

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>Chun Woo Lee</td><td>12/11/2009</td></tr><tr><td>Doo Seok Kim</td><td>12/11/2009</td></tr><tr><td>Jong-Ro Park</td><td>12/11/2009</td></tr><tr><td>Guangming Carl Shi</td><td>12/15/2009</td></tr><tr><td>Kyoung Cheol Oh</td><td>12/10/2009</td></tr><tr><td>Kuo-Chun Lee</td><td>12/14/2009</td></tr><tr><td>Tom Chin</td><td>12/15/2009</td></tr></tbody></table> | | Name | Execution Date | Chun Woo Lee | 12/11/2009 | Doo Seok Kim | 12/11/2009 | Jong-Ro Park | 12/11/2009 | Guangming Carl Shi | 12/15/2009 | Kyoung Cheol Oh | 12/10/2009 | Kuo-Chun Lee | 12/14/2009 | Tom Chin | 12/15/2009 |
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| Chun Woo Lee | 12/11/2009 | | | | | | | | | | | | | | | | |
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| Jong-Ro Park | 12/11/2009 | | | | | | | | | | | | | | | | |
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| Kuo-Chun Lee | 12/14/2009 | | | | | | | | | | | | | | | | |
| Tom Chin | 12/15/2009 | | | | | | | | | | | | | | | | |
| 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>12575461</td></tr></tbody></table> | | Property Type | Number | Application Number: | 12575461 | | | | | | | | | | | | |
| Property Type | Number | | | | | | | | | | | | | | | | |
| Application Number: | 12575461 | | | | | | | | | | | | | | | | |
| CORRESPONDENCE DATA | | | | | | | | | | | | | | | | | |
| Fax Number: (858)658-2502 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> | | | | | | | | | | | | | | | | | |
| Phone: 858-658-5568 | | | | | | | | | | | | | | | | | |
| Email: llawlor@qualcomm.com | | | | | | | | | | | | | | | | | |
| Correspondent Name: QUALCOMM Incorporated | | | | | | | | | | | | | | | | | |
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| Address Line 4: San Diego, CALIFORNIA 92121 | | | | | | | | | | | | | | | | | |
| ATTORNEY DOCKET NUMBER: | 082112 | | | | | | | | | | | | | | | | |

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REEL: 023709 FRAME: 0789

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NAME OF SUBMITTER:

Leeanne Lawlor

Total Attachments: 5

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ASSIGNMENT

TO WHOM IT MAY CONCERN:

For the sum of One Dollar and other valuable consideration to us in hand paid, receipt of which is hereby acknowledged, be it known that We,

1. **Chun Woo Lee**, a citizen of **Korea**, having a place of residence at **3195 Kifer Road, Santa Clara, CA, 95051, US**; and a resident of **San Ramon, CA, US**; and
2. **Doo Seok Kim**, a citizen of **Korea**, having a place of residence at **3105 Kifer Road, Santa Clara, CA, 95051, US**; and a resident of **Pleasanton, CA, US**; and
3. **Guangming Carl Shi**, a citizen of the **United States**, having a mailing address of **5775 Morehouse Drive, San Diego, CA, 92121-1714, US**; and a resident of **San Diego, CA, US**; and
4. **Jong-Ro Park**, a citizen of **Korea**, having a place of residence at **3195 Kifer Road, Santa Clara, CA, 94583, US**; and a resident of **San Ramon, CA, US**; and
5. **Kyoung Cheol Oh**, a citizen of the **Korea**, having a mailing address of **3195 Kifer Road, Santa Clara, CA, 95051, US**; and a resident of **Danville, CA, US**; and
6. **Kuo-Chun Lee**, a citizen of the **United States**, having a mailing address of **5775 Morehouse Drive, San Diego, CA, 92121-1714, US**; and a resident of **San Diego, CA, US**; and
7. **Tom Chin**, a citizen of the **United States**, having a mailing address of **5775 Morehouse Drive, San Diego, CA, 92121-1714, US**; and a resident of **San Diego, CA, US**,

have sold, assigned and transferred and by these presents do sell, assign, transfer and set over unto **QUALCOMM Incorporated**, a Delaware corporation, having a place of business at **5775 Morehouse Drive, San Diego, California 92121-1714**, its successors, legal representatives, or assigns, the entire right, title and interest in and to a certain invention relating to **METHODS AND SYSTEMS FOR PERFORMING HARQ ACK WITH SCANNING AND SLEEP IN WIMAX SYSTEMS** by us devised and the application for United States Patent therefore filed in the United States Patent and Trademark Office on **October 7, 2009**, and assigned Serial Number **12/575,461**, including Provisional Application Number **61/118,347**, filed on **November 26, 2008**, and Provisional Application Number **61/146,062**, filed on **January 21, 2009**, and all original and reissue patents granted thereof (in the United States and any foreign county), and all divisionals, continuations-in-part thereof, including the subject matter of any and all claims which may be obtained in every such patent, and all foreign rights to said invention, and

ASSIGNMENT

covenant that we have full right to do so, and agree that we will communicate to said corporation or its representatives all facts known to us respecting said invention, whenever requested, and testify in any legal proceedings, sign all lawful papers, make all rightful oaths and generally do everything possible to aid said corporation, its successors, assigns and nominees, to obtain and enforce proper patent protection for said invention in all countries.

The Commissioner of Patents and Trademarks is requested to issue the Letters Patent which may be granted for said invention or any part thereof unto said corporation in keeping with this Assignment.

Done at Santa Clara, California this 11th day of Dec, 2009.


CHUN WOO LEE

Done at Santa Clara, California this 11th day of DEC, 2009.


DOO SEOK KIM

Done at San Diego, California this _____ day of _____, 2009.

GUANGMING CARL SHI

Done at Santa Clara, California this 11th day of DEC, 2009.


JONG-RO PARK

ASSIGNMENT

covenant that we have full right to do so, and agree that we will communicate to said corporation or its representatives all facts known to us respecting said invention, whenever requested, and testify in any legal proceedings, sign all lawful papers, make all rightful oaths and generally do everything possible to aid said corporation, its successors, assigns and nominees, to obtain and enforce proper patent protection for said invention in all countries.

The Commissioner of Patents and Trademarks is requested to issue the Letters Patent which may be granted for said invention or any part thereof unto said corporation in keeping with this Assignment.

Done at _____, California this _____ day of _____, 2009.

CHUN WOO LEE

Done at _____, California this _____ day of _____, 2009.

DOO SEOK KIM

Done at San Diego, California this 15th day of Dec, 2009.



GUANGMING CARL SHI

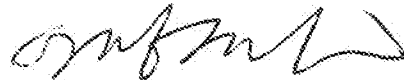
Done at _____, California this _____ day of _____, 2009.

JONG-RO PARK

ASSIGNMENT

The Commissioner of Patents and Trademarks is requested to issue the Letters Patent which may be granted for said invention or any part thereof unto said corporation in keeping with this Assignment.

Done at Santa Clara, California this 10th day of Dec, 2009.



KYOUNG CHEOL OH

Done at San Diego, California this _____ day of _____, 2009.

KUO-CHUN LEE

Done at San Diego, California this _____ day of _____, 2009.

TOM CHIN

ASSIGNMENT

The Commissioner of Patents and Trademarks is requested to issue the Letters Patent which may be granted for said invention or any part thereof unto said corporation in keeping with this Assignment.

Done at _____, California this _____ day of _____, 2009.

KYOUNG CHEOL OH

Done at San Diego, California this 16th day of December, 2009.

Kim C Z

KUO-CHUN LEE

Done at San Diego, California this 15th day of December, 2009.

Tom Chin

TOM CHIN