504651305 11/20/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4698026

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YANJIE SUN	10/20/2017
JING-HWA CHEN	10/19/2017
ZHENYING LUO	10/19/2017
YAN KIT GARY HAU	10/19/2017
JISUN RYU	10/19/2017
ASHWIN DUGGAL	10/19/2017
KIHUN CHANG	10/19/2017
ZHENQI CHEN	10/19/2017
XINWEI WANG	10/20/2017
XIANDONG ZHANG	10/20/2017

RECEIVING PARTY DATA

Name:	QUALCOMM Incorporated	
Street Address:	5775 Morehouse Drive	
Internal Address:	Patent Department/Central Administration	
City:	San Diego	
State/Country:	CALIFORNIA	
Postal Code:	92121	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15706242

CORRESPONDENCE DATA

Fax Number: (858)658-2502

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: 858-845-4265

Email: us-docketing@qualcomm.com
Correspondent Name: QUALCOMM INCORPORATED

Address Line 1: 5775 MOREHOUSE DR.

Address Line 4: SAN DIEGO, CALIFORNIA 92121

PATENT REEL: 044182 FRAME: 0104

504651305

ATTORNEY DOCKET NUMBER:	172824
NAME OF SUBMITTER:	JOSEPH SALAZAR
SIGNATURE:	/JOSEPH SALAZAR/
DATE SIGNED:	11/20/2017

Total Attachments: 3

source=172824_ASG_2017_11_20#page1.tif source=172824_ASG_2017_11_20#page2.tif source=172824_ASG_2017_11_20#page3.tif

> PATENT REEL: 044182 FRAME: 0105

ASSIGNMENT

WHEREAS, WE,

- 1. Yanjie SUN, a citizen of the People's Republic of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121, and a resident of Lexington, MA,
- 2. Jing-Hwa CHEN, a citizen of Taiwan, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of Sudbury, MA,
- 3. Zhenying LUO, a citizen of the People's Republic of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of Wayland, MA,
- 4. Yan Kit Gary HAU, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of Westford, MA,
- 5. Jisun RYU, a citizen of the Republic of Korea, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of Marlborough, MA,
- 6. Ashwin DUGGAL, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of Jamaica Plain, MA,
- 7. Kihun CHANG, a citizen of the Republic of Korea, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of Shrewsbury, MA,
- 8. ZhenQi CHEN, a citizen of the People's Republic of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of Shirley, MA,
- 9. Xinwei WANG, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of Dunstable, MA,
- 10. Xiangdong ZHANG, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of Westford, MA,

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 APPARATUSES FOR RUGGEDIZING A POWER AMPLIFIER AGAINST BREAKDOWN USING HARMONIC TUNING (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

PATENT REEL: 044182 FRAME: 0106 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, including but not limited to, U.S. Application No(s). 15/706,242 filed September 15, 2017, Qualcomm Reference No. 172824, 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 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 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;

PATENT REEL: 044182 FRAME: 0107 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 Leangton, MA, on 10/20/17 LOCATION DATE	Yanjie SUN
Done at Suddyng Man, on 10/19/19 LOCATION DATE	Jing-Hwa CHEN
Done at Way and MA on 10/19/17	
Done at Boxonous MA, on 10/19/17 LOCATION DATE	Zhenying LUO
	Yan Kit Gary HAU
Done at Boxhorough, MA, on 10/19/19 LOCATION DATE	Jisun RYU
Done at James Plant Mr on 10/19/17 LOCATION DATE	Ashwin DUGGAL
Done at Exporoush M, on 10/19/17 LOCATION DATE	Kihun CHANG
Done at Shirley MA, on 10/19/17 LOCATION DATE	ZhenQi CHEN
Done at Location Date	Xinwei WANG
Done at Box borough, on 10/20/17 LOCATION DATE	Xiangdong ZHANG
	AND THE POST OF TH

PATENT REEL: 044182 FRAME: 0108

RECORDED: 11/20/2017