504504253 08/15/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4550957

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

CONVEYING PARTY DATA

| Name | Execution Date |
|----------------------|----------------|
| KAPIL GULATI | 07/27/2017 |
| GAURAV GUPTA | 07/27/2017 |
| SHAILESH PATIL | 07/26/2017 |
| DURGA PRASAD MALLADI | 08/10/2017 |
| SUDHIR KUMAR BAGHEL | 07/26/2017 |
| MARCO PAPALEO | 08/01/2017 |

RECEIVING PARTY DATA

| Name: | QUALCOMM INCORPORATED |
|-----------------|-----------------------|
| Street Address: | 5775 MOREHOUSE DRIVE |
| City: | SAN DIEGO |
| State/Country: | CALIFORNIA |
| Postal Code: | 92121-1714 |

PROPERTY NUMBERS Total: 3

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15644378 |
| Application Number: | 62359902 |
| Application Number: | 62374685 |

CORRESPONDENCE DATA

Fax Number: (202)857-6395

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: 213-629-7400

Email: patentdocket@arentfox.com

Correspondent Name: ARENT FOX, LLP AND QUALCOMM, INCORPORATE

Address Line 1: 1717 K STREET, NW

Address Line 4: WASHINGTON, D.C. 20006-5344

| ATTORNEY DOCKET NUMBER: | 030284.14820/ 164024B1 |
|-------------------------|------------------------|
| NAME OF SUBMITTER: | MARIA CHUA |
| SIGNATURE: | /MARIA CHUA/ |

PATENT 504504253 REEL: 043297 FRAME: 0824

| DATE SIGNED: | 08/15/2017 | | |
|---|--|--|--|
| Total Attachments: 12 | | | |
| source=164024B1_SignedAssignment# | page1.tif | | |
| source=164024B1_SignedAssignment# | page2.tif | | |
| source=164024B1_SignedAssignment# | page3.tif | | |
| source=164024B1_SignedAssignment# | page4.tif | | |
| source=164024B1_SignedAssignment# | source=164024B1_SignedAssignment#page5.tif | | |
| source=164024B1_SignedAssignment# | source=164024B1_SignedAssignment#page6.tif | | |
| source=164024B1_SignedAssignment#page7.tif | | | |
| source=164024B1_SignedAssignment#page8.tif | | | |
| source=164024B1_SignedAssignment#page9.tif | | | |
| source=164024B1_SignedAssignment#page10.tif | | | |
| source=164024B1_SignedAssignment#page11.tif | | | |
| source=164024B1_SignedAssignment#page12.tif | | | |

WHEREAS, WE,

- Kapil GULATI, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Dover, Delaware.
- Gaurav GUPTA, a citizen of India, having a mailing address located at 1179 W. 29th Street, Apt 1, Los Angeles CA 90007 and a resident of Los Angeles, California.
- Shallesh PATIL, a citizen of United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Raritan, New Jersey.
- Durga Prasad MALLADI, a citizen of United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of San Diego, California.
- Sudhir Kumar BAGHEL, a citizen of India, having a mailing address located at 5775
 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Hillsborough, New Jersey,
- 6. Marco PAPALEO, a citizen of Italy, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Nuremberg, Germany,

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 MULTI-TECHNOLOGY COEXISTENCE IN THE UNLICENSED INTELLIGENT TRANSPORTATION SERVICE SPECTRUM (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). 15/644,378 filed July 7, 2017. Qualcomm Reference No.

164024B1, which is a Continuation-in-part of US. Application No(s). 15/465,877 filed March 22, 2017, Qualcomm Reference No. 164024 and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 62/359,902, filed July 8, 2016, Qualcomm Reference No. 164024P1, and 62/374,685, filed August 12, 2016, Qualcomm Reference No. 164709P1, (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.

| Done af | Acewates, on Location | <u> </u> | Kapil GULATI |
|------------|--|-----------------|----------------------|
| | | | Kapil GULATI |
| | LOCATION | | Gaurav GUPTA |
| Done at \$ | NO <u>VICENATE</u> , on LOCATION | 7-26-17 DATE | Shailesh PATIL |
| | LOCATION . | | Durga Prasad MALLADI |
| Done at 🗍 | <u>r Agewarel</u> , on Location | 7-26-17 DATE | Sudhir Kumar BAGHEL |
| Done at | LOCATION , on | DATE | Marco PAPALEO |

WHEREAS, WE,

- 1. Kapil GULATI, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Dover, Delaware,
- Gaurav GUPTA, a citizen of India, having a mailing address located at 1179 W. 29th Street, Apt 1, Los Angeles CA 90007 and a resident of Los Angeles, California,
- Shailesh PATIL, a citizen of United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Raritan, New Jersey.
- Durga Prasad MALLADI, a citizen of United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of San Diego, California,
- Sudhir Kumar BAGHEL, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Hillsborough, New Jersey,
- 6. Marco PAPALEO, a citizen of Italy, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Nuremberg, Germany,

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 MULTI-TECHNOLOGY COEXISTENCE IN THE UNLICENSED INTELLIGENT TRANSPORTATION SERVICE SPECTRUM (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). 15/644,378 filed July 7, 2017, Qualcomm Reference No.

164024B1, which is a Continuation-in-part of US. Application No(s). 15/465,877 filed March 22, 2017, Qualcomm Reference No. 164024 and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 62/359,902, filed July 8, 2016. Qualcomm Reference No. 164024P1, and 62/374,685, filed August 12, 2016. Qualcomm Reference No. 164709P1. (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.

| Done at | , on | | <u></u> |
|---------------------------------------|-----------|----------|----------------------|
| LOCATI | ON | DATE | Kapii GULATI |
| Done at 108 And | 8788.on (| -a/24/14 | Gauray GUPTA |
| Done at <u>/// // /// /</u> LOCATI | ON | DATE | Gaurav GUPTA |
| Done at | , on | | |
| LOCATI | ON | DATE | Shailesh PATIL |
| Done at | ∝ on | | |
| LOCATI | (ON | DATE | Durga Prasad MALLADI |
| Phine at | "on | | |
| LOCATI | ION | DATE | Sudhir Kumar BAGHEL |
| Done at | , ne | | |
| LOCAT | ION | DATE | Marco PAPALEO |

WHEREAS, WE,

- 1. Kapil GULATI, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Dover, Delaware.
- Gaurav GUPTA, a citizen of India, having a mailing address located at 1179 W. 29th Street, Apt 1, Los Angeles CA 90007 and a resident of Los Angeles, California.
- Shailesh PATIL, a citizen of United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Raritan, New Jersey.
- Durga Prasad MALLADI, a citizen of United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of San Diego, California.
- 5. Sudhir Kumar BAGHEL, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Hillsborough, New Jersey,
- 6. Marco PAPALEO, a citizen of Italy, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Nuremberg, Germany,

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 MULTI-TECHNOLOGY COEXISTENCE IN THE UNLICENSED INTELLIGENT TRANSPORTATION SERVICE SPECTRUM (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). 15/644.378 filed July 7, 2017, Qualcomm Reference No.

164024B1, which is a Continuation-in-part of US. Application No(s). 15/465,877 filed March 22, 2017, Qualcomm Reference No. 164024 and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 62/359,902, filed July 8, 2016, Qualcomm Reference No. 164024P1, and 62/374,685, filed August 12, 2016, Qualcomm Reference No. 164709P1, (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.

| Done at | | , On | |
|---------|-----------------------|------------|----------------------|
| | LOCATION | DATE | Kapil GULATI |
| Done at | LOCATION | , onDATE | Gauray GUPTA |
| Done at | LOCATION | , onDATE | Shailesh PATIL |
| Done at | San Diego Location | on 8/10/17 | Durga Prasad MALLADI |
| Done at | LOCATION | on | Sudhir Kumar BAGHEL |
| Done at | LOCATION | , on | Marco PAPALEO |

WHEREAS, WE,

- Kapil GULATI, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Dover, Delaware,
- Gaurav GUPTA, a citizen of India, having a mailing address located at 1179 W. 29th Street, Apt 1, Los Angeles CA 90007 and a resident of Los Angeles, California,
- Shallesh PATIL, a citizen of United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Raritan, New Jersey,
- Durga Prasad MALLADI, a citizen of United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of San Diego, California,
- 5. Sudhir Kumar BAGHEL, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Hillsborough, New Jersey,
- Marco PAPALEO, a citizen of Italy, having a mailing address located at 5775
 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Nuremberg, Germany,

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 MULTI-TECHNOLOGY COEXISTENCE IN THE UNLICENSED INTELLIGENT TRANSPORTATION SERVICE SPECTRUM (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). 15/644.378 filed July 7, 2017, Qualcomm Reference No.

164024B1, which is a Continuation-in-part of US. Application No(s). 15/465,877 filed March 22, 2017, Qualcomm Reference No. 164024 and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 62/359,902, filed July 8, 2016. Qualcomm Reference No. 164024P1, and 62/374,685, filed August 12, 2016. Qualcomm Reference No. 164709P1. (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. 164024B1 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 | Done at | on | |
|--|------------------------|----------------------------|----------------------|
| Done at | LOCATION | DATE | Kspil GULATI |
| Done at | Done at | | |
| Done at | LOCATION | DATE | Gauray Guri A |
| Done at | Done at | , on | |
| Done at, on | LOCATION | DATE | Shailesh PATIL |
| Done at, on | Done at | on | |
| | LOCATION | DATE | Durga Prasad MALLADI |
| | Done of | on | |
| | LOCATION | DATE | Sudhir Kumar BAGHEL |
| | and the second second | 5.41 . 1. | M. 4. |
| Done at MARCHAEL , on CA/CI/CO Marco PAPALEO | Done at MARCH LOCATION | on <u>UN/C1/CG</u> DATE | Marco PAPALEO |

PATENT REEL: 043297 FRAME: 0837

RECORDED: 08/15/2017