#### PATENT ASSIGNMENT

# Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
Saishankar Nandagopalan	03/24/2009
Jeyhan Karaoguz	04/21/2009
Jason A. Trachewsky	03/31/2009
Vinko Erceg	04/10/2009
Christopher J. Hansen	03/27/2009
Matthew James Fischer	03/27/2009
Murat Mese	03/30/2009

#### **RECEIVING PARTY DATA**

Name:	BROADCOM CORPORATION
Street Address:	5300 CALIFORNIA AVENUE
City:	IRVINE
State/Country:	CALIFORNIA
Postal Code:	92617

# PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13750177

## **CORRESPONDENCE DATA**

**Fax Number**: 8887629304

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

Phone: 8172665717

Email: DWATSON@TEXASPATENTS.COM

Correspondent Name: GARLICK & MARKISON
Address Line 1: P. O. Box 160727

Address Line 4: AUSTIN, TEXAS 78716-0727

ATTORNEY DOCKET NUMBER: BP20434C2

PATENT

REEL: 029694 FRAME: 0637

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NAME OF SUBMITTER:	Bruce E. Stuckman, Ph.D.
Total Attachments: 6 source=BP20434C2 ASSMT#page1.tif source=BP20434C2 ASSMT#page2.tif source=BP20434C2 ASSMT#page3.tif source=BP20434C2 ASSMT#page4.tif source=BP20434C2 ASSMT#page5.tif source=BP20434C2 ASSMT#page6.tif	

Utility Patent Appl. Serial No.: 12/428,185
Utility Patent Appl. Filing Date: 4/22/2009
Patent No.:
Datant Icena Data
Country:

#### **ASSIGNMENT**

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

# TRANSCEIVER WITH PLURAL SPACE HOPPING PHASED ARRAY ANTENNAS AND METHODS FOR USE THEREWITH

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 22nd day of April , 2009. 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

Inventor(s):

Docket No. BP20434

identified; in the making and prosecution of any other applications for Letters Patent that the Assignce 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 Assignce 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 Assignce any and all additional papers and make all lawful oaths which may be requested by the Assignce 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.

Pai Charka	A03/24/0	g	
Saishankar Nandagopalan	Date	Jeyhan Karaoguz	Date
Jason A. Trachewsky	Date	Vinko Erceg	Date
Christopher J. Hansen	Date	Matthew James Fischer	Date
Murat Mese	Date	PM-01-00-00-00-00-00-00-00-00-00-00-00-00-	Date
	Date		Date

Docket No. <u>BP20434</u>

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Inventor(s):		Lyhun Xuy	4-21-0
Saishankar Nandagopalan	Date	Jeyhan Karaoguz	Date
Jason A. Trachewsky	Datc	Vinko Erceg	 Date
Christopher J. Hansen	Date	Matthew James Fischer	Date
Murat Mesc	Date		Date
	Date		Date

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Saishankar Nandagopalan	Date	Jeyhan Karaoguz	Date	
	3/31/09			
Jason A. Trackewsky	Date	Vinko Erceg	Date	
MJ 15	3/27/09	Mother for ful	March 27	<i>20</i> 0 '
Christopher J. Hansen	Date	Matthew James Fischer	Date	
Murat Mese	Date		Date	
	Date	<del> </del>	Date	

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Saishankar Nandagopalan	Date	Jeyhan Karaoguz	Date
		Villes Einey	4/00/2
Jason A. Trachewsky	Date	Vinko Erceg	Date /
Christopher J. Hansen	Date	Matthew James Fischer	Date
Murat Mese	Date		Date
	 Date		Date

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Jason A. Trachewsky	Date	Vinko Erceg	Date
Christopher J. Hansen	Date	Matthew James Fischer	Date
Murat Mese	<u> ごう / 3 o / の</u> り Date		Date
	Date		Date

PATENT REEL: 029694 FRAME: 0644

**RECORDED: 01/25/2013**