PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5709379

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
LIWEN CHU	10/19/2015
LEI WANG	11/18/2017
JINJING JIANG	03/08/2018
HONGYUAN ZHANG	02/07/2018
HUI-LING LOU	06/27/2018

RECEIVING PARTY DATA

Name:	MARVELL SEMICONDUCTOR, INC.
Street Address:	5488 MARVELL LANE
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95054

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15669884

CORRESPONDENCE DATA

Fax Number: (408)222-2755

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 408-222-2500
Email: sherir@marvell.com
Correspondent Name: KELVIN VIVIAN

Address Line 1: 5488 MARVELL LANE

Address Line 4: SANTA CLARA, CALIFORNIA 95054

ATTORNEY DOCKET NUMBER: MP6532I1

NAME OF SUBMITTER: KELVIN VIVIAN

SIGNATURE: /Kelvin Vivian/

DATE SIGNED: 09/09/2019

Total Attachments: 10

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PATENT REEL: 050320 FRAME: 0053

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PATENT REEL: 050320 FRAME: 0054

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, each of us, the undersigned,

Liwen Chu, Lei Wang, Jinjing Jiang, Hongyuan Zhang, Hui-Ling Lou

who have created a certain invention for which an application for United States Letters Patent was filed as U.S. Patent Application No. 15/669,884, on August 4, 2017, and entitled:

ACKNOWLEDGMENT DATA UNIT FOR DATA UNIT FRAGMENT

Does hereby sell, assign and transfer to Marvell Semiconductor, Inc., a corporation of California, having a place of business at 5488 Marvell Lane, Santa Clara, CA 95054, its successors, assigns, and legal representatives, the full and exclusive right to said invention and said application and to any and all inventions described in said application for the United States, its territorial possessions and all foreign countries, and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States, its territorial possessions and all foreign countries; and in and to any and all continuations-in-part, continuations, divisions, substitutes, reissues, extensions thereof, and all other applications for Letters Patent relating thereto which have been or shall be filed 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;

Does hereby further sell, assign and transfer to Marvell Semiconductor, Inc., its successors, assigns, and legal representatives, the full and exclusive right to United States Provisional Patent Application No. 62/369,567, filed August 1, 2016, entitled "A-MPDU with Fragment in MU PPDU," and to any and all inventions described in said provisional patent application(s) for the United States, its territorial possessions and all foreign countries, and the entire right, title and interest in and to any and all Letters Patent which may be entitled to the benefit thereof in the United States, its territorial possessions and all foreign countries; and in and to any and all continuations-in-part, continuations, divisions, substitutes, reissues, extensions thereof, and all other applications for Letters Patent relating thereto which have been or shall be filed 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;

Agrees that Marvell Semiconductor, Inc., hereinafter referred to as Assignee, may apply for and receive Letters Patent for said invention and said inventions, hereinafter referred to as said invention, in its own name, in the United States, its territorial possessions, and all foreign countries; and that, when requested to carry out in good faith the intent and purpose of this assignment, at the expense of said Assignee, its successors, assigns and legal representatives, the undersigned will execute all continuations-in-part, continuations, divisions, substitutes, reissues, extensions thereof, execute all rightful oaths, assignments, powers of attorney and other papers, testify in any legal or quasi legal proceedings; communicate to said Assignee, its successors, assigns or legal representatives all facts known to the undersigned relating to said invention and the history thereof; and generally do everything possible which said Assignee, its successors, assigns, or legal representatives shall consider desirable for aiding in securing, maintaining and enforcing proper patent protection for said invention and for vesting title to said invention and all applications for patents on said invention in said Assignee, its successors, assigns, or legal representatives; and

Covenants with said Assignee, its successors, assigns, or legal representatives that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

IN TESTIMONY WHEREOF we have hereunto set our signatures on the date(s) indicated below.

Full Name of First Inve	ntor:	
Liwen Chu		
Inventor's Signature:	2nes	Date: Month/Day/Year

Full Name of Second Inventor:	
Lei Wang	
Inventor's Signature:	Date: Month/Day/Year
Full Name of Third Inventor:	
Jinjing Jiang	
Inventor's Signature:	Date: Month/Day/Year
V1. 24 N.7 (1.2% 1.3 N.	
Full Name of Fourth Inventor:	
Hongyuan Zhang	
Inventor's Signature:	Date: Month/Day/Year
Full Name of Fifth Inventor:	

Hui-Ling Lou	Date: Month/Day/Year
Inventor's Signature:	Date: Moltin/Day/ 1 car
Accepted on behalf of:	
•	
MARVELL SEMICONDUCTOR, INC. By:	
Name: Kelvin Vivian	
Title: Director, Assistant General	Counsel, IP Development
Date 24 JUNE 2019	

ASSIGNMENT

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Full Name of First Inventor:	
Liwen Chu	
Inventor's Signature:	Date: Month/Day/Year

Lei Wang	
Inventor's Signature:	Date: Month/Day/Year
	11/18/2017
Full Name of Third Inventor:	
Jinjing Jiang	
Inventor's Signature:	Date: Month/Day/Year
Full Name of Fourth Inventor:	
Hongyuan Zhang	
Inventor's Signature:	Date: Month/Day/Year
Full Name of Fifth Inventor:	
Hui-Ling Lou	
Inventor's Signature:	Date: Month/Day/Year
Accepted on behalf of:	
MARVELL SEMICONDUCTOR, INC.	
By: Dee VC	
_{Name:} Kelvin Vivian	
Title: Director, Assistant Gene	ral Counsel, IP Development

PATENT

Docket#: MP6532I1

ASSIGNMENT

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IN TESTIMONY WHEREOF we have hereunto set our signatures on the date(s) indicated below.

Full Name of First Inventor:	
Liwen Chu	
Inventor's Signature:	Date: Month/Day/Year

PATENT REEL: 050320 FRAME: 0059

Full Name of Second Inventor:		
Lei Wang		
Inventor's Signature:	Date: Month/Day/Year	
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Full Name of Third Inventor:		
Jinjing Jiang		
Inventor's Signature:	Date: Month/Day/Year	
the the	- 03/08/2018	, command
<u> </u>		
Full Name of Fourth Inventor:		
Hongyuan Zhang		
Inventor's Signature:	Date: Month/Day/Year	
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Full Name of Fifth Inventor:		
Hui-Ling Lou		***************************************
Inventor's Signature:	Date: Month/Day/Year	
Accepted on behalf of:		
MARVELL SEMICONDUCTOR, INC.		
Ву: <u>Ди И</u>		
Name: Kelvin Vivian		
Title: Director; Assistant General	Counsel, IP Development	
Date Z4 JUNE 2019		

ASSIGNMENT

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Full Name of First Inventor:		
Liwen Chu		
Inventor's Signature:	Date: Month/Day/Year	

PATENT

Docket#: MP6532II Full Name of Second Inventor: Lei Wang Date: Month/Day/Year Inventor's Signature: Full Name of Third Inventor: Jinjing Jiang Date: Month/Day/Year Inventor's Signature: Full Name of Fourth Inventor: Hongyuan Zhang Date: Month/Day/Year Inventor's Signature: 02/07/2018 Full Name of Fifth Inventor: Hui-Ling Lou Date: Month/Day/Year Inventor's Signature: Accepted on behalf of: MARVELL SEMICONDUCTOR, INC. By:

Kelvin Vivian

Title: Director, Assistant General Counsel, IP Development

Date: 10 July 2019

ASSIGNMENT

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Full Name of First Inventor: Liwen Chu		
Inventor's Signature:	Date: Month/Day/Year	

PATENT REEL: 050320 FRAME: 0063

1 20 20 2	2.5		
Full Name of	f Second Inventor:		
Lei Wang			
Inventor's Si	gnature:	Date: Month/Day/Year	

Full Name of	f Third Inventor:		
Jinjing Jiang			
Inventor's Si	gnature:	Date: Month/Day/Year	
ł			
Full Name o	f Fourth Inventor:		
Hongyuan Z	hang		
Inventor's Si	gnature:	Date: Month/Day/Year	
·			
Full Name o	f Fifth Inventor:		
Hui-Ling Lo	¥		
Inventor's Si	gnature:	Date: Month/Day/Year	
	Africa	June 27, 2018	
Ł			
Accepted on b	ehalf of:		
MARVELL S	EMICONDUCTOR, INC.		
Ву:			
	vin Vivian		
Title: Din	rector, Assistant General	. Counsel, IP Development	
Date	24 JUNE 2019		