

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT												
NATURE OF CONVEYANCE:	Corrective Assignment to correct the Assignee previously recorded on Reel 029679 Frame 0873. Assignor(s) hereby confirms the correct Assignee is QUALCOMM Incorporated.												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>JOHN F. CHAPPEL</td> <td>01/21/2013</td> </tr> <tr> <td>EHAB TAHIR</td> <td>01/21/2013</td> </tr> <tr> <td>RICHARD D. ROZE</td> <td>01/21/2013</td> </tr> <tr> <td>BRIAN J LANGLAIS</td> <td>01/22/2013</td> </tr> <tr> <td>JOUBIN KARIMI</td> <td>01/22/2013</td> </tr> </tbody> </table>		Name	Execution Date	JOHN F. CHAPPEL	01/21/2013	EHAB TAHIR	01/21/2013	RICHARD D. ROZE	01/21/2013	BRIAN J LANGLAIS	01/22/2013	JOUBIN KARIMI	01/22/2013
Name	Execution Date												
JOHN F. CHAPPEL	01/21/2013												
EHAB TAHIR	01/21/2013												
RICHARD D. ROZE	01/21/2013												
BRIAN J LANGLAIS	01/22/2013												
JOUBIN KARIMI	01/22/2013												
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</td> </tr> </table>		Name:	QUALCOMM Incorporated	Street Address:	5775 Morehouse Drive	City:	San Diego	State/Country:	CALIFORNIA	Postal Code:	92121		
Name:	QUALCOMM Incorporated												
Street Address:	5775 Morehouse Drive												
City:	San Diego												
State/Country:	CALIFORNIA												
Postal Code:	92121												
PROPERTY NUMBERS Total: 1													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13735966</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13735966								
Property Type	Number												
Application Number:	13735966												
CORRESPONDENCE DATA													
<p>Fax Number: 2817544914 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 281-758-0025 Email: jclark@delizogilliam.com Correspondent Name: Andrew DeLizio Address Line 1: 15201 Mason Road Address Line 2: Suite 1000-312 Address Line 4: Cypress, TEXAS 77433</p>													
ATTORNEY DOCKET NUMBER:	122491												

OP \$40.00 13735966

NAME OF SUBMITTER:

Jennifer Clark

Total Attachments: 16

source=122491_Coversheet#page1.tif

source=122491_Assignment_ToFile#page1.tif

source=122491_Assignment_ToFile#page2.tif

source=122491_Assignment_ToFile#page3.tif

source=122491_Assignment_ToFile#page4.tif

source=122491_Assignment_ToFile#page5.tif

source=122491_Assignment_ToFile#page6.tif

source=122491_Assignment_ToFile#page7.tif

source=122491_Assignment_ToFile#page8.tif

source=122491_Assignment_ToFile#page9.tif

source=122491_Assignment_ToFile#page10.tif

source=122491_Assignment_ToFile#page11.tif

source=122491_Assignment_ToFile#page12.tif

source=122491_Assignment_ToFile#page13.tif

source=122491_Assignment_ToFile#page14.tif

source=122491_Assignment_ToFile#page15.tif

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

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>John F. Chappel</td> <td>01/21/2013</td> </tr> <tr> <td>Ehab Tahir</td> <td>01/21/2013</td> </tr> <tr> <td>Richard D. Roze</td> <td>01/21/2013</td> </tr> <tr> <td>Brian J. Langlais</td> <td>01/22/2013</td> </tr> <tr> <td>Joubin Karimi</td> <td>01/22/2013</td> </tr> </tbody> </table>		Name	Execution Date	John F. Chappel	01/21/2013	Ehab Tahir	01/21/2013	Richard D. Roze	01/21/2013	Brian J. Langlais	01/22/2013	Joubin Karimi	01/22/2013
Name	Execution Date												
John F. Chappel	01/21/2013												
Ehab Tahir	01/21/2013												
Richard D. Roze	01/21/2013												
Brian J. Langlais	01/22/2013												
Joubin Karimi	01/22/2013												
RECEIVING PARTY DATA													
<table border="1"> <tr> <td>Name:</td> <td>Qualcomm Atheros, Inc</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</td> </tr> </table>		Name:	Qualcomm Atheros, Inc	Street Address:	5775 Morehouse Drive	City:	San Diego	State/Country:	CALIFORNIA	Postal Code:	92121		
Name:	Qualcomm Atheros, Inc												
Street Address:	5775 Morehouse Drive												
City:	San Diego												
State/Country:	CALIFORNIA												
Postal Code:	92121												
PROPERTY NUMBERS Total: 1													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13735966</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13735966								
Property Type	Number												
Application Number:	13735966												
CORRESPONDENCE DATA													
Fax Number:	2817544914												
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
Phone:	281-758-0025												
Email:	jblackwell@system.foundationip.com												
Correspondent Name:	Andrew DeLizio												
Address Line 1:	15201 Mason Road												
Address Line 2:	Suite 1000-312												
Address Line 4:	Cypress, TEXAS 77433												
ATTORNEY DOCKET NUMBER:	122491												
NAME OF SUBMITTER:	Jackie Blackwell												

OP \$40.00 13735966

PATENT

REEL: 029751 FRAME: 0708

ASSIGNMENT

WHEREAS, WE,

1. **John Fraser CHAPPEL**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
2. **Ehab TAHIR**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
3. **Richard David ROZE**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
4. **Brian James LANGLAIS**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
5. **Joubin KARIMI**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,

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 **DEVICE TRIGGERED WAKE UP OF POWERLINE COMMUNICATION DEVICES** (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). 13/735,966 filed January 7, 2013, Qualcomm Reference No. 122491, (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 represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at TORONTO, on JAN 21, 2013
LOCATION DATE



John Fraser CHAPPEL

ASSIGNMENT

WHEREAS, WE,

1. **John Fraser CHAPPEL**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
2. **Ehab TAHIR**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
3. **Richard David ROZE**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
4. **Brian James LANGLAIS**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
5. **Joubin KARIMI**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,

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 **DEVICE TRIGGERED WAKE UP OF POWERLINE COMMUNICATION DEVICES** (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). **13/735,966** filed **January 7, 2013**, Qualcomm Reference No. **122491**, (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;

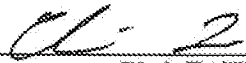
AND WE DO HEREBY sell, assign, transfer, and convey to said ASSIGNEE, its successors, its legal representatives, and its assigns all claims for damages and all remedies arising out of or relating to any violation(s) of any of the rights assigned hereby that have or may have accrued prior to the date 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 represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at _____, on _____
LOCATION DATE

John Fraser CHAPPEL

Done at Toronto, on Jan 21 2013 
LOCATION DATE Ehab TAHIR

Done at _____, on _____
LOCATION DATE Richard David ROZE

Done at _____, on _____
LOCATION DATE Brian James LANGLAIS

Done at _____, on _____
LOCATION DATE Joubin KARIMI

ASSIGNMENT

WHEREAS, WE,

1. **John Fraser CHAPPEL**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
2. **Ehab TAHIR**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
3. **Richard David ROZE**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
4. **Brian James LANGLAIS**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
5. **Joubin KARIMI**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,

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 **DEVICE TRIGGERED WAKE UP OF POWERLINE COMMUNICATION DEVICES** (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). **13/735,966** filed **January 7, 2013**, Qualcomm Reference No. **122491**, (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 represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at _____, on _____
 LOCATION DATE **John Fraser CHAPPEL**

Done at _____, on _____
LOCATION DATE

Ehab TAHIR

Done at TORONTO, on 21 January 2013
LOCATION DATE

Richard David ROZE
Richard David ROZE

Done at _____, on _____
LOCATION DATE

Brian James LANGLAIS

Done at _____, on _____
LOCATION DATE

Joubin KARIMI

ASSIGNMENT

WHEREAS, WE,

1. **John Fraser CHAPPEL**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
2. **Ehab TAHIR**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
3. **Richard David ROZE**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
4. **Brian James LANGLAIS**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
5. **Joubin KARIMI**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,

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 **DEVICE TRIGGERED WAKE UP OF POWERLINE COMMUNICATION DEVICES** (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). **13/735,966** filed **January 7, 2013**, Qualcomm Reference No. **122491**, (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 represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at _____, on _____
LOCATION DATE John Fraser CHAPPEL

Done at _____, on _____
LOCATION DATE Ehab TAHIR

Done at _____, on _____
LOCATION DATE Richard David ROZE

Done at Alameda Cal., on July 23/2013
LOCATION DATE *Brian James Langlais*
Brian James LANGLAIS

Done at _____, on _____
LOCATION DATE Joubin KARIMI

ASSIGNMENT

WHEREAS, WE,

1. **John Fraser CHAPPEL**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
2. **Ehab TAHIR**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
3. **Richard David ROZE**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
4. **Brian James LANGLAIS**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,
5. **Joubin KARIMI**, a citizen of Canada, having a mailing address located at 5775 Morehouse Drive, San Diego, California, 92121 and a resident of Ontario, Canada,

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 **DEVICE TRIGGERED WAKE UP OF POWERLINE COMMUNICATION DEVICES** (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). **13/735,966** filed **January 7, 2013**, Qualcomm Reference No. **122491**, (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;

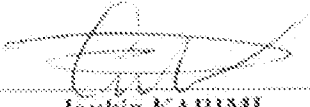
AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at _____, on _____
 LOCATION DATE John Fraser CHAPPEL

Done at _____, on _____
LOCATION DATE Ehab TAHIR

Done at _____, on _____
LOCATION DATE Richard David ROZE

Done at _____, on _____
LOCATION DATE Brian James LANGLAIS

Done at Ottawa, on Jan 22, 2013
LOCATION DATE 
Joubin KARIMI