# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7474535

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
DAN TU	07/19/2022
ENRIQUE MUSOLL	07/19/2022
CHIA-HSIN CHEN	04/29/2020
AVINASH SODANI	04/30/2020

## **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:	16864031

### **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:	MP13169
NAME OF SUBMITTER:	KELVIN VIVIAN
SIGNATURE:	/Kelvin Vivian/
DATE SIGNED:	08/08/2022

### **Total Attachments: 8**

source=MP13169 Executed Assignment Inventors-MSI (Accepted)#page1.tif source=MP13169 Executed Assignment Inventors-MSI (Accepted)#page2.tif source=MP13169 Executed Assignment Inventors-MSI (Accepted)#page3.tif

PATENT 507427604 REEL: 060747 FRAME: 0469

source=MP13169 Executed Assignment Inventors-MSI (Accepted)#page4.tif source=MP13169 Executed Assignment Inventors-MSI (Accepted)#page5.tif source=MP13169 Executed Assignment Inventors-MSI (Accepted)#page6.tif source=MP13169 Executed Assignment Inventors-MSI (Accepted)#page7.tif source=MP13169 Executed Assignment Inventors-MSI (Accepted)#page8.tif

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

## Dan Tu, Enrique Musoll, Chia-Hsin Chen, and Avinash Sodani

who have created a certain invention for which one or more patent applications identified below (hereinafter called "the Patent Application(s)") that have been, or are to be, filed:

Marvell Case No.	Application No.	Filing Date	<u>Title</u>
MP13169 (104- 04702-000-US)	16/864,031	4/30/2022	SYSTEM AND METHODS FOR MESH ARCHITECTURE FOR HIGH BANDWIDTH MULTICAST AND BROADCAST NETWORK

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 Patent Application(s) and to any and all inventions described in said Patent Application(s), including applications for Letters Patent 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; 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;

Authorizes and requests that the attorneys of record in any of said Patent Application(s) insert in this assignment the filing date(s) and application number(s) of said Patent Application(s) when officially known;

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 inventors 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 inventors 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 inventors, and that full right to convey the same as herein expressed is possessed by the undersigned inventors.

Page 1 of 2 PATENT

REEL: 060747 FRAME: 0471

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

Full Name of First Inventor:		
Dan Tu		
Inventor's Signature:	Date: Month/Day/Year	
ATE	7/19/2022	
Full Name of Second Inventor:		
Enrique Musoll		
Inventor's Signature:	Date: Month/Day/Year	
Full Name of Third Inventor:		
Chia-Hsin Chen		
Inventor's Signature:	Date: Month/Day/Year	
Full Name of Fourth Inventor:		
Avinash Sodani		
Inventor's Signature:	Date: Month/Day/Year	

Assignees' undersigned representative is empowered to sign this certificate on behalf of Assignee. Assignees's undersigned representative Authorizes and requests that the attorneys of record in any of said Patent Application(s) insert in this assignment the filing date(s) and application number(s) of said Patent Application(s) when officially known.

Accepted on behalf of:

MARVELL SEMICONDUCTOR, INC.

By:

Name: Kelvin M. Vivian

Title: Senior Director, Associate General Counsel, Intellectual Property

Date 21 July 2022

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

### Dan Tu, Enrique Musoll, Chia-Hsin Chen, and Avinash Sodani

who have created a certain invention for which one or more patent applications identified below (hereinafter called "the Patent Application(s)") that have been, or are to be, filed:

Marvell Case No.	Application No.	Filing Date	<u>Title</u>
MP13169 (104- 04702-000-US)	16/864,031	4/30/2022	SYSTEM AND METHODS FOR MESH ARCHITECTURE FOR HIGH BANDWIDTH MULTICAST AND BROADCAST NETWORK

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 Patent Application(s) and to any and all inventions described in said Patent Application(s), including applications for Letters Patent 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; 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, including all future conventions, unions, agreements, acts, and treaties;

Authorizes and requests that the attorneys of record in any of said Patent Application(s) insert in this assignment the filing date(s) and application number(s) of said Patent Application(s) when officially known;

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 inventors 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 inventors 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 inventors, and that full right to convey the same as herein expressed is possessed by the undersigned inventors.

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

Full Name of First Inventor:	
Dan Tu	
Inventor's Signature:	Date: Month/Day/Year
Full Name of Second Inventor:	
Enrique Musoll	
Inventor's Signature: /Enrique Musoll/	Date: Month/Day/Year /7/19/2022/
Full Name of Third Inventor:	
Chia-Hsin Chen	
Inventor's Signature:	Date: Month/Day/Year
Full Name of Fourth Inventor:	
Avinash Sodani	
Inventor's Signature:	Date: Month/Day/Year

Assignees' undersigned representative is empowered to sign this certificate on behalf of Assignee. Assignees's undersigned representative Authorizes and requests that the attorneys of record in any of said Patent Application(s) insert in this assignment the filing date(s) and application number(s) of said Patent Application(s) when officially known.

Accepted on behalf of:

MARVELL SEMICONDUCTOR, INC.

By:

Name: Kelvin M. Vivian

Senior Director, Associate General Counsel, Intellectual Property Title:

Date 21 July 2022

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

# Dan Tu, Enrique Musoll, Chia-Hsin Chen, and Avinash Sodani

who have created a certain invention for which one or more patent applications identified below (hereinafter called "the Patent Application(s)") that have been, or are to be, filed:

Marvell Case No.	Application No.	Filing Date	<u>Title</u>
MP13169 (104- 04702-000-US)	16/864,031	4/30/2022	SYSTEM AND METHODS FOR MESH ARCHITECTURE FOR HIGH BANDWIDTH MULTICAST AND BROADCAST NETWORK

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 Patent Application(s) and to any and all inventions described in said Patent Application(s), including applications for Letters Patent 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; 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, including all future conventions, unions, agreements, acts, and treaties;

Authorizes and requests that the attorneys of record in any of said Patent Application(s) insert in this assignment the filing date(s) and application number(s) of said Patent Application(s) when officially known;

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 inventors 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 inventors 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 inventors, and that full right to convey the same as herein expressed is possessed by the undersigned inventors.

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

Full Name of First Inventor:	
Dan Tu	
Inventor's Signature:	Date: Month/Day/Year
Full Name of Second Inventor:	
Enrique Musoll	
Inventor's Signature:	Date: Month/Day/Year
Full Name of Third Inventor:	
Chia-Hsin Chen	
Inventor's Signature:	Date: Month/Day/Year
anthia	04/29/2020
Full Name of Fourth Inventor:	
Avinash Sodani	
Inventor's Signature:	Date: Month/Day/Year
	<u> </u>

Assignees's undersigned representative is empowered to sign this certificate on behalf of Assignee. Assignees's undersigned representative Authorizes and requests that the attorneys of record in any of said Patent Application(s) insert in this assignment the filing date(s) and application number(s) of said Patent Application(s) when officially known.

Accepted on behalf of:

MARVELL SEMICONDUCTOR, INC.

By: Name:

Kelvin M. Vivian

Title:

Senior Director, Associate General Counsel, Intellectual Property

Date

21 July 2022

Page 2 of 2

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

## Dan Tu, Enrique Musoll, Chia-Hsin Chen, and Avinash Sodani

who have created a certain invention for which one or more patent applications identified below (hereinafter called "the Patent Application(s)") that have been, or are to be, filed:

Marvell Case No.	Application No.	Filing Date	<u>Title</u>
MP13169 (104- 04702-000-US)	` '		SYSTEM AND METHODS FOR MESH ARCHITECTURE FOR HIGH BANDWIDTH MULTICAST AND BROADCAST NETWORK

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 Patent Application(s) and to any and all inventions described in said Patent Application(s), including applications for Letters Patent 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; 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, including all future conventions, unions, agreements, acts, and treaties;

Authorizes and requests that the attorneys of record in any of said Patent Application(s) insert in this assignment the filing date(s) and application number(s) of said Patent Application(s) when officially known;

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 inventors 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 inventors 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 inventors, and that full right to convey the same as herein expressed is possessed by the undersigned inventors.

> Page 1 of 2 **PATENT REEL: 060747 FRAME: 0477**

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

Full Name of First Inventor:	
Dan Tu	
Inventor's Signature:	Date: Month/Day/Year
Full Name of Second Inventor:	
Enrique Musoll	
Inventor's Signature:	Date: Month/Day/Year
Full Name of Third Inventor:	
Chia-Hsin Chen	
Inventor's Signature:	Date: Month/Day/Year
Full Name of Fourth Inventor:	
Avinash Sodani	
Inventor's Signature:	Date: Month/Day/Year
/Avinash Sodani/	04/30/2020

Assignees's undersigned representative is empowered to sign this certificate on behalf of Assignee. Assignees's undersigned representative Authorizes and requests that the attorneys of record in any of said Patent Application(s) insert in this assignment the filing date(s) and application number(s) of said Patent Application(s) when officially known.

Accepted on behalf of:

RECORDED: 08/08/2022

M	[A	\R	٧	ΈLΙ	_ SE	ΜI	$\mathbf{C}$	)N	DI	JС	TC	DR.	INC.

By:

Kelvin M. Vivian Name:

Senior Director, Associate General Counsel, Intellectual Property Title:

21 July 2022 Date

> Page 2 of 2 **PATENT REEL: 060747 FRAME: 0478**