## 505037817 08/06/2018 PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW	NEW ASSIGNMENT				
NATURE OF CONVEYANCE:		ASSI	ASSIGNMENT				
CONVEYING PARTY	DATA						
				Execution Date			
MARVELL SEMICONDUCTOR, INC.					06/20/2018		
RECEIVING PARTY I	ΟΑΤΑ						
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PROPERTY NUMBER	RS Total: 1						
Property Type			Number				
Application Number: 1601		16014366					
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ATTORNEY DOCKET	NUMBER:		,				
ATTORNEY DOCKET NAME OF SUBMITTEI	NUMBER:	KELV	)283				
Address Line 4: ATTORNEY DOCKET NAME OF SUBMITTEI SIGNATURE: DATE SIGNED:	NUMBER:	KEL\ /Kelv	0283 /IN VIVIAN				
ATTORNEY DOCKET NAME OF SUBMITTEI SIGNATURE: DATE SIGNED:	NUMBER:	KEL\ /Kelv	)283 /IN VIVIAN in Vivian/				
ATTORNEY DOCKET NAME OF SUBMITTEI SIGNATURE:	NUMBER: R:	KEL\ /Kelv 08/06	0283 /IN VIVIAN in Vivian/ 6/2018				
ATTORNEY DOCKET NAME OF SUBMITTEI SIGNATURE: DATE SIGNED: Total Attachments: 3	NUMBER: R: CUTED Ass	KELV /Kelv 08/06	0283 /IN VIVIAN in Vivian/ 6/2018 L#page1.tif				

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## ASSIGNMENT Corporate

Marvell Semiconductor, Inc., a California corporation, having a principal place of business at 5488 Marvell Lane, Santa Clara, CA 95054 (hereafter the "Assignor"), is the owner by respective Assignment of United States Patent Application(s) identified below (hereafter sometimes called the "Patent Application(s)").

Marvell International Ltd., a corporation of Bermuda, having a place of business at Canon's Court, 22 Victoria Street, Hamilton, Hm12, Bermuda (hereafter the "Assignee"), desires to acquire all of the rights to the Patent Application(s) and all inventions described and claimed therein or entitled to the benefit thereof.

THEREFORE, in consideration of the sum of One Dollar (\$1.00) US or equivalent and other good and valuable consideration paid to it, Assignor hereby sells and assigns to the Assignee the entire right, title and interest in and to the Patent Application(s) identified below, and all inventions described and claimed therein or entitled to the benefit thereof, in any and all Letters Patent therefor, and in any and all reissues, extensions, renewals, reexaminations, divisions, continuations and foreign counterparts of such applications or Letters Patent to the full end of the term or terms for which such Letters Patent issue in the United States, its territorial possessions and/or any foreign countries, and all rights, together with all priority rights, under any of the international conventions, unions, agreements, acts, and treaties, including all future conventions, unions, agreements, acts, and treaties, such entire right, title and interest to be held and enjoyed by the above-named Assignee the same as they would have been held and enjoyed by the Assignor had this Assignment and sale not been made.

Marvell Semiconductor, Inc. Case No.	<u>U. S. Serial</u> <u>No.</u>	<u>U. S. Filing</u> <u>Date</u>	Title
MP10283	To be Assigned	Herewith	SYSTEMS AND METHODS FOR PERFORMING IMPLICIT SOUNDING IN MULTI-USER MULTIPLE INPUT MULTIPE OUTPUT (MU-MIMO) SYSTEMS
MP10283PR	62/523,168	June 21, 2017	IMPLICIT MUMINO TOWARDS STAS WITH SOUNDING LIMITATIONS

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> PATENT REEL: 046563 FRAME: 0474

By its undersigned representative, the Assignor agrees

a. to execute all papers necessary in connection with the Patent Application(s) and any continuing, divisional, reissue, reexamination or corresponding application thereof and also to execute separate Assignment in connection with such application as the Assignee may deem necessary or expedient;

b. to execute all papers necessary in connection with any interference which may be declared concerning the Patent Application(s) or any continuation, division, reissue or reexamination thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference; and

c. to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee on any of the Patent Application(s) and on any continuation, division, reissue or reexamination of any of the Patent Application.

The Assignor hereby covenants that it has the full right to convey the entire interest herein assigned, and that it has not executed, and will not execute, any agreement in conflict therewith.

Marvell Semiconductor, Inc., a California corporation, certifies that it is the Assignee of the entire right, title and interest in the Patent Application(s) identified above by virtue of Assignment from the inventors of the Patent Application(s) identified above. Assignment to be recorded in the Patent and Trademark Office as identified below.

Marvell Semiconductor, Inc. Case No.	U. S. Serial No.	Assignment Execution Date
MP10283	To be Assigned	06/12/2018 & 06/13/2018
MP10283PR	62/523,168	06/12/2018 & 06/13/2018

The undersigned has reviewed the documents in the Patent Application(s) identified above and, to the best of undersigned's knowledge and belief, title is in the Assignor identified above.

The undersigned is empowered to sign this certificate on behalf of the Assignor.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, page 2/3 PATENT TRADEMARK OFFICE

> PATENT REEL: 046563 FRAME: 0475

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and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

IN WITNESS WHEREOF, executed by the Assignor's undersigned representative on the date following the undersigned's name.

Marvell Semiconductor, Inc.

By: <u>Am / Van</u> Name: Tam Tran

Title: IP Counsel

Date: \_\_\_\_6/20/18