PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2978076

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SHIQUN GU	08/06/2014
RATIBOR RADOJOIC	08/05/2014
DONG WOOK KIM	08/07/2014
JAE SIK LEE	07/30/2014

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14324136

CORRESPONDENCE DATA

Fax Number: (909)266-8002

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: (949) 681-8161

Email: qualcomm-pto@lozaip.com **Correspondent Name:** LOZA & LOZA, LLP/QUALCOMM 305 N. SECOND AVE., #127 Address Line 1: Address Line 4: **UPLAND, CALIFORNIA 91786**

ATTORNEY DOCKET NUMBER:	QCOM-2564US (144262)
NAME OF SUBMITTER:	JULIO LOZA
SIGNATURE:	/Julio Loza/
DATE SIGNED:	08/12/2014

Total Attachments: 5

source=144262_Assignment#page1.tif source=144262 Assignment#page2.tif source=144262_Assignment#page3.tif

source=144262_Assignment#page4.tif source=144262_Assignment#page5.tif

ASSIGNMENT

WHEREAS, WE,

- 1. Shiqun Gu, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, California,
- 2. Ratibor Radojcic, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, California
- 3. **Dong Wook Kim**, a citizen of Korea, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, California
- 4. Jae Sik Lee, a citizen of Korea, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, 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 INTEGRATED DEVICE COMPRISING HIGH DENSITY INTERCONNECTS IN INORGANIC LAYERS AND REDISTRIBUTION LAYERS IN ORGANIC LAYERS (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. 14/324,136 filed July 4, 2014, Qualcomm Reference No. 144262, and all provisional applications relating thereto, together with U.S. Provisional Application No. 61/988,853, filed May 5, 2014, Qualcomm Reference No. 144262P1, 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	Se Deg , on LOCATION	8/6/2014	5° G
	LOCATION	ĎATE	Shiqun Gu
Done at	, on _		
	LOCATION	DATE	Ratibor Radojcic
Done at	Sin Milgo, on LOCATION	8/7/2014	Dong Wook Kim
Done at	LOCATION on	DATE	Jae Sik Lee

PATENT QUALCOMM Ref. No. 144262 Page 3 of 3

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	Shiqun Gu
Done at	SAN DIEGO	_, on <u>8/5//4</u>	1 R lally
	LOCATION	DATE	Ratibor Radejok
Done at		_, on	
·	LOCATION	DATE	Dong Wook Kim
Done at		, on	
	LOCATION	TYATO	Tao Cib Tao

PATENT QUALCOMM Ref. No. 144262 Page 3 of 3

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	Shiqun Gu
Done at	, on		
	LOCATION	DATE	Ratibor Radojcic
Done at _	, on		
	LOCATION	DATE	Dong Wook Kim
Done at _	Jan Dieggon	07/30/2014 DATE	Jay Sik Lee

PATENT REEL: 033515 FRAME: 0565

RECORDED: 08/12/2014