

## PATENT ASSIGNMENT

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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>Jun Zheng</td><td>03/27/2011</td></tr><tr><td>Vinko Erceg</td><td>03/27/2011</td></tr></tbody></table>	Name	Execution Date	Jun Zheng	03/27/2011	Vinko Erceg	03/27/2011	
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Jun Zheng	03/27/2011						
Vinko Erceg	03/27/2011						
RECEIVING PARTY DATA							
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State/Country:	CALIFORNIA						
Postal Code:	92617						
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>13073775</td></tr></tbody></table>	Property Type	Number	Application Number:	13073775			
Property Type	Number						
Application Number:	13073775						
CORRESPONDENCE DATA							
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Total Attachments: 2 source=BP22335_b_assignment_executed#page1.tif source=BP22335_b_assignment_executed#page2.tif							

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PATENT  
REEL: 026034 FRAME: 0097

Utility Patent Appl. Serial No.: 13/073,775  
Utility Patent Appl. Filing Date: 03-28-2011  
Patent No.: \_\_\_\_\_  
Patent Issue Date: \_\_\_\_\_  
Country: US

### ASSIGNMENT

**WHEREAS**, the undersigned inventor(s), hereinafter called the "Assignors", have invented a new and useful invention entitled:

**LEGACY CYCLIC SHIFT DELAY (CSD) FOR ORTHOGONAL FREQUENCY DIVISION MULTIPLEXING (OFDM) SIGNALING WITHIN MULTIPLE USER, MULTIPLE ACCESS, AND/OR MIMO WIRELESS COMMUNICATIONS**

for which reference a full description is here made in an application for Letters Patent of the United States filed herewith or that was filed with the United States Patent and Trademark Office on the 28th day of March, 2011. The Assignors believe himself/herself/themselves to be the original inventor(s) of the invention disclosed and claimed in the application for Letters Patent.

**WHEREAS**, The entity identified immediately below having a principal office and place of business as identified, hereinafter called the "Assignee", is desirous of acquiring the entire right, title and interest in and to said invention, the application above identified, and in, to and under Letters Patent which may be obtained for said invention, as hereinafter more fully set forth;

**Broadcom Corporation**, a California Corporation  
5300 California Avenue  
Irvine, CA 92617

**NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN**, be it known that for valuable legally sufficient consideration, the receipt of which by the Assignors from the Assignee is hereby acknowledged, the Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer unto the Assignee, its successors and assigns, the entire right, title and interest in and to the invention and the application herein above identified, any and all provisional patent applications from which the application claims priority, and all Letters Patents that may issue for the said invention, and all division, reissues, substitutions, continuations, and extensions thereof, to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns to the full end of the term for which any and all of said Letters Patents for the said invention may issue.

**FURTHER**, be it known that the Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer unto the Assignee, its successors and assigns, the entire foreign rights to the invention disclosed in said application, in all countries of the world, including the right to file applications and obtain patents under the terms of the International Convention, and further agrees to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

And the Assignors do hereby covenant and agree, for themselves and their legal representatives, that they will assist the Assignee in the prosecution of the application herein


Docket No. BP22335

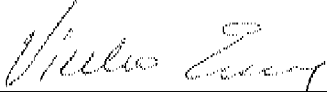
identified; in the making and prosecution of any other applications for Letters Patent that the Assignee may elect to make covering the invention herein identified, as herein before set forth, including any application for reissue, application for reexamination, application for foreign patent rights, or any proceeding in the United States Patent and Trademark Office affecting the invention, investing in the Assignee exclusive title in and to all such other applications and Letters Patent; and in the prosecution of any interference which may arise involving said invention, or any application or Letters Patents herein contemplated; that they will promptly execute and deliver to the Assignee any and all additional papers and make all lawful oaths which may be requested by the Assignee to fully carry out the terms of this assignment; and further that they will communicate to Assignee, or to its successors, assigns, and legal representatives, and facts known respecting said invention, and at the expense of the Assignee, testify in any legal proceedings, and generally do everything possible to aid the Assignee, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

And the Commissioner of the United States Patent and Trademark Office is hereby authorized and requested to issue all Letters Patent to the Assignee in accordance with the terms of the assignment.

IN TESTIMONY WHEREOF, the Assignors have hereunto set their hands on the date indicated below. The undersigned hereby authorizes and requests the attorneys and/or agents of record in the application above identified, and in, to and under Letters Patent which may be obtained for said invention, to insert in this assignment the filing date and serial number of said application (and/or issue date and patent number of said corresponding Letters Patent) when officially known, if applicable.

Inventor(s):

 3/27/2011  
Jun Zheng Date

 3/27/2011  
Vinko Erceg Date

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