PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------|----------------|
| Byoung-Hoon Kim | 02/07/2008 |
| Hao Xu | 02/07/2008 |

RECEIVING PARTY DATA

| Name: | QUALCOMM Incorporated | |
|-----------------|-----------------------|--|
| Street Address: | 5775 Morehouse Drive | |
| City: | San Diego | |
| State/Country: | CALIFORNIA | |
| Postal Code: | 92121-1714 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13190160 |

CORRESPONDENCE DATA

Fax Number: (858)658-2502

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 8586582389

Email: US-Docketing@Qualcomm.com Correspondent Name: QUALCOMM Incorporated Address Line 1: 5775 Morehouse Drive

Address Line 4: San Diego, CALIFORNIA 92121-1714

ATTORNEY DOCKET NUMBER: 070651D1 NAME OF SUBMITTER: Judy Bridgwater

Total Attachments: 2

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> **PATENT** REEL: 026644 FRAME: 0079

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PATENT Docket No.: 070651

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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. Byoung-Hoon Kim, a citizen of South Korea, having a place of residence at 5235 Fiore

Terrace C-220, San Diego CA 92122;

2. Hao Xu, a citizen of China P.R., having a place of residence at 12156 Via Milano, San

Diego CA 92128;

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 MIMO

Transmission With Rank-Dependent Precoding by us devised and the application for United

States Patent therefore filed in the United States Patent and Trademark Office on February 7,

2008, and assigned Serial No. 12/027,921 including Provisional Application Number 60/889,255

filed on 2/9/2007, and all original and reissue patents granted thereof, 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.

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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 San Diego, California this 7 day of February, 2008.

Byoung-Hoon Kirn

Done at San Diego, California this 7 day of February, 2008.

PATENT REEL: 026644 FRAME: 0081

RECORDED: 07/25/2011