

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5549428

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the SPELLING OF INVENTOR #10 NAME ON ASSIGNMENT COVERSHEET previously recorded on Reel 044182 Frame 0104. Assignor(s) hereby confirms the CORRECT SPELLING OF INVENTOR #10 NAME IS XIANGDONG ZHANG.

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
XIANGDONG ZHANG	10/20/2017

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:	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.

Email: us-docketing@qualcomm.com

Correspondent Name: QUALCOMM INCORPORATED

Address Line 1: 5775 MOREHOUSE DRIVE

Address Line 4: SAN DIEGO, CALIFORNIA 92121

ATTORNEY DOCKET NUMBER:	172824
NAME OF SUBMITTER:	JACQUELINE DUENAS
SIGNATURE:	/Jacqueline Duenas/
DATE SIGNED:	05/31/2019
Total Attachments: 5 source=172824_Assignment_044182 _ 0104#page1.tif source=172824_Assignment_044182 _ 0104#page2.tif source=172824_Assignment_044182 _ 0104#page3.tif source=172824_Assignment_044182 _ 0104#page4.tif source=172824_Assignment_044182 _ 0104#page5.tif	

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
<i>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.</i>	
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

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	

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

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;

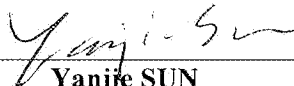
AND WE further do acknowledge and agree that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, all rights of priority under International Conventions, Treaties, 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;

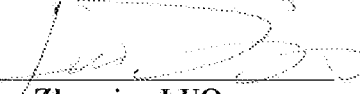
AND WE HEREBY covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, 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;

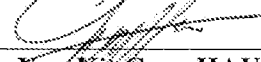
AND WE HEREBY covenant that WE will not execute any writing or do any act whatsoever conflicting with these presents.

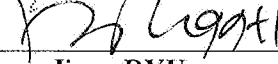
Done at Lexington, MA, on 10/20/17
LOCATION DATE

Yanjie SUN


Done at Sudbury, MA, on 10/19/17
LOCATION DATE


Jing-Hwa CHEN

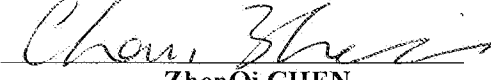
Done at Weyland, MA, on 10/19/17
LOCATION DATE

Zhenying LUO

Done at Barnstable, MA, on 10/19/17
LOCATION DATE

Yan Kit Gary HAU

Done at Boxborough, MA, on 10/19/17
LOCATION DATE

Jisun RYU

Done at Jamaica Plain, MA, on 10/19/17
LOCATION DATE

Ashwin DUGGAL

Done at Boxborough, MA, on 10/19/17
LOCATION DATE

Kihun CHANG

Done at Shirley, MA, on 10/19/17
LOCATION DATE

ZhenQi CHEN

Done at Dunstable, MA, on 10/20/17
LOCATION DATE

Xinwei WANG

Done at Boxborough, on 10/20/17
LOCATION DATE

Xiangdong ZHANG