

PATENT ASSIGNMENT

Electronic Version v1.1
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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>Jong Hyeon Park</td><td>04/15/2009</td></tr><tr><td>Matthias Brehler</td><td>04/22/2009</td></tr><tr><td>Brian Clarke Banister</td><td>02/20/2009</td></tr><tr><td>Allert van Zelst</td><td>02/13/2009</td></tr><tr><td>Tae Ryun Chang</td><td>04/15/2009</td></tr><tr><td>Je Woo Kim</td><td>04/15/2009</td></tr><tr><td>Vincent K. Jones</td><td>02/13/2009</td></tr></tbody></table>		Name	Execution Date	Jong Hyeon Park	04/15/2009	Matthias Brehler	04/22/2009	Brian Clarke Banister	02/20/2009	Allert van Zelst	02/13/2009	Tae Ryun Chang	04/15/2009	Je Woo Kim	04/15/2009	Vincent K. Jones	02/13/2009
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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</td></tr></table>		Name:	QUALCOMM Incorporated	Street Address:	5775 Morehouse Drive	City:	San Diego	State/Country:	CALIFORNIA	Postal Code:	92121						
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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>12351820</td></tr></tbody></table>		Property Type	Number	Application Number:	12351820												
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CORRESPONDENCE DATA																	
Fax Number: (858)658-2502 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>																	
Phone: 858-845-4265																	
Email: llawlor@qualcomm.com																	
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Address Line 1: 5775 MOREHOUSE DR.																	
Address Line 4: SAN DIEGO, CALIFORNIA 92121																	
ATTORNEY DOCKET NUMBER:	082464																

CH \$40.00 12351820

500853786

PATENT
REEL: 022649 FRAME: 0313

NAME OF SUBMITTER:

Leeanne Lawlor

Total Attachments: 7

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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,

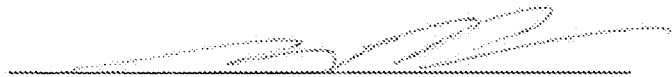
1. **Jong Hyeon Park**, a citizen of **South Korea**, having a place of residence at **1111 Di Napoli Drive, San Jose, CA, 95129, US**;
2. **Matthias Brehler**, a citizen of **Germany**, having a place of residence at **2955 4TH Street, Boulder, CO, 80304, US**; and
3. **Brian Clarke Banister**, a citizen of the **United States**, having a place of residence at **10354 Moselle Street, San Diego, CA, 92131, US**; and
4. **Allert van Zelst**, a citizen of the **Netherlands**, having a place of residence at **Paardebloemweide 53, Woerden, 3448, TL, NL**; and
5. **Tae Ryun Chang**, a citizen of **South Korea**, having a place of residence at **20030 Rodrigues Avenue, #K, Cupertino, CA, 95014, US**; and
6. **Vincent K. Jones**, a citizen of the **United States**, having a place of residence at **2060 Seabrook Court, Redwood City, CA, 94065, US**; and
7. **Je Woo Kim**, a citizen of **South Korea**, having a place of residence at **7486 Bollinger Road, Cupertino, CA, 95014, 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 USING NORM APPROXIMATION FOR MAXIMUM LIKELIHOOD MIMO DECODING** by us devised and the application for United States Patent therefore filed in the United States Patent and Trademark Office on **January 10, 2009**, and assigned Application Number **12/351,820**, including, without limitation, all provisional patent applications, including Provisional Application Number **61/105,008**, filed on **October 13, 2008**, and all original and reissue patents granted thereof (in the United States and any foreign county), and all divisions, and continuations 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 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 me 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.

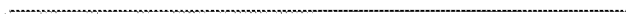
The Commissioner of Patents and Trademarks is requested to issue the Letters Patent which may be granted for said invention or any part thereof unto said corporation in keeping with this Assignment.

Done at Santa Clara California this 15th day of Apr, 2009.



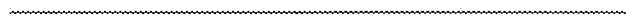
JONG HYEON PARK

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



MATTHIAS BREHLER

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



BRIAN CLARKE BANISTER

which may be obtained in every such patent, and all foreign rights to said invention, and 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 me 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.

JONG HYEON PARK

Done at Boulder, Colorado this 22 day of April, 2009.

Matthias Brehler
MATTHIAS BREHLER

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

BRIAN CLARKE BANISTER

which may be obtained in every such patent, and all foreign rights to said invention, and 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 me 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.

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

JONG HYEON PARK

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

MATTHIAS BREHLER

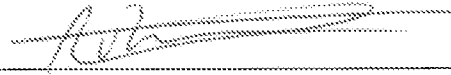
Done at San Diego, California this 20 day of Feb., 2009.



BRIAN CLARKE BANISTER

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 BREUKELEN, NETHERLANDS this 13 day of FEBRUARY, 2009.



ALLERT VAN ZELST

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

TAE RYUN CHANG

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

VINCENT K. JONES

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

JE WOO KIM

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 _____, _____ this _____ day of _____, 2009.

ALLERT VAN ZELST

Done at Santa Clara, California this 15th day of Apr., 2009.



TAE RYUN CHANG

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

VINCENT K. JONES

Done at Cupertino, California this 15th day of April, 2009.



JE WOO KIM

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.

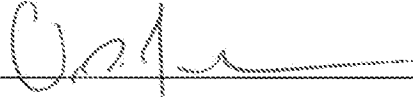
Done at _____, _____ this _____ day of _____, 2009.

ALLERT VAN ZELST

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

TAE RYUN CHANG

Done at Redwood City, California this 13 day of Feb, 2009.



VINCENT K. JONES

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

JE WOO KIM