184094 ASG 2019-09-04 signed#page13.tif source=184094 ASG 2019-09-04 signed#page14.tif source=184094 ASG 2019-09-04 signed#page15.tif source=184094_ASG_2019-09-04_signed#page16.tif source=184094_ASG_2019-09-04_signed#page17.tif source=184094 ASG 2019-09-04 signed#page18.tif source=184094 ASG 2019-09-04 signed#page19.tif source=184094 ASG 2019-09-04 signed#page20.tif source=184094_ASG_2019-09-04_signed#page21.tif source=184094_ASG_2019-09-04_signed#page22.tif source=184094 ASG 2019-09-04 signed#page23.tif source=184094 ASG 2019-09-04 signed#page24.tif source=184094_ASG_2019-09-04_signed#page25.tif source=184094_ASG_2019-09-04_signed#page26.tif source=184094 ASG 2019-09-04 signed#page27.tif source=184094 ASG 2019-09-04 signed#page28.tif

ASSIGNMENT

WHEREAS, WE,

1. Abhishek Pramod PATIL, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714

2. Yongchun XIAO, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714

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10. Alfred ASTERJADHI, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714

11. Jouni Kalevi MALINEN, having a mailing address located at 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 **RECEPTION OF MANAGEMENT FRAMES FOR MULTIPLE BASIC SERVICES SETS** (BSSs) (collectively the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefor; and

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 soid, 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). 16/505,506 filed July 8, 2019, Qualcomm Reference No. 184094 and all provisional applications relating thereto, together with, Indian Provisional Application No(s). 201841025518 filed July 9, 2018, Qualcomm Reference No. 184094IN1 (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such 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 remedics 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	Sam Dicat	. on 7-1241	11 Action Abhishek Pramod PATIL
in the first station	City, State	Daie	Abhishek Pramod PATIL
Done at		, OB	
	City, State	, on Date	Yongchun XIAO
Done at		, 09	
	City, State	Date	Ravi GIDVANI
Done at		• OB	
	City, State	Date	Sandip HOMCHAUDHURI
Done at		• 011	
ti ti si di seco	City, State	., 011 Date	Pradecp Kumar YENGANTI
Done at		• OÜ	
	City, State	Date	Arul Davidson EMMANUEL
Done at		, 08	
	City, State	_, 001 Daie	James Simon CHO
Done at		, on Date	
	City, State	Date	Padmanabhan Venkataraman KARTHIC

Done at \underline{San} $\underline{Oic}_{1, \dots, on}$ $\underline{\gamma/2q/1 p'}$	nininis Internet
City, State Date George CHERI	NN A
Done at <u>SAN 81569 (A</u> on <u>07/13/2019</u> <u>Lagente</u>	
City, State Date Alfred ASTERJ	ADIII
Done at, on	
City, State Date Jouni Kalevi M.	ALINEN

ASSIGNMENT

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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.

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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	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, on		
	City, State		Date	Abhishek Pramod PATII.
Done at		, on		
	City, State		Date	Yongchun XIAO
Done at	Son JOX, CA	, on	7/12/2019	Ravi GIDVANI
	City, State		Date	Ravi GIDVANI
Done at		. on		
	City, State		Date	Sandip HOMCHAUDHURI
Dome at		. 00		
	City, State	,	Date	Pradeep Kumar YENGANTI
Done at		. on		
	City, Siate	,	Date	Arul Davidson EMMANUEL
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exore ac	City, Siate	5 0 W	Date	James Simon CHO
Done at		, on		
	City, State		Date	Padmanabhan Venkataraman KARTHIC

Done at		, on		
	City, State		Date	George CHERIAN
Done at		, on		
	City, State		Date	Alfred ASTERJADHI
Done at		, on		
	City, State		Date	Jouni Kalevi MALINEN

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Done at	·	, ØB	
	City. State	Date	Abhishek Pramod PATIL
Done at∫	on Jose, CA	. on 7/9/2019	Vongchun XIAO
	City, State	Date	Yongchun XIAO
Done at_		<u>, 08</u>	
	City, State	Date	Ravi GIDVANI
Done at		, 0 0	
	City, State	, 00 Date	Sandip HOMCHAUDHURI
Done at		, ON Date	
	City. State	Date	Pradeep Kumar YENGANTI
Done at		, 08	
	City, State	Date	Arul Davidson EMMANUEL
Done at		, ön	
	Cny, State	Date	James Simon CHO
Dime at _		• OB	
	CBy, State	Date	Padmanabhan Venkataraman KARTHIC

	Done at		00	
		City, State	Date	George CHERIAN
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	Done at		on	
		City, State	Date	Alfred ASTERJADHI
		and a start of a	o fast facia	A Am
	Done at 7	Wall, PINLAND,	on <u>71361399</u>	
		City, State	Date	Jouini Kalevi MALINEN

ASSIGNMENT

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Done at		, 011		
	City, State		Date	Abhishek Pramod PATIL
Done at _	City, State	_, on _		
·	City, State		Date	Yongchun XIAO
Done at_	City, State	_, on		
	City, State		Date	Ravi GIDVANI
Done at	<u>Shri yört. (A</u>	, on	8/28/19	
	City, State		Date	Sandip HOMCHAUDHURI
Done at_		, on		
	City, State		Date	Pradeep Kumar YENGANTI
Done at_		, on		
	City, State		Date	Arul Davidson EMMANUEL
Done at _		, on _		
	City, State		Date	James Simon CHO
Done at		, on		
	City, State		Date	Padmanabhan Venkataraman KARTHIC

Done at		, on		
	City, State		Date	George CHERIAN
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	City, State		Date	Jouni Kalevi MALINEN

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9. George CHERIAN, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714

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11. Jouni Kalevi MALINEN, having a mailing address located at 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 **RECEPTION OF MANAGEMENT FRAMES FOR MULTIPLE BASIC SERVICES SETS** (BSSs) (collectively the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefor; and

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 soid, 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). 16/505,506 filed July 8, 2019, Qualcomm Reference No. 184094 and all provisional applications relating thereto, together with, Indian Provisional Application No(s). 201841025518 filed July 9, 2018, Qualcomm Reference No. 184094IN1 (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such 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 remedics 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		, on	
	City, State	Date	Abhishek Pramod PATIL
Done at_		, on	
N.	City, State	Date	Yongehun XIAO
Done at		, 00	
	City, State	Date	Ravi GIDVANI
Done at		,08	
	City, State	Date	Sandip HOMCHAUDHURI
Done at f	remant, CA	, on 08 19 2019	Pradeep Kilmar YENGANTI
	City, State	Date	Pradcep Kilmar YENGANTI
Done at		, on Date	
	City, State	Date	Arul Davidson EMMANUEL
Done at		2 ON	
	City, State	Date	James Simon CHO
Done at _		• 90	
	City, State	Date	Padmanabhan Venkataraman KARTHIC

Done at		, on		
	City, State		Date	George CHERIAN
Done at		, on		
	City, State		Date	Alfred ASTERJADHI
Done at		, on		
	City, State		Date	Jouni Kalevi MALINEN

ASSIGNMENT

WHEREAS, WE,

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Done at		, on	
	Cíty, State	Dati	Abhishek Pramod PATIL
Done at		• 08	
	City, State	Date	Yongchun XIAO
Done at			
	City, State	Date	Ravi GIDVANI
Done at	City, State	, 08	
	City, State	Date	Sandip HOMCHAUDHURI
Done at		00	
	City, State	Date	Pradeep Kumar YENGANTI
Done at		, 08	
	City, State	Date	Arul Davidson EMMANUEL
Done at	<u> Inn Juix, O</u>), on <u>~ 74 /</u>	2 10, 2019 James Simon CHO
	City, State	[∨] Dą¢ė	James Simon CHO
Done at_		, 08	
	City, State	Date	Padmanabhan Venkataraman KARTHIC

Done at		, on		
	City, State		Date	George CHERIAN
Done at		, on		
	City, State		Date	Alfred ASTERJADHI
Done at		, on		
	City, State		Date	Jouni Kalevi MALINEN

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City, State	Date	Abhishek Pramod PATIL
Done at		
City, State	Date	Yongchun XIAO
Done at	, on Date	
City, State	Date	Ravi GIDVANI
Done at		
City, State	Daie	Sandip HOMCHAUDHURI
Done at	, 08	
Ĉity, State	Date	Pradcep Kumar YENGANTI
Done at CHENNAL THE 24	315 on 11 ²⁶ 34.4 2.83.4	Arul Davidson EMMANUEL
City, State	Date	Arul Davidson EMMANUEL
Done at	<u>, ôn</u>	
City, State	Date	James Simon CHO
Done at CHEMMAL, D., 11	6200 11-12 2019 2019	Conderminal De Ser
City, State	Date	Padmanabhan Venkataraman KARTHIC

Done at		, on		
	City, State		Date	George CHERIAN
Done at		, on		
	City, State		Date	Alfred ASTERJADHI
Done at		, on		
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