

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT2676731

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>ANSSI KALEVA HAVERINEN</td> <td>08/02/2013</td> </tr> <tr> <td>TODD REYNOLDS</td> <td>09/24/2013</td> </tr> <tr> <td>ANGELICA WONG</td> <td>12/18/2013</td> </tr> <tr> <td>ROGER BROCKENBROUGH</td> <td>12/18/2013</td> </tr> <tr> <td>SANG-MIN LEE</td> <td>12/18/2013</td> </tr> </tbody> </table>		Name	Execution Date	ANSSI KALEVA HAVERINEN	08/02/2013	TODD REYNOLDS	09/24/2013	ANGELICA WONG	12/18/2013	ROGER BROCKENBROUGH	12/18/2013	SANG-MIN LEE	12/18/2013
Name	Execution Date												
ANSSI KALEVA HAVERINEN	08/02/2013												
TODD REYNOLDS	09/24/2013												
ANGELICA WONG	12/18/2013												
ROGER BROCKENBROUGH	12/18/2013												
SANG-MIN LEE	12/18/2013												
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>Internal Address:</td> <td>Patent Department/Central Administration</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	Internal Address:	Patent Department/Central Administration	City:	San Diego	State/Country:	CALIFORNIA	Postal Code:	92121
Name:	QUALCOMM Incorporated												
Street Address:	5775 Morehouse Drive												
Internal Address:	Patent Department/Central Administration												
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>13920670</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13920670								
Property Type	Number												
Application Number:	13920670												
CORRESPONDENCE DATA													
Fax Number:	(858)658-2502												
Phone:	858-845-4265												
Email:	us-docketing@qualcomm.com												
<i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i>													
Correspondent Name:	QUALCOMM INCORPORATED												
Address Line 1:	5775 MOREHOUSE DR.												
Address Line 4:	SAN DIEGO, CALIFORNIA 92121												
ATTORNEY DOCKET NUMBER:	132099												
NAME OF SUBMITTER:	GINA GOLIA												

PATENT

Signature:	/Gina Golia/
Date:	01/10/2014
Total Attachments: 9 source=132099_2014-01-10_ASST#page1.tif source=132099_2014-01-10_ASST#page2.tif source=132099_2014-01-10_ASST#page3.tif source=132099_2014-01-10_ASST#page4.tif source=132099_2014-01-10_ASST#page5.tif source=132099_2014-01-10_ASST#page6.tif source=132099_2014-01-10_ASST#page7.tif source=132099_2014-01-10_ASST#page8.tif source=132099_2014-01-10_ASST#page9.tif	

ASSIGNMENT

WHEREAS, WE,

1. **Anssi Kaleva Haverinen**, a citizen of **the United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **San Diego, California**;
2. **Todd Reynolds**, a citizen of **the United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Santee, California**;
3. **Angelica Wong**, a citizen of **the United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Palo Alto, California**;
4. **Roger Brockenbrough**, a citizen of **the United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Los Gatos, California**;
5. **Sang-Min Lee**, a citizen of **Korea**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Palo Alto, 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 **METHODS AND APPARATUS FOR IMPROVING REMOTE NFC DEVICE DETECTION USING A LOW POWER OSCILLATOR CIRCUIT** (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). **13/920,670** filed **June 18, 2013**, Qualcomm Reference No. **132099**, and all provisional applications relating thereto, 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, CA, on 8/2/2013
 LOCATION DATE


 Anssi Kaleva Haverinen

Done at _____, on _____
 LOCATION DATE

 Todd Reynolds

Done at _____, on _____
 LOCATION DATE

 Angelica Wong

Done at _____, on _____
 LOCATION DATE

 Roger Brockenbrough

Done at _____, on _____
 LOCATION DATE

 Sang-Min Lee

ASSIGNMENT

WHEREAS, WE,

1. **Anssi Kaleva Haverinen**, a citizen of **the United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **San Diego, California**;
2. **Todd Reynolds**, a citizen of **the United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Santee, California**;
3. **Angelica Wong**, a citizen of **the United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Palo Alto, California**;
4. **Roger Brockenbrough**, a citizen of **the United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Los Gatos, California**;
5. **Sang-Min Lee**, a citizen of **Korea**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Palo Alto, 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 **METHODS AND APPARATUS FOR IMPROVING REMOTE NFC DEVICE DETECTION USING A LOW POWER OSCILLATOR CIRCUIT** (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). **13/920,670** filed **June 18, 2013**, Qualcomm Reference No. **132099**, and all provisional applications relating thereto, 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;

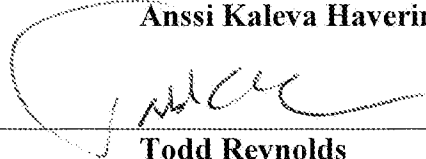
AND WE HEREBY covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, 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 Qualcomm, Inc., on 9/24/2013
LOCATION DATE

Anssi Kaleva Haverinen

Done at Qualcomm, Inc., on 9/24/2013
LOCATION DATE


Todd Reynolds

Done at _____, on _____
LOCATION DATE

Angelica Wong

Done at _____, on _____
LOCATION DATE

Roger Brockenbrough

Done at _____, on _____
LOCATION DATE

Sang-Min Lee

ASSIGNMENT

WHEREAS, WE,

1. **Anssi Kaleva Haverinen**, a citizen of **the United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **San Diego, California**;
2. **Todd Reynolds**, a citizen of **the United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Santee, California**;
3. **Angelica Wong**, a citizen of **the United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Palo Alto, California**;
4. **Roger Brockenbrough**, a citizen of **the United States of America**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Los Gatos, California**;
5. **Sang-Min Lee**, a citizen of **Korea**, having a mailing address of 5775 Morehouse Drive, San Diego, California, 92121, US; and a resident of **Palo Alto, 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 **METHODS AND APPARATUS FOR IMPROVING REMOTE NFC DEVICE DETECTION USING A LOW POWER OSCILLATOR CIRCUIT** (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). **13/920,670** filed **June 18, 2013**, Qualcomm Reference No. **132099**, and all provisional applications relating thereto, 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

Anssi Kaleva Haverinen

Done at _____, on _____
LOCATION DATE

Todd Reynolds

Done at San Jose, CA, on 12/18/13
LOCATION DATE

Angelica Wong

Done at San Jose, CA, on 12/18/13
LOCATION DATE

Roger Brockenbrough

Done at San Jose, CA, on 12/18/2013
LOCATION DATE

Sang-Min Lee