505126929 10/04/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
EFTHYMIOS PHILIP PAPAGEORGIOU	07/27/2018
ARA BICAKCI	07/30/2018
SEAN JOEL LYN	07/30/2018
YUE LU	08/20/2018
NGAR LOONG ALAN CHAN	07/30/2018

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:	16013605

CORRESPONDENCE DATA

Fax Number: (310)201-5219

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: 310.277.7200

Email: Qualcomm-USPTO@seyfarth.com

Correspondent Name: SEYFARTH SHAW LLP

Address Line 1: 2029 CENTURY PARK EAST, SUITE 3500

Address Line 4: LOS ANGELES, CALIFORNIA 90067

ATTORNEY DOCKET NUMBER:	175569	
NAME OF SUBMITTER:	ALVIN FASHU-KANU	
SIGNATURE:	/Alvin Fashu-Kanu/	
DATE SIGNED:	10/04/2018	

Total Attachments: 5

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ASSIGNMENT

WHEREAS, WE,

- 1. Efthymios Philip PAPAGEORGIOU, a citizen of the United States of America, having a mailing address located at 2432 Hilgard Avenue, Berkeley, California 94709, and a resident of Berkeley, California,
- 2. Ara BICAKCI, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, and a resident of Belmont, California,
- 3. Sean Joel LYN, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, and a resident of Cupertino, California,
- 4. Yue LU, a citizen of the People's Republic of China, having a mailing address located at 2010 Lynn Avenue, Los Gatos, California 95032, and a resident of Los Gatos, California,
- 5. Ngar Loong Alan CHAN, a citizen of the Hong Kong having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, and a resident of San Jose, California,

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 MODULATOR (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). 16/013,605, filed June 20, 2018, Qualcomm

Reference No. 175569, 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	BerKeley CA, LOCATION	on <u>07/27/2018</u> DATE	Efthymius Philip PAPAGEORGIOU
Done at	LOCATION	on	Am BICAKCI
Done at	LOCATION ,	on	Scan Joel LYN
Done at	LOCATION ,	on	Yue LU
Done at		on	Ngar Loong Alan CHAN

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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			
	LOCATION	DATE	Efthymios Philip PAPAGEORGIOU	
Done at	SONTE , CA, on LOCATION	7/3º/2º/8 DATE	Ara BICAKCI	
Done at	Savi Jose CA, on LOCATION	7/30/2018 DATE	Scan Joel LYN	and the second s
Done at _	LOCATION , on	DATE	Yue LU	
Done at	San Jago AA, on LOCATION	7/20/18- DATE	Ngar Loong Alan CHAN	

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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	
~	LOCATION	, on	Efthymios Philip PAPAGEORGIOU
Done at	LOCATION	on DATE	Ara BICAKCI
Done at	LOCATION	on	Sean Joel LYN
Done at	(upertino	, on 08/20/29/8 DATE	Vue LU
Done at	LOCATION	s on	Ngar Loong Alan CHAN

PATENT REEL: 047070 FRAME: 0535

RECORDED: 10/04/2018