02/14/2018 504778534

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4825263

SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	ASSIGNMENT		

CONVEYING PARTY DATA

Name	Execution Date
S M AKRAMUS SALEHIN	01/09/2018
RICARDO DE JESUS BERNAL CASTILLO	01/24/2018
MICHAEL ERICSON	01/24/2018
FERDINANDO OLIVIERI	01/10/2018
NILS GUNTHER PETERS	01/09/2018
DIPANJAN SEN	02/09/2018

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:	15836660		

CORRESPONDENCE DATA

Fax Number: (512)327-5575

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: 512-327-5515

Email: dwade@tlgiplaw.com **TOLER LAW GROUP Correspondent Name:** 8500 BLUFFSTONE COVE Address Line 1:

Address Line 2: SUITE A201

Address Line 4: AUSTIN, TEXAS 78759

ATTORNEY DOCKET NUMBER:	176080
NAME OF SUBMITTER:	DAVID WADE
SIGNATURE:	/David Wade/
DATE SIGNED:	02/14/2018

Total Attachments: 18 source=176080_ASG_2018-02-13_Signed_19449207_1#page1.tif source=176080 ASG 2018-02-13 Signed 19449207 1#page2.tif source=176080 ASG 2018-02-13 Signed 19449207 1#page3.tif source=176080_ASG_2018-02-13_Signed_19449207_1#page4.tif source=176080_ASG_2018-02-13_Signed_19449207_1#page5.tif source=176080 ASG 2018-02-13 Signed 19449207 1#page6.tif source=176080 ASG 2018-02-13 Signed 19449207 1#page7.tif source=176080_ASG_2018-02-13_Signed_19449207_1#page8.tif source=176080 ASG 2018-02-13 Signed 19449207 1#page9.tif source=176080 ASG 2018-02-13 Signed 19449207 1#page10.tif source=176080_ASG_2018-02-13_Signed_19449207_1#page11.tif source=176080 ASG 2018-02-13 Signed 19449207 1#page12.tif source=176080 ASG 2018-02-13 Signed 19449207 1#page13.tif source=176080 ASG 2018-02-13 Signed 19449207 1#page14.tif source=176080_ASG_2018-02-13_Signed_19449207_1#page15.tif source=176080_ASG_2018-02-13_Signed_19449207_1#page16.tif source=176080 ASG 2018-02-13 Signed 19449207 1#page17.tif source=176080 ASG 2018-02-13 Signed 19449207 1#page18.tif

WHEREAS, WE,

- 1. S M Akramus SALEHIN, a citizen of Australia, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 2. Ricardo De Jesus BERNAL CASTILLO, a citizen of Mexico, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 3. Michael ERICSON, a citizen of the United States of America, having a mailing address located at \$775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 4. Ferdinando OLIVIERI, a citizen of Italy, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 5. Nils Gunther PETERS, a citizen of Germany, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 6. Dipanjan SEN, 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, 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 AMBISONIC SIGNAL GENERATION FOR MICROPHONE ARRAYS (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). 15/836,660 filed December 8, 2017, Qualcomm Reference No. 176080, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 62/549,917, filed August 24, 2017, Qualcomm Reference No. 176080P1, (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such application

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;

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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 HERI ver conflicting w				not execute any writing or do any act
Done at	AV 435G QUALCOMM LOCATION	, on	1/9/2018 DATE		Sm Akramus SALEHIN
Done at	LOCATION	, on _	DATE		Ricardo De Jesus BERNAL CASTILLO
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* •					Michael ERICSON
Done at	LOCATION	, on _	DATE	,	Ferdinando OLIVIERI
Done at	LOCATION	, on	DATE		Nils Gunther PETERS
Done at	LOCATION	, on	DATE		Dinanian SEN

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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	S M Akramus SALEHIN
Done at <u>≤</u>	DIEGO LOCATION), on 1/24/2018 DATE	Ricardo De Jesus BERNAL CASTILLO
Done at _	LOCATION	_, on	Michael ERICSON
Done at _	LOCATION	on	Ferdinando OLIVIERI
Done at _	LOCATION	_, on DATE	Nils Gunther PETERS
Done at _	LOCATION	on	Dipanjan SEN

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	LOCATION	DATE	S M Akramus SALEHIN
Done at		, on	The state of the s
			Ricardo De Jesus BERNAL CASTILLO
Done at	San Diego	on <u>//24//8</u> DATE	Michael ERICSON
			, MICHAEL ENCOON
		, on	Ferdinando OLIVIERI
Done at	LOCATION	, on	Nils Gunther PETERS
Done at	LOCATION	, on	Dinanian SFN

3."

ASSIGNMENT

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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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whatsoever conflicting with these presents. Sec 16 About Se Done at ______, on ______

LOCATION DATE Ricardo De Jesus BERNAL CASTILLO Michael ERICSON Nils Gunther PETERS Dipanjan SEN

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Done at _	LOCATION '	, on	DATE ,	Michael ERICSON
			DATE	
				Nils Guntiser PETERS
Done at	LOCATION	_5 VM	DATE.	Dinanian SEN

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- 2. Ricardo De Jesus BERNAL CASTILLO, a citizen of Mexico, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 3. Michael ERICSON, 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, CA,
- 4. Ferdinando OLIVIERI, a citizen of Italy, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 5. Nils Gunther PETERS, a citizen of Germany, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 6. Dipanjan SEN, 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, 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 AMBISONIC SIGNAL GENERATION FOR MICROPHONE ARRAYS (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). 15/836,660 filed December 8, 2017, Qualcomm Reference No. 176080, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 62/549,917, filed August 24, 2017, Qualcomm Reference No. 176080P1, (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such application

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		, on		
	LOCATION		DATE	S M Akramus SALEHIN
Done at		on_		
	LOCATION		DATE	Ricardo De Jesus BERNAL CASTILLO
Done at _		on_		Michael ERICSON
			DATE	
			DATE	
Done at	LOCATION	on	2/9/18	Dipanjan SEN
	LOCATION		DATE	Dipanjan SEN

PATENT REEL: 044932 FRAME: 0037

RECORDED: 02/14/2018