

PATENT ASSIGNMENT

Electronic Version v1.1
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SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>John W. Ketchum</td> <td>04/22/2002</td> </tr> <tr> <td>Mark Wallace</td> <td>04/22/2002</td> </tr> <tr> <td>Steven J. Howard</td> <td>04/22/2002</td> </tr> <tr> <td>Jay Rod Walton</td> <td>04/22/2002</td> </tr> </tbody> </table>		Name	Execution Date	John W. Ketchum	04/22/2002	Mark Wallace	04/22/2002	Steven J. Howard	04/22/2002	Jay Rod Walton	04/22/2002
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John W. Ketchum	04/22/2002										
Mark Wallace	04/22/2002										
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RECEIVING PARTY DATA											
Name:	QUALCOMM Incorporated										
Street Address:	5775 Morehouse Drive										
City:	San Diego										
State/Country:	CALIFORNIA										
Postal Code:	92121										
PROPERTY NUMBERS Total: 1											
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>11500852</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	11500852						
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Application Number:	11500852										
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:	us-docketing@qualcomm.com										
Correspondent Name:	QUALCOMM Incorporated										
Address Line 1:	5775 Morehouse Drive										
Address Line 4:	San Diego, CALIFORNIA 92121										
ATTORNEY DOCKET NUMBER:	020068C1C1										
NAME OF SUBMITTER:	Leeanne Lawlor										

Total Attachments: 2
 source=020068C1C1_Assignment#page1.tif

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**PATENT
 REEL: 021395 FRAME: 0653**

CH \$40.00 11500852

ASSIGNMENT

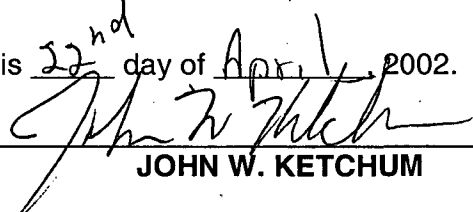
TO WHOM IT MAY CONCERN:

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 **JOHN W. KETCHUM**, a citizen of the United States of America having a place of residence at **37 CANDLEBERRY LANE, HARVARD, MASSACHUSETTS 01451**; **MARK WALLACE**, a citizen of the United States of America having a place of residence at **4 MADEL LANE, BEDFORD, MASSACHUSETTS 01730**; **STEVEN J. HOWARD**, a citizen of the United States of America having a place of residence at **75 HERITAGE AVENUE, ASHLAND, MASSACHUSETTS 01721**; and **JAY ROD WALTON**, a citizen of the United States of America having a place of residence at **7 LEDGEWOOD DRIVE, WESTFORD, MASSACHUSETTS 01886**; 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 whole right, title and interest in and to a certain invention relating to a **TIME-DOMAIN TRANSMIT AND RECEIVE PROCESSING WITH CHANNEL EIGEN-MODE DECOMPOSITION FOR MIMO SYSTEMS** by us devised and the application for United States Patent therefor filed in the United States Patent and Trademark Office on **DECEMBER 07, 2001** and assigned Application Serial No. **10/017,308**, 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 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 Harvard, Massachusetts this 22nd day of April, 2002.



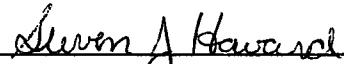
JOHN W. KETCHUM

Done at Bedford, Massachusetts this 22nd day of April, 2002.



MARK WALLACE

Done at Ashland, Massachusetts this 22 day of April, 2002.



STEVEN J. HOWARD

Done at Westford, Massachusetts this 22 day of April, 2002.



JAY ROD WALTON