505489846 05/22/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5536650

SUBMISSION TYPE:		NEW ASSIGNMEN	Т			
NATURE OF CONVEYANCE:		ASSIGNMENT				
CONVEYING PARTY	Υ DATA					
		Name		Execution Date		
NIGEL POOLE				05/15/2019		
XUEFENG TANG				05/14/2019		
JIAN LIANG				05/14/2019		
RECEIVING PARTY	DATA					
Name:	QUALCO					
Street Address:	5775 MC	DREHOUSE DRIVE				
City:	SAN DIE	GO				
State/Country:	CALIFO	RNIA				
Postal Code:	92121-1	714				
Application Number	r: 1	6290761				
using a fax number, Phone: Email: Correspondent Nam Address Line 1: Address Line 4:	(<i>ill be sent to</i> <i>, if provided;</i> 2 ne: <i>A</i> 1 V	<i>if that is unsuccessful,</i> 13-629-7400 atentdocket@arentfox.co RENT FOX, LLP AND Q 717 K STREET, NW VASHINGTON, D.C. 200	it will be sent om, rachele.witt UALCOMM, IN 06-5344	wer@arentfox.com		
ATTORNEY DOCKET NUMBER:			030284.16874/185205			
SIGNATURE: DATE SIGNED:			/Rachele Wittwer/			
		05/22/2019				
Total Attachments: 6 source=185205 Signer source=185205 Signer source=185205 Signer source=185205 Signer	d Assignment d Assignment d Assignment	#page2.tif #page3.tif				

source=185205 Signed Assignment#page5.tif source=185205 Signed Assignment#page6.tif

> PATENT REEL: 049260 FRAME: 0562

PATENT QUALCOMM Ref. No. 185205 Page 1 of 2

ASSIGNMENT

WHEREAS, WE,

1. Nigel POOLE, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714.

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

3. Jian LIANG, 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 **METHODS AND APPARATUS FOR GPU CONTEXT REGISTER MANAGEMENT** (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). 16/290,761 filed March 1, 2019, Qualcomm Reference No. 185205, and all provisional applications relating thereto, (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such 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.

	City, State	Date	Nigel POOLE	
Done at	City, State	ş	Xuefeng TANG	
Done at	City, State	Date	Jian LIANG	

PATENT REEL: 049260 FRAME: 0564

PATENT QUALCOMM Ref. No. 185205 Page 1 of 2

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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;

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Done at	, on			
	City, State	Date	Nigel POOLE	
Done at	San Diess, CA, on	schul 10	Vinhans Tent	
	City, State	Date	Xucfeng TANG	
Done at				
	City, State	Date	Jian LIANG	

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Done at	, 0	8		
	City, State	Date	Nigel POOLE	
Done at		n		
	City, State	Date	Xuefeng TANG	
Done at 🕼	n Wige, CA .o	n <u>5-16-19</u>	Jane States	
	City, State	Date	Jian LIANG	·····

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RECORDED: 05/22/2019