PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date	
DAVID GARRETT	04/04/2014	
JUN ZHENG	04/04/2014	
NIHAR JINDAL	04/04/2014	

RECEIVING PARTY DATA

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Street Address:	5300 CALIFORNIA AVE.
City:	IRVINE
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Postal Code:	92617

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14262328

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ATTORNEY DOCKET NUMBER:	106861-0113
NAME OF SUBMITTER:	PAUL M. H. PUA
SIGNATURE:	/Paul M. H. Pua/
DATE SIGNED:	04/29/2014

Total Attachments: 4

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PATENT

REEL: 032780 FRAME: 0534 502787710

Client Ref.: BU33059

ASSIGNMENT - WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor (hereinafter referred to singly and collectively as "ASSIGNOR") has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto

Broadcom Corporation 5300 California Ave. Irvine, California 92617

(hereinafter referred to as "ASSIGNEE") its successors and assigns, the full and exclusive right, title and interest for the United States, its territories and possessions, and all foreign countries in and to this invention relating to

IMPROVING OVERALL MU-MIMO CAPACITY FOR USERS WITH UNEQUAL PACKET LENGTHS IN AN MU-MIMO FRAME

as set forth in these United States Patent Applications

[X] Application No.: <u>61/940,175</u> Filed: <u>February 14, 2014</u>

[X] Application No.: 14/262,328 Filed: April 25, 2014

as well as in and to (a) all improvements and modifications of the above-identified invention or inventions, (b) the above-identified application and all other applications for Letters Patent of the United States and countries foreign thereto for above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States and countries foreign thereto, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the Patent Cooperation Treaty, the Paris Convention and any other international agreement; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES ASSIGNEE to file patent applications in any or all countries on the above-identified invention or inventions in the name of the undersigned or in the name of ASSIGNEE or otherwise as ASSIGNEE may deem advisable under the International Convention or otherwise.

Atty. Dkt. No. 106861-0113 (BCOM-002US)

Client Ref.: BU33059

ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

ASSIGNOR HEREBY AGREES (a) to communicate to ASSIGNEE, its successors and assigns, or their representative or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, and declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the law firm of **Foley & Lardner LLP** the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

ASSIGNOR UNDERSTANDS AND AGREES that the attorneys and agents of the law firm of Foley & Lardner LLP do not personally represent ASSIGNOR OR ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.

NAME AND SIGNATURE OF Name: DAVID GARRETT		> Date 4 Ap. 1, 2014
NAME AND SIGNATURE OF	F WITNESSES	• •
Name:	SIGNATURE	Date
Name:	SIGNATURE	Date

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Atty, Dkt. No. 106861-0113 (BCOM-002US) Client Ref.: BU33059

NAME AND SIGNATURE OF IN	<u>VENTOR</u>		4 1 2 3
Name: JUN ZHENG	SIGNATURE	Date	414/2014
NAME AND SIGNATURE OF WI	TNESSES		
Name:	SIGNATURE	Date	·
Name:	SIGNATURE	Date	

Atty. Dkt. No. 106861-0113 (BCOM-002US) Client Ref.: BU33059

NAME	AND SIGNATURE OF IN	IVENTOR			
Name:	NIHAR JINDAL	SIGNATURE	The last of the la	Date	4/4/14
NAME	AND SIGNATURE OF W	TINESSES			
Name:		SIGNATURE		Date	
Name:		SIGNATURE		Date	

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RECORDED: 04/29/2014

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