

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>Qinghua Li</td> <td>01/23/2013</td> </tr> <tr> <td>Honggang Li</td> <td>01/15/2013</td> </tr> <tr> <td>Rui Huang</td> <td>01/15/2013</td> </tr> <tr> <td>Yuan Zhu</td> <td>01/16/2013</td> </tr> <tr> <td>Hujun Yin</td> <td>01/14/2013</td> </tr> <tr> <td>Yujian Zhang</td> <td>01/15/2013</td> </tr> <tr> <td>Jong-Kae Fwu</td> <td>01/14/2013</td> </tr> <tr> <td>Rongzhen Yang</td> <td>01/16/2013</td> </tr> </tbody> </table>		Name	Execution Date	Qinghua Li	01/23/2013	Honggang Li	01/15/2013	Rui Huang	01/15/2013	Yuan Zhu	01/16/2013	Hujun Yin	01/14/2013	Yujian Zhang	01/15/2013	Jong-Kae Fwu	01/14/2013	Rongzhen Yang	01/16/2013
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RECEIVING PARTY DATA																			
<table border="1"> <tr> <td>Name:</td> <td>Intel Corporation</td> </tr> <tr> <td>Street Address:</td> <td>2200 Mission College Blvd.</td> </tr> <tr> <td>City:</td> <td>Santa Clara</td> </tr> <tr> <td>State/Country:</td> <td>CALIFORNIA</td> </tr> <tr> <td>Postal Code:</td> <td>95054</td> </tr> </table>		Name:	Intel Corporation	Street Address:	2200 Mission College Blvd.	City:	Santa Clara	State/Country:	CALIFORNIA	Postal Code:	95054								
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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>13751644</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13751644														
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Application Number:	13751644																		
CORRESPONDENCE DATA																			
Fax Number:	6057911857																		
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>																			
Phone:	6054154394																		
Email:	llee@slwip-rc.com																		
Correspondent Name:	Lisa M. Lee																		
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Address Line 4:	Rapid City, SOUTH DAKOTA 57703																		
ATTORNEY DOCKET NUMBER:	884.L86US1																		

PATENT

NAME OF SUBMITTER:

Lisa M. Lee

Total Attachments: 11

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RECORDATION FORM COVER SHEET
PATENTS ONLY

Atty Ref/Docket No.: 884.L86US1

Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Qinghua Li, Honggang Li, Rui Huang, Yuan Zhu, Hujun Yin, Yujian Zhang, Jong-Kae Fwu, Rongzhen Yang

Additional name(s) of conveying party(ies) attached?

Yes No

3. Nature of conveyance:

Assignment Merger
 Security Agreement Change of Name
 Other

Execution Date: January 23, 2013, January 15, 2013,
January 15, 2013, January 16, 2013, January 14, 2013,
January 15, 2013, January 14, 2013, January 16, 2013

2. Name and address of receiving party(ies):

Name: Intel Corporation

Street Address: 2200 Mission College Blvd.

City: Santa Clara State: CA Zip: 95054
Country: United States of America

Additional name(s) & address(es) attached? Yes No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

Serial No. 13/751,644, filed January 28, 2013

B. Patent No.(s)

Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Thomas V. DelRosario

Address:

Schwegman, Lundberg & Woessner, P.A.
P.O. Box 2938
Minneapolis, MN 55402--0938

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41):\$ 40.00

Enclosed

Authorized to be charged to deposit account
19-0743

8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 19-0743

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Thomas V. DelRosario/Reg. No. 46,658
Name of Person Signing

/Thomas V. DelRosario/
Signature

01/29/2013
Date

Total number of pages including cover sheet: 11

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks
Mail Stop Assignment Recordation Services
P.O. Box 1450
Alexandria, VA 22313-1450

PATENT
REEL: 029712 FRAME: 0497

ASSIGNMENT

WHEREAS, Qinghua Li, Honggang Li, Rui Huang, Yuan Zhu, Hujun Yin, Yujian Zhang, Jong-Kae Fwu and Rongzhen Yang (hereinafter the "Undersigned") have made one or more inventions and other subject matter (hereinafter collectively referred to as the "Invention") which are described in a patent application filed on January 28, 2013, which application was assigned US patent application serial number 13/751,644, and which is titled AN APPARATUS AND METHOD TO ESTABLISH A DEVICE-TO-DEVICE (D2D) CONNECTION IN A 3GPP-LTE NETWORK USING A DISTRIBUTED CHANNEL SCAN; which are described in a patent application filed on May 11, 2012, which application was assigned US application serial number 61/646,223, and which is titled ADVANCED WIRELESS COMMUNICATION SYSTEMS AND TECHNIQUES.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged by the Undersigned, the Undersigned do hereby irrevocably and unconditionally:

CONVEY, ASSIGN, AND TRANSFER to Intel Corporation (the "Assignee"), a corporation of the State of Delaware, having a place of business at 2200 Mission College Blvd., Santa Clara, CA 95054, the Undersigned's entire right, title, and interest for the United States and all foreign countries and jurisdictions in and to:

the Invention which is disclosed in the above-identified application or applications;
such application or applications, and all divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other applications for a patent or patents which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries and jurisdictions based in whole or in part on any of such Invention (including any application for a utility model or an innovation patent application);

all original and reissued patents which have been or shall be issued in the United States and all foreign countries and jurisdictions based in whole or in part on any of such Invention;

including the right to claim priority to the above-identified patent application or applications in relation to subject matter based in whole or in part on the above-identified patent application or applications and any of the foregoing including the right to file foreign applications under the provisions of any convention or treaty;

and including the right to all causes of action, remedies, and other enforcement rights related to the above-identified application or applications, including without limitation the right to sue for past, present, or future infringement, misappropriation, or violation of any and all rights related to the above-identified patent application or applications and any of the foregoing, including the right to obtain and collect damages for past, present, or future infringement;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such Invention to the Assignee;

Assignment

Assignors: Qinghua Li et al.

Title: AN APPARATUS AND METHOD TO ESTABLISH A DEVICE-TO-DEVICE (D2D) CONNECTION IN A 3GPP-LTE NETWORK
USING A DISTRIBUTED CHANNEL SCAN

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Docket No: 884.L86US1

Client Ref. No. P46894

AUTHORIZE AND REQUEST that any attorney associated with U.S. Patent and Trademark Office (USPTO) Customer No. 45457 may (directly or through his/her designee) delete, insert, or alter any information related to the above-identified patent application or applications or any of the foregoing, after execution of this Assignment;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or shall be made to others by the Undersigned, and that the full right to convey the same as herein expressed is possessed by the Undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the Undersigned shall (1) execute all provisional, non-provisional, divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other patent applications for the Invention; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers for the Invention; (3) communicate to the Assignee all facts known to the Undersigned relating to the Invention and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for the Invention; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such Invention in the Assignee, or for securing, maintaining and enforcing proper patent protection for the Invention;

COVENANT, that should any provision of this agreement be held unenforceable by an authority of competent jurisdiction, such a ruling shall not affect the validity and enforceability of the remaining provisions. To the extent that any such provision is found to be unenforceable, the Undersigned, when requested and without compensation shall act in good faith to substitute for such provision a new provision with content and purpose as close as possible to the provision deemed unenforceable.

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives, and successors of the Undersigned, and is to extend to the benefit of the successors, assigns, and nominees of the Assignee.

AGREED as of the date of my signature below:

Assignment

Assignors: Qinghua Li et al

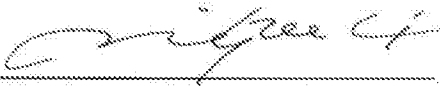
Title: AN APPARATUS AND METHOD TO ESTABLISH A DEVICE-TO-DEVICE (D2D) CONNECTION IN A 3GPP-LTE NETWORK USING A DISTRIBUTED CHANNEL SCAN

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Docket No: 884.LR6US1

Client Ref. No. P49894

Assignor:

(Signature): 

Name: Qinghua Li

City/State: San Ramon, CA

Date: 01/23/2013

Assignment

Assignors: Qingbiao Li et al.

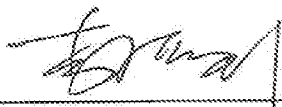
Title: AN APPARATUS AND METHOD TO ESTABLISH A DEVICE-TO-DEVICE (D2D) CONNECTION IN A 3GPP-LTE NETWORK USING A DISTRIBUTED CHANNEL SCAN

Page 4 of 10

Docket No: 2014.1.86US1
Client Ref. No. P46894

Assignor:

(Signature):



Name: Honggang Li

City/State: Beijing, China

Date:

1/15/2013

Assignment

Assignors: Qinghua Li et al.

Title: AN APPARATUS AND METHOD TO ESTABLISH A DEVICE-TO-DEVICE (D2D) CONNECTION IN A 3GPP-LTE NETWORK USING A DISTRIBUTED CHANNEL SCAN

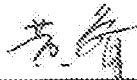
Page 5 of 10

Docket No: 884,LL86US1

Client Ref. No. P46894

Assignor:

(Signature):



Name: Rui Huang

City/State: Beijing, China

Date: 11/15/2013

Assignment

Assignors: Qinghua Li et al.

Title: AN APPARATUS AND METHOD TO ESTABLISH A DEVICE-TO-DEVICE (D2D) CONNECTION IN A 5GPP4-LTE NETWORK USING A DISTRIBUTED CHANNEL SCAN

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Docket No: 2014.1.06(US)

Client Ref. No. P46824

Assignor:

(Signature):

Name: Yuan Zhu

City/State: Beijing, China

Date: 2013-11-16

Assignment

Assignors: Qinghua Li et al.

Title: AN APPARATUS AND METHOD TO ESTABLISH A DEVICE-TO-DEVICE (D2D) CONNECTION IN A 3GPP-LTE NETWORK USING A DISTRIBUTED CHANNEL SCAN

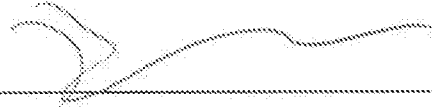
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Docket No: 884.L86US1

Client Ref. No. P46894

Assignor:

(Signature):



Name: Huijun Yin

City/State: Saratoga, CA

Date: 01/14/2011

Assignment

Assignors: Qinghua Li et al.

Title: AN APPARATUS AND METHOD TO ESTABLISH A DEVICE-TO-DEVICE (D2D) CONNECTION IN A 3GPP-LTE NETWORK USING A DISTRIBUTED CHANNEL SCAN

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Docket No: 884.L.86051

Client Ref. No: P48294

Assignor:

(Signature): 张宇建

Name: Yujian Zhang

City/State: Beijing, China

Date: 2013.1.15

Assignment

Assignors: Qinghua Li et al

Title: AN APPARATUS AND METHOD TO ESTABLISH A DEVICE-TO-DEVICE (D2D) CONNECTION IN A 3GPP-LTE NETWORK USING A DISTRIBUTED CHANNEL SCAN

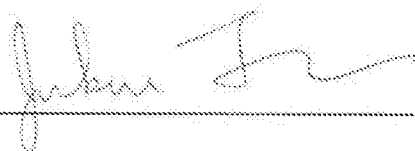
Page 9 of 10

Docket No. 884.L8GUS1

Client Ref. No. P46894

Assignor:

(Signature):



Name: Jong-Kae Fwu

City/State: Sunnyvale, CA

Date:

Jan 14, 2013

Assignment

Assignor: Qinghua Li et al.

DocId No: 884,088,051

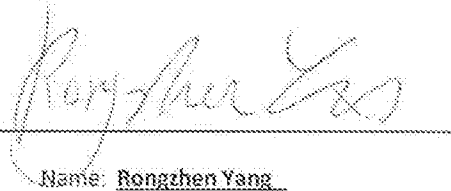
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Title: AN APPARATUS AND METHOD TO ESTABLISH A DEVICE-TO-DEVICE (D2D) CONNECTION IN A 5GPP-LTE NETWORK USING A DISTRIBUTED CHANNEL SCAN

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Assignor:

(Signature):



Name: Rongzhen Yang

City/State: Shanghai, China

Date:

Jan 16, 2013