

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT2725577

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>SEID HADI RASOULI</td><td>12/06/2013</td></tr><tr><td>MICHAEL JOSEPH BRUNOLLI</td><td>01/16/2014</td></tr><tr><td>CHRISTINE SUNG-AN HAU-RIEGE</td><td>01/17/2014</td></tr><tr><td>MICKAEL MALABRY</td><td>12/06/2013</td></tr><tr><td>SUCHETA KUMAR HARISH</td><td>12/06/2013</td></tr><tr><td>PRATHIBA BALASUBRAMANIAN</td><td>01/31/2014</td></tr><tr><td>KAMESH MEDISETTI</td><td>01/31/2014</td></tr><tr><td>NIKOLAY BOMSHTIN</td><td>12/06/2013</td></tr><tr><td>ANIMESH DATTA</td><td>12/06/2013</td></tr><tr><td>OHSANG KWON</td><td>12/09/2013</td></tr></tbody></table>		Name	Execution Date	SEID HADI RASOULI	12/06/2013	MICHAEL JOSEPH BRUNOLLI	01/16/2014	CHRISTINE SUNG-AN HAU-RIEGE	01/17/2014	MICKAEL MALABRY	12/06/2013	SUCHETA KUMAR HARISH	12/06/2013	PRATHIBA BALASUBRAMANIAN	01/31/2014	KAMESH MEDISETTI	01/31/2014	NIKOLAY BOMSHTIN	12/06/2013	ANIMESH DATTA	12/06/2013	OHSANG KWON	12/09/2013
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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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PROPERTY NUMBERS Total: 1																							
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Application Number:	13975185																						
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:	030284.06441/132038
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NAME OF SUBMITTER:	RACHELE WITTWER
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Signature:	/Rachele Wittwer/
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Date:	02/12/2014
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Total Attachments: 6

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ASSIGNMENT

WHEREAS, WE,

1. **Seid Hadi RASOULI**, a citizen of Iran, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of San Diego, California,
2. **Michael Joseph BRUNOLLI**, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of Escondido, California,
3. **Christine Sung-An HAU-RIEGE**, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of Fremont, California,
4. **Mickael MALABRY**, a citizen of France, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of San Diego, California,
5. **Sucheta Kumar HARISH**, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of San Diego, California,
6. **Prathiba BALASUBRAMANIAN**, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of Bangalore, India,
7. **Kamesh MEDISETTI**, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of Bangalore, India,
8. **Nikolay BOMSHTEIN**, a citizen of Israel, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of San Diego, California,
9. **Animesh DATTA**, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 and a resident of San Diego, California,
10. **Ohsang KWON**, a citizen of South Korea, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121 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 **LAYOUT CONSTRUCTION FOR ADDRESSING ELECTROMIGRATION** (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). 13/975,185 filed August 23, 2013, Qualcomm Reference No. 132038, and all provisional applications relating thereto, (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 12/06/13
LOCATION DATE

Seid Hadi RASOULI

Done at _____, on _____
LOCATION DATE
Michael Joseph BRUNOLLI

Done at _____, on _____
LOCATION DATE
Christine Sung-An HAU-RIEGE

Done at San Diego, on 12/6/2013
LOCATION DATE

Mickael MALABRY

Done at SAN DIEGO, on 12/06/2013
LOCATION DATE

Sucheta Kumar HARISH

Done at _____, on _____
LOCATION DATE
Prathiba BALASUBRAMANIAN

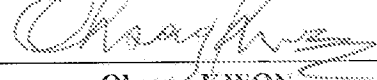
Done at _____, on _____
LOCATION DATE
Kamesh MEDISETTI

Done at San Diego, on 12/06/2013
LOCATION DATE

Nikolay BOMSHEIN

Done at San Diego, on 12/06/13
LOCATION DATE

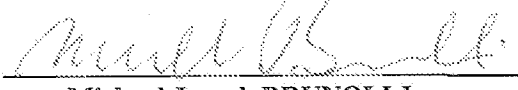
Animesh DATTA

Done at San Diego, on 12/09/13
LOCATION DATE

Ohsang KWON

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
Seid Hadi RASOULI

Done at San Diego, on 1/16/14
LOCATION DATE

Michael Joseph BRUNOLLI

Done at _____, on _____
LOCATION DATE
Christine Sung-An HAU-RIEGE

Done at _____, on _____
LOCATION DATE
Mickael MALABRY

Done at _____, on _____
LOCATION DATE
Sucheta Kumar HARISH

Done at _____, on _____
LOCATION DATE
Prathiba BALASUBRAMANIAN

Done at _____, on _____
LOCATION DATE
Kamesh MEDISETTI

Done at _____, on _____
LOCATION DATE
Nikolay BOMSHTAIN

Done at _____, on _____
LOCATION DATE
Animesh DATTA

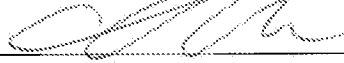
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LOCATION DATE
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Done at _____, on _____
LOCATION DATE Seid Hadi RASOULI

Done at _____, on _____
LOCATION DATE Michael Joseph BRUNOLLI

Done at Santa Clara, on 1/17/14
LOCATION DATE 
Christine Sung-An HAU-RIEGE

Done at _____, on _____
LOCATION DATE Mickael MALABRY

Done at _____, on _____
LOCATION DATE Sucheta Kumar HARISH

Done at _____, on _____
LOCATION DATE Prathiba BALASUBRAMANIAN

Done at _____, on _____
LOCATION DATE Kamesh MEDISETTI

Done at _____, on _____
LOCATION DATE Nikolay BOMSHEIN

Done at _____, on _____
LOCATION DATE Animesh DATTA

Done at _____, on _____
LOCATION DATE Ohsang KWON

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Done at _____, on _____
LOCATION DATE Seid Hadi RASOULI

Done at _____, on _____
LOCATION DATE Michael Joseph BRUNOLLI

Done at _____, on _____
LOCATION DATE Christine Sung-An HAU-RIEGE

Done at _____, on _____
LOCATION DATE Mickael MALABRY

Done at _____, on _____
LOCATION DATE Sucheta Kumar HARISH

Done at Bangalore, on 01/01/2014
LOCATION DATE 
Prathiba BALASUBRAMANIAN

Done at Bangalore, on 31/01/14
LOCATION DATE 
Kamesh MEDISETTI

Done at _____, on _____
LOCATION DATE Nikolay BOMSHTAIN

Done at _____, on _____
LOCATION DATE Animesh DATTA

Done at _____, on _____
LOCATION DATE Ohsang KWON