

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT														
NATURE OF CONVEYANCE:	ASSIGNMENT														
CONVEYING PARTY DATA															
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>PETER GAAL</td> <td>10/16/2013</td> </tr> <tr> <td>MARIAM MOTAMED</td> <td>10/25/2013</td> </tr> <tr> <td>WANSHI CHEN</td> <td>10/21/2013</td> </tr> <tr> <td>ALEXEI Y. GOROKHOV</td> <td>10/07/2013</td> </tr> <tr> <td>DOMINIQUE F. BRESSANELLI</td> <td>10/09/2013</td> </tr> <tr> <td>LEVENT AYDIN</td> <td>10/25/2013</td> </tr> </tbody> </table>		Name	Execution Date	PETER GAAL	10/16/2013	MARIAM MOTAMED	10/25/2013	WANSHI CHEN	10/21/2013	ALEXEI Y. GOROKHOV	10/07/2013	DOMINIQUE F. BRESSANELLI	10/09/2013	LEVENT AYDIN	10/25/2013
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RECEIVING PARTY DATA															
<table border="1"> <tr> <td>Name:</td> <td>QUALCOMM INCORPORATED</td> </tr> <tr> <td>Street Address:</td> <td>5775 MOREHOUSE DRIVE</td> </tr> <tr> <td>City:</td> <td>SAN DIEGO</td> </tr> <tr> <td>State/Country:</td> <td>CALIFORNIA</td> </tr> <tr> <td>Postal Code:</td> <td>92121-1714</td> </tr> </table>		Name:	QUALCOMM INCORPORATED	Street Address:	5775 MOREHOUSE DRIVE	City:	SAN DIEGO	State/Country:	CALIFORNIA	Postal Code:	92121-1714				
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CORRESPONDENCE DATA															
Fax Number:	(202)857-6395														
Phone:	213-629-7400														
Email:	dcipdocket@arentfox.com														
<i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i>															
Correspondent Name:	ARENT FOX, LLP														
Address Line 1:	1717 K STREET, NW														
Address Line 4:	WASHINGTON, DISTRICT OF COLUMBIA 20036-5342														

ATTORNEY DOCKET NUMBER:	030284.06932/131086U2
NAME OF SUBMITTER:	RACHELE WITTWER
Signature:	/rachele wittwer/
Date:	11/11/2013
<p>Total Attachments: 18</p> <p>source=131086U2 Signed Assignment#page1.tif source=131086U2 Signed Assignment#page2.tif source=131086U2 Signed Assignment#page3.tif source=131086U2 Signed Assignment#page4.tif source=131086U2 Signed Assignment#page5.tif source=131086U2 Signed Assignment#page6.tif source=131086U2 Signed Assignment#page7.tif source=131086U2 Signed Assignment#page8.tif source=131086U2 Signed Assignment#page9.tif source=131086U2 Signed Assignment#page10.tif source=131086U2 Signed Assignment#page11.tif source=131086U2 Signed Assignment#page12.tif source=131086U2 Signed Assignment#page13.tif source=131086U2 Signed Assignment#page14.tif source=131086U2 Signed Assignment#page15.tif source=131086U2 Signed Assignment#page16.tif source=131086U2 Signed Assignment#page17.tif source=131086U2 Signed Assignment#page18.tif</p>	

ASSIGNMENT

WHEREAS, WE,

1. **Peter GAAL**, 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, California,
2. **Mariam MOTAMED**, 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 Redwood City, California,
3. **Wanshi CHEN**, a citizen of The People's Republic of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of San Diego, California,
4. **Alexei Y. GOROKHOV**, 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, California,
5. **Dominique F. BRESSANELLI**, a citizen of France, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Hessen, Germany,
6. **Levent AYDIN**, 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, California,

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 **ENB PDCCH IMPLEMENTATION TO AVOID AMBIGUOUS DCI INFORMATION** (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). 14/023,438 filed September 10, 2013, Qualcomm Reference No. 131086U2, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 61/748,731, filed January 3, 2013, Qualcomm Reference No. 131086P1, and 61/753,900, filed January 17, 2013, Qualcomm Reference No. 131086P2, (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;

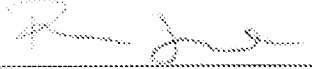
AND WE DO HEREBY authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications or registrations, to issue all patents for said INVENTIONS to said ASSIGNEE, its successors, 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 San Diego, on 10/16/2013 
LOCATION DATE Peter GAAL

Done at _____, on _____
LOCATION DATE Mariam MOTAMED

Done at _____, on _____
LOCATION DATE Wanshi CHEN

Done at _____, on _____
LOCATION DATE Alexei Y. GOROKHOV

Done at _____, on _____
LOCATION DATE Dominique F. BRESSANELLI

Done at _____, on _____
LOCATION DATE Levent AYDIN

ASSIGNMENT

WHEREAS, WE,

1. **Peter GAAL**, 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, California,
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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 **ENB PDCCH IMPLEMENTATION TO AVOID AMBIGUOUS DCI INFORMATION** (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). 14/023,438 filed September 10, 2013, Qualcomm Reference No. 131086U2, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 61/748,731, filed January 3, 2013, Qualcomm Reference No. 131086P1, and 61/753,900, filed January 17, 2013, Qualcomm Reference No. 131086P2, (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;

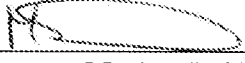
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AND WE HEREBY covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful 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 HEREBY covenant that WE will not execute any writing or do any act whatsoever conflicting with these presents.

Done at _____, on _____
LOCATION DATE Peter GAAL

Done at Sankh Clara, on 10/25/2013
LOCATION DATE 
Mariam MOTAMED

Done at _____, on _____
LOCATION DATE Wanshi CHEN

Done at _____, on _____
LOCATION DATE Alexei Y. GOROKHOV

Done at _____, on _____
LOCATION DATE Dominique F. BRESSANELLI

Done at _____, on _____
LOCATION DATE Levent AYDIN

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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.

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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). 14/023,438 filed September 10, 2013, Qualcomm Reference No. 131086U2, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 61/748,731, filed January 3, 2013, Qualcomm Reference No. 131086P1, and 61/753,900, filed January 17, 2013, Qualcomm Reference No. 131086P2, (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;

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Done at _____, on _____
LOCATION DATE Peter GAAL

Done at _____, on _____
LOCATION DATE Mariam MOTAMED

Done at San Diego, on 10/21/2013
LOCATION DATE Wanshi CHEN

Done at _____, on _____
LOCATION DATE Alexei Y. GOROKHOV

Done at _____, on _____
LOCATION DATE Dominique F. BRESSANELLI

Done at _____, on _____
LOCATION DATE Levent AYDIN

ASSIGNMENT

WHEREAS, WE,

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Done at _____, on _____
LOCATION DATE **Peter GAAL**

Done at _____, on _____
LOCATION DATE **Mariam MOTAMED**

Done at _____, on _____
LOCATION DATE **Wanshi CHEN**

Done at San Diego, on 10/07/2013
LOCATION DATE  **Alexei Y. GOROKHOV**

Done at _____, on _____
LOCATION DATE **Dominique F. BRESSANELLI**

Done at _____, on _____
LOCATION DATE **Levent AYDIN**

ASSIGNMENT

WHEREAS, WE,

1. **Peter GAAL**, 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, California,
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5. **Dominique F. BRESSANELLI**, a citizen of France, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Hessen, Germany,
6. **Levent AYDIN**, 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, California,

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 **ENB PDCCH IMPLEMENTATION TO AVOID AMBIGUOUS DCI INFORMATION** (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). 14/023,438 filed September 10, 2013, Qualcomm Reference No. 131086U2, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 61/748,731, filed January 3, 2013, Qualcomm Reference No. 131086P1, and 61/753,900, filed January 17, 2013, Qualcomm Reference No. 131086P2, (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 Peter GAAL

Done at _____, on _____
LOCATION DATE Mariam MOTAMED

Done at _____, on _____
LOCATION DATE Wanshi CHEN

Done at _____, on _____
LOCATION DATE Alexei Y. GOROKHOV

Done at ESCHBOREN, on 10-09-2013
LOCATION DATE 
Dominique F. BRESSANELLI

Done at _____, on _____
LOCATION DATE Levent AYDIN

ASSIGNMENT

WHEREAS, WE,

1. **Peter GAAL**, 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, California,
2. **Mariam MOTAMED**, 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 Redwood City, California,
3. **Wanshi CHEN**, a citizen of The People's Republic of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of San Diego, California,
4. **Alexei Y. GOROKHOV**, 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, California,
5. **Dominique F. BRESSANELLI**, a citizen of France, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Hessen, Germany,
6. **Levent AYDIN**, 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, California,

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 **ENB PDCCH IMPLEMENTATION TO AVOID AMBIGUOUS DCI INFORMATION** (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). 14/023,438 filed September 10, 2013, Qualcomm Reference No. 131086U2, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 61/748,731, filed January 3, 2013, Qualcomm Reference No. 131086P1, and 61/753,900, filed January 17, 2013, Qualcomm Reference No. 131086P2, (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.

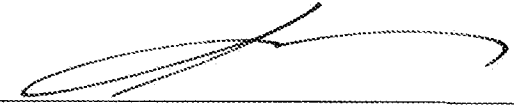
Done at _____, on _____
LOCATION DATE Peter GAAL

Done at _____, on _____
LOCATION DATE Mariam MOTAMED

Done at _____, on _____
LOCATION DATE Wanshi CHEN

Done at _____, on _____
LOCATION DATE Alexei Y. GOROKHOV

Done at _____, on _____
LOCATION DATE Dominique F. BRESSANELLI

Done at SAN DIEGO, CA, on 10/25/13
LOCATION DATE 
Levent AYDIN