506665051 05/16/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6711865

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the TYPOGRAPHICAL ERROR MADE ON THE EXECUTED ASSIGNMENT STATING THE INVENTORS ZIP CODE AS 62121 previously recorded on Reel 055064 Frame 0916. Assignor(s) hereby confirms the TYPOGRAPHICAL ERROR DOESN'T EXIST ON THE ATTACHED ASSIGNMENT AND THE INVENTORS ZIP CODE IS 92121.

CONVEYING PARTY DATA

Name	Execution Date
NAN HU	01/17/2021
VADIM SEREGIN	01/15/2021
MARTA KARCZEWICZ	01/25/2021

RECEIVING PARTY DATA

Name:	QUALCOMM INCORPORATED
Street Address:	5775 MOREHOUSE DRIVE
City:	SAN DIEGO
State/Country:	CALIFORNIA
Postal Code:	92121-1714

PROPERTY NUMBERS Total: 3

Property Type	Number
Application Number:	17006087
Application Number:	62896501
Application Number:	62907552

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.

Email: LAHO@POLSINELLI.COM

Correspondent Name: POLSINELLI

Address Line 1: THREE EMBARCADERO CENTER

Address Line 2: SUITE 2400

Address Line 4: SAN FRANCISCO, CALIFORNIA 94111

ATTORNEY DOCKET NUMBER: 195124 (659075)

NAME OF SUBMITTER: LINDSAY AHO

SIGNATURE: /LINDSAY AHO/

PATENT 506665051 REEL: 056254 FRAME: 0557

DATE SIGNED:	05/16/2021		
Total Attachments: 6			
source=195124 (659075) Patent Assign	ment Cover Sheet#page1.tif		
source=195124 (659075) Fully Executed Corrective Assignment#page1.tif			
source=195124 (659075) Fully Executed Corrective Assignment#page2.tif			
source=195124 (659075) Fully Executed	d Corrective Assignment#page3.tif		
source=195124 (659075) Fully Executed Corrective Assignment#page4.tif			
source=195124 (659075) Fully Executed	d Corrective Assignment#page5.tif		

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6521398

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
	01/17/2021
VADIM SEREGIN	01/15/2021
MARTA KARCZEWICZ	01/25/2021

RECEIVING PARTY DATA

Name:	QUALCOMM INCORPORATED
Street Address:	5775 MOREHOUSE DRIVE
City:	SAN DIEGO
State/Country:	CALIFORNIA
Postal Code:	92121-1714

PROPERTY NUMBERS Total: 3

Property Type	Number
Application Number:	17006087
Application Number:	62896501
Application Number:	62907552

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.

Email: LAHO@POLSINELLI.COM

Correspondent Name: POLSINELLI

Address Line 1: THREE EMBARCADERO CENTER

Address Line 2: SUITE 2400

Address Line 4: SAN FRANCISCO, CALIFORNIA 94111

ATTORNEY DOCKET NUMBER: 195124 (659075)

NAME OF SUBMITTER: LINDSAY AHO

SIGNATURE: /LINDSAY AHO/

DATE SIGNED: 01/28/2021

Total Attachments: 5

source=195124 (659075) Fully Executed Assignment#page1.tif

ASSIGNMENT

WHEREAS, WE,

- 1. NAN HU, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121.
- Vadim SEREGIN, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121.
- 3. Marta KARCZEWICZ, 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 ADAPTIVE LOOP **FILTER** (ALF) **SUB-PICTURE BOUNDARY** REUSING **PROCESSING FOR RASTER-SCAN SLICE BOUNDARY** (collectively "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, I do hereby acknowledge that I 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 under the Patent Cooperation Treaty (PCT), and/or in the United States, including but not limited to International Patent Application and all provisional applications relating thereto, together with Non-U.S. Provisional Application No(s). 17/006,087, filed August 28, 2020, Qualcomm Reference No. 195124, and all provisional applications relating thereto, together with U.S Provisional Application No(s). 62/896,501, filed September 5, 2019, Qualcomm Reference Number 195124P1, and U.S Provisional Application No(s). 62/907.552, filed September 27, 2019, Qualcomm Reference Number 195779P1 (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 nonprovisional applications, national phase applications, 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 I further do acknowledge and agree that I 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 I 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 I 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 I may be entitled, or that I may collect for any infringement or from any settlement or agreement related to any of said patents before or after issuance;

AND I HEREBY covenant and agree that I will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to me 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;

PATENT

Qualcomm Reference Number: 195124

Page 3 of 3

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

Done at	City, State	on <u>0//17/2021</u> Date	NANHU
Done at		on	
	City, State	Date	Vadim SEREGIN
Done at	····· • • • • • • • • • • • • • • • • •	on	
	City, State	Date	Marta KARCZEWICZ

Qualcomm Reference Number: 195124

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

Done at _		on	
	City, State	Date	NAN HU
Done at 🚊	<u> </u>	on_ <u>01/15/202)</u> Date	Voltage Sold Vadim SEREGIN
Done at _	,	on	
	City, State	Date	Marta KARCZEWICZ

PATENT

Qualcomm Reference Number: 195124

Page 3 of 3

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

Done at _		, on		
***	City, State	Date	NAN HU	
Done at _		. on		
racing are	City, State	Detc.	Vadim SEREGIN	
Done at _	san Digo	, on <u>0/125/202/1</u> Date	karowain	**************
	City, State 🐧 🗍	Date	Marta KARCZEWICZ	

PATENT REEL: 056254 FRAME: 0564

RECORDED: 05/16/2021