505948157 03/03/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5994877

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
HYEOKJIN LIM	02/28/2020
BHARANI CHAVA	02/03/2020
FOUA VANG	02/29/2020
SEUNG HYUK KANG	02/28/2020
VENUGOPAL BOYNAPALLI	03/02/2020

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:	16808336	

CORRESPONDENCE DATA

Fax Number: (202)857-6395

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: 213-629-7400

Email: rachele.wittwer@arentfox.com, patentdocket@arentfox.com

Correspondent Name: ARENT FOX, LLP AND QUALCOMM, INCORPORATED

Address Line 1: 1717 K STREET, NW

Address Line 4: WASHINGTON, D.C. 20006-5344

ATTORNEY DOCKET NUMBER:	030284.17735/193965	
NAME OF SUBMITTER:	RACHELE WITTTWER	
SIGNATURE:	/Rachele Witttwer/	
DATE SIGNED:	03/03/2020	

Total Attachments: 9

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ASSIGNMENT

WHEREAS, WE,

- 1. Hyeokjin LIM, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714,
- 2. Bharani CHAVA, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714,
- 3. Fou aVANG, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714,
- 4. Seung Hyuk KANG, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714,
- 5. Venugopal BOYNAPALLI, 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 **VERTICAL POWER GRID STANDARD CELL ARCHITECTURE** (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). 16/808,336 filed March 3, 2020 , Qualcomm Reference Number 193965, 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;

PATENT

Qualcomm Reference Number: 193965 Page 3 of 3

	ND WE HEREBY er conflicting with		will not execute any writing or do any act
Done at_	Stan Diegy , (on 2/28/2020 Date	Hyeokjin LIM
Done at	City, State	on	Bharaní CHAVA
Done at	City, State	On	Four VANG
Done at	City, State	on <u>428</u> 703 Date	Seung Hyuk KANG
Done at	<u>CANDI EGO,</u> City, State	on $3\sqrt{2\sqrt{20^3}}$	Venugopal BOYNARALLI

\$....

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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.

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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	, on	
City, State	Date	Hyeokjin LIM
Done at cork, ireland	, on <u>2/3/20</u>	Bharani CHAVA
210, , 2000	2.00	
Done at	, on	_
City, State	Date	Foua VANG
Done at	, on	
City, State	, OAA	Seung Hyuk KANG
D 4		
Done at	, on Date	Venugonal BOYNAPALLI
Cliv. State	Daie	venugodai DOYNAPALILI

ASSIGNMENT

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PATENT Qualcomm Reference Number: 193965

Page 3 of 3

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Done at	€°.	, on		
	City, State	E	Pate	Hyeokjin LIM
Done at	City, State	, on		
	City, State	D	Pate	Bharani CHAVA
Done at <u>Sa</u>	City, State	.on <u>2</u> D	/24/20 Pate	FourVANG
Done at		, on		
	City, State		ate	Seung Hyuk KANG
Done at		_, on		
	City, State	D	ate	Venugopal BOYNAPALLI

PATENT REEL: 052001 FRAME: 0430

RECORDED: 03/03/2020