506416879 12/22/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 EPAS ID: PAT6463636 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SERAG GADELRAB	07/22/2020
KARAMVIR CHATHA	12/18/2020
OFER ROSENBERG	12/20/2020

RECEIVING PARTY DATA

Name:	QUALCOMM INCORPORATED	
Street Address:	5775 MOREHOUSE DRIVE	
City:	SAN DIEGO	
State/Country:	CALIFORNIA	
Postal Code:	92121	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16810123

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.

Phone: 713 623 4844

Email: rross@pattersonsheridan.com, psdocketing@pattersonsheridan.com

Correspondent Name: PATTERSON + SHERIDAN, L.L.P. QUALCOMM

Address Line 1: 24 GREENWAY PLAZA, SUITE 1600

Address Line 4: HOUSTON, TEXAS 77046

ATTORNEY DOCKET NUMBER:	191367US
NAME OF SUBMITTER:	MARCUS W. HAMMACK
SIGNATURE:	/MARCUS W. HAMMACK/
DATE SIGNED:	12/22/2020

Total Attachments: 4

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PATENT 506416879 REEL: 054719 FRAME: 0411

ASSIGNMENT

WHEREAS, WE,

- 1. Serag GADELRAB, having a mailing address located at 5775 Morehouse Drive; San Diego, California 92121-1714,
- 2. Karamvir CHATHA, having a mailing address located at 5775 Morehouse Drive; San Diego, California 92121-1714,
- 3. Ofer ROSENBERG, having a mailing address located at 5775 Morehouse Drive; San Diego, California 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 ADAPTIVE QUANTIZATION FOR EXECUTION OF MACHINE LEARNING MODELS (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. 16/810,123, filed March 5, 2020, Qualcomm Reference No. 191367, 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

PATENT REEL: 054719 FRAME: 0412 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, 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 of No. 6	hong si	on <u>2015/22 (20</u> 06)		
C.	IIV STATE	DATE	Serig GADELRAB	1
Done at		on		
	TV STATE	DATE	Karamvir CHATHA	
Done as		on		
i i	TY STATE	DATE	Ofer ROSENBERG	•

PATENT REEL: 054719 FRAME: 0413 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;

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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	Serag GADELRAB	**************************************
Done af	HA DIEGO, CA, on	DEC 18 2020	PAR	
~	CITY, STATE	DATE	Karamvir CHATHA	
Done at	, on			
	CITY, STATE	DATE	Ofer ROSENBERG	

PATENT REEL: 054719 FRAME: 0414 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;

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, on			
CITY, STATE	DATE	Serag GADELRAB	
, on			
CITY, STATE	DATE	Karamvir CHATHA	
hanot Menashe, on City, STATE	Dec 20, 2020 DATE	Ofer Assenbell Ofer ROSENBERG	
	CITY, STATE, on CITY, STATE Agnot Menoshe, on	CITY, STATE DATE , on CITY, STATE DATE Agnot Metashe, on Sec 20, 2020	CITY, STATE DATE Serag GADELRAB On CITY, STATE DATE Karamvir CHATHA Ramot Menoshe, on Dec 20, 2020 Ofer Rasenbero

PATENT REEL: 054719 FRAME: 0415

RECORDED: 12/22/2020