503550078 11/02/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3596705

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------------|----------------|
| EVGENI PETROVICH GOUSEV | 10/14/2015 |
| ALOK GOVIL | 10/19/2015 |
| SOO YOUN KIM | 10/14/2015 |
| NELSON RASQUINHA | 10/22/2015 |
| VENKAT RANGAN | 10/16/2015 |

RECEIVING PARTY DATA

| Name: | QUALCOMM Incorporated | |
|--------------------|-----------------------|--|
| Street Address: | 5775 Morehouse Drive | |
| City: | San Diego | |
| State/Country: | CALIFORNIA | |
| Postal Code: 92121 | | |

PROPERTY NUMBERS Total: 2

| Property Type | Number |
|---------------------|----------|
| Application Number: | 14862319 |
| Application Number: | 62058007 |

CORRESPONDENCE DATA

Fax Number:

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: 650-326-2400

Email: mvera@kilpatricktownsend.com

Correspondent Name: KILPATRICK TOWNSEND & STOCKTON LLP

Address Line 1: TWO EMBARCARDERO CENTER

Address Line 2: EIGHT FLOOR

Address Line 4: SAN FRANCISCO, CALIFORNIA 94111

| ATTORNEY DOCKET NUMBER: | 147457 (0938219) |
|-------------------------|------------------|
| NAME OF SUBMITTER: | MARCOS VERA |
| SIGNATURE: | /Marcos Vera/ |
| DATE SIGNED: | 11/02/2015 |

PATENT 503550078 REEL: 036935 FRAME: 0845

Total Attachments: 7 source=147457_Assignment#page1.tif source=147457_Assignment#page2.tif source=147457_Assignment#page3.tif source=147457_Assignment#page4.tif source=147457_Assignment#page5.tif source=147457_Assignment#page6.tif source=147457_Assignment#page7.tif

ASSIGNMENT

WHEREAS, WE,

- 1. **Evgeni Petrovich Gousev,** a citizen of Russia, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of Saratoga, CA.
- 2. **Alok Govil**, a citizen of India, having a mailing address located at 322 Stocker Court, Fremont CA 94539 and a resident of Fremont, CA.
- 3. **Soo Youn Kim,** a citizen of Korea, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of San Diego, CA.
- 4. **Nelson Rasquinha**, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of San Diego, CA.
- 5. **Venkat Rangan,** 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 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 **FEATURE COMPUTATION IN A SENSOR ELEMENT ARRAY** (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. 14/862,319 filed September 23, 2015, Qualcomm Reference 147457, and all provisional applications relating thereto, together with U.S. Provisional Application No. 62/058,007 filed September 30, 2014, Qualcomm Reference No. 147083P1, and U.S. Provisional Application No. 62/058,009 filed

2014, Qualcomm Reference No. 147450P1 (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;

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

PATENT

QUALCOMM Ref. No. 147457 (0938219) 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 | Santa Clare | on Oct. 14, 2015 DATE | Evgeni Petrovich Gousev |
|---------|-------------|------------------------|-------------------------|
| | LOCATION | DATE | Evgeni Petrovich Gousev |
| Done at | | on | |
| | LOCATION | DATE | Alok Govil |
| Done at | | on | |
| | LOCATION | DATE | Soo Youn Kim |
| Done at | | on | |
| • | LOCATION | DATE | Nelson Rasquinha |
| Done at | | on. | |
| DONG at | LOCATION | on | Venkat Rangan |

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 | Evgeni Petrovich Gousev |
| Done at | Summell CA LOCATION | on <u>Ö(† 19,7201</u> 8 DATE | Alok Govil |
| Done at | LOCATION | on | Soo Youn Kim |
| Done at | LOCATION | _, on DATE | Nelson Rasquinha |
| Done at | LOCATION | , on | Venkat Rangan |

| whatsoever confli- | cting with these | e presents. | |
|--------------------|------------------|-------------|-------------------------|
| Done at | , on | TS A PPP | Evgeni Petrovich Gousev |
| LOCA | TION | DATE | Evgen i enovica Gousev |
| Done at | , on _ | | Alok Govil |
| LOCA | TION | DATE | Alok Govil |
| Done at AVOE | 2 ~C3.USA on | bywant | Soo Youn Kim |
| LOCA | TION | DATE | Soo Youn Kim |
| T | 21.22 | | |
| LOCA | TION | DATE | Nelson Rasquinha |
| | | | |
| Done at | , on | DATE | Venkat Rangan |

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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 | . 4 2-44- | DATE | Evgeni Petrovich Gousev |
| Done at | LOCATION | , on | | |
| | LOCATION | | DATE | Alok Govil |
| Done at _ | LOCATION | , on | | |
| | | | | |
| Done ats | ANDIE 60 | on (|) CT. 22, 20 | 15 legun |
| <u>ii.</u> | LOCATION | | DATE | Actson Rasquinha |
| Done at | | on | | |
| Done at | LOCATION | UII | DATE | Venkat Rangan |

Done at Str Diego, Cat., on 10/16/2015 Verlat Rungan

AND WE HEREBY covenant that WE will not execute any writing or do any act

PATENT REEL: 036935 FRAME: 0853

RECORDED: 11/02/2015