504206454 01/31/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4253131

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
MARIO FRANCISCO VELEZ	01/11/2017
NIRANJAN SUNIL MUDAKATTE	01/11/2017
CHANGHAN HOBIE YUN	01/10/2017
DAEIK DANIEL KIM	12/29/2016
DAVID FRANCIS BERDY	01/11/2017
JONGHAE KIM	01/11/2017
YUNFEI MA	01/14/2017
CHENGJIE ZUO	01/11/2017

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:	15345312

CORRESPONDENCE DATA

Fax Number: (703)621-7155

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: 7036217140

Email: tmp@mg-ip.com

Correspondent Name: MUNCY, GEISSLER, OLDS & LOWE, P.C./QUALC

Address Line 1: 4000 LEGATO ROAD, SUITE 310

Address Line 4: FAIRFAX, VIRGINIA 22033

ATTORNEY DOCKET NUMBER:	QC153687
NAME OF SUBMITTER:	TAMI M. PROCOPIO
SIGNATURE:	/Tami M. Procopio/

PATENT 504206454 REEL: 041139 FRAME: 0352

DATE SIGNED:	01/31/2017	
Total Attachments: 9		
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ASSIGNMENT

WHEREAS, WE,

- 1. Mario Francisco VELEZ, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA and a resident of San Diego, CA;
- 2. **Niranjan Sunil MUDAKATTE**, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA and a resident of San Diego, CA;
- 3. Changhan Hobie YUN, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA and a resident of San Diego, CA;
- 4. **Dacik Daniel KIM**, a citizen of Korea, having a mailing address located at 5775 Morehouse Drive, San Diego, CA and a resident of Del Mar, CA;
- 5. David Francis BERDY, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA and a resident of San Diego, CA;
- 6. **Jonghae KIM**, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA and a resident of San Diego, CA;
- 7. **Yunfei MA**, a citizen of China, having a mailing address located at 536 Cambridge St. Apt 5, Cambridge, MA 02141 and a resident of Cambridge, MA;
- 8. Chengjie ZUO, a citizen of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA and a resident of San Diego, CA

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 SOLENOID INDUCTOR (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). 15/345,312 filed November 7, 2016, Qualcomm Reference No. 153687, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 62/252,567, filed November 8, 2015, Qualcomm Reference No. 153687P1, (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 Ref. No. 153687 Page 3 of 3

AND WE HEREBY cover	ant that WE	will not execute any writing or do any act
whatsoever conflicting with these pr	esents.	
Done at <u>DK60</u> , on <u>1</u> LOCATION	LILLIT DATE	Mario Francisoo MELEZ
Done at DIEGO, on 1		Niranjan Sanii MUDAKATTE
Done at Can Dieso CA, on		Changhan Hobie YUN
Done at, on	DATE	Daeik Daniel KIM
Done at <u>San O'ese CA</u> on <u>I</u>	11/12 DATE	David Francis BERDY
Done at Scm (71 e, 17, on 1/	U/ IN DATE	Jonghae KIM
Done at, on	DATE	Yunfei MA
Done at San Diego, CA 1 LOCATION		Chengjie ZUO

ASSIGNMENT

WHEREAS, WE,

- 1. Mario Francisco VELEZ, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA and a resident of San Diego, CA;
- 2. **Niranjan Sunil MUDAKATTE,** a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA and a resident of San Diego, CA;
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- 8. Chengjie ZUO, a citizen of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA and a resident of San Diego, CA

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 **SOLENOID INDUCTOR** (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). 15/345,312 filed November 7, 2016, Qualcomm Reference No. 153687, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 62/252,567, filed November 8, 2015, Qualcomm Reference No. 153687P1, (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;

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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	, i	in	
	LOCATION	DATE	Mario Francisco VELEZ
Done at	······································	on	
	LOCATION	DATE	Niranjan Sunil MUDAKATTE
Done at _	,,	DATE	
	LOCATION	DATE	Changhan Hobie YUN
Done at _	Som Drego.	on 12/29/206 DATE	Dacik Daniel KIM
	LOCATION	DATE	Daeik Daniel KIM
Done at	, (DATE	
	LOCATION	DATE	David Francis BERDY
Done at _		on	
	LOCATION	DATE	Jonghae KIM
Done at	· · · · · · · · · · · · · · · · · · ·	าก	
1 	LOCATION	DATE	Yunfei MA
Done at	, c	on	
	LOCATION		Chengjie ZUO

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PATENT QUALCOMM Ref. No. 153687 Page 3 of 3

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Done at		on	·····································
	LOCATION	DATE	Mario Francisco VELEZ
Done at	***************************************	on	
	LOCATION	DATE	Niranjan Sunil MUDAKATTE
Done at _	*	on	
	LOCATION	DATE	Changhan Hobie YUN
Done at	LOCATION	on	
	LOCATION	DATE	Daeik Daniel KIM
Done at	9	onDATE	
	LOCATION	DATE	David Francis BERDY
Done at _	LOCATION ,	on	
			Jonghae KIM
Done at (ambridge,	on 1/4/2017	Junge; Mu_
	LOCATION	DATE	Yunfei MA
Done at		on	N
	LOCATION	DATE	Chengije ZIJO

PATENT REEL: 041139 FRAME: 0362

RECORDED: 01/31/2017