

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
CHUNG-LIANG CHENG	08/07/2019
I-MING CHANG	08/07/2019
HSIANG-PI CHANG	08/07/2019
HSUEH-WEN TSAU	08/07/2019
ZIWEI FANG	09/18/2019
HUANG-LIN CHAO	08/07/2019
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<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16548446
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<b>ATTORNEY DOCKET NUMBER:</b>	0941-4083PUS1
<b>NAME OF SUBMITTER:</b>	TAN T. TU
<b>SIGNATURE:</b>	/TAN T. TU/
<b>DATE SIGNED:</b>	11/08/2019
<b>Total Attachments: 3</b>	

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**PATENT**

**REEL: 050960 FRAME: 0635**

**ASSIGNMENT**

WHEREAS, Chung-Liang CHENG, I-Ming CHANG, Hsiang-Pi CHANG, Hsueh-Wen TSAU, Ziwei FANG and Huang-Lin CHAO

hereafter referred to as ASSIGNOR, has/have invented certain new and useful improvements as described and set forth in the below identified application for United States Letters Patent:

Title: **METHOD FOR FORMING SEMICONDUCTOR DEVICE STRUCTURE**

Filed: \_\_\_\_\_ Serial No. \_\_\_\_\_  
Executed on: \_\_\_\_\_

WHEREAS, Taiwan Semiconductor Manufacturing Co., Ltd., of No. 8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu 300-78, Taiwan R.O.C., hereinafter referred to as ASSIGNEE, is desirous of acquiring ASSIGNOR'S interest in the said invention and application and in any U.S. Letters Patent which may be granted on the same;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable consideration, receipt of which is hereby acknowledged by Assignor, Assignor has/have sold, assigned and transferred, and by these presents does/do sell, assign and transfer unto the said Assignee, and Assignee's successors and assigns, all his/her/their rights, title and interest in and to the said invention and application and all future improvements thereon, and in and to any Letters Patent which may hereafter be granted on the same in the United States, the said interest to be held and enjoyed by said Assignee as fully and exclusively as it would have been held and enjoyed by said Assignor had this Assignment and transfer not been made, to the full end and term of any Letters Patent which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignor further agrees/agree that he/she/they will, without charge to said Assignee, but at Assignee's expense, cooperate with Assignee in the prosecution of said application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as Assignee lawfully may request, to obtain or maintain Letters Patent for said invention and improvement, and to vest title thereto in said Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignor has/have signed his/her/their name(s) on the date(s) indicated.

# ASSIGNMENT

2019/8/7 Chung Liang Cheng  
Date Name: Chung-Liang CHENG

2019/8/7 I-Ming Chang  
Date Name: I-Ming CHANG

2019/8/7 Hsiang-Pi Chang  
Date Name: Hsiang-Pi CHANG

2019/8/7 Hsueh-Wen TSAU  
Date Name: Hsueh-Wen TSAU

                                           
Date Name: Ziwei FANG

2019/8/7 Huang-Lin Chao  
Date Name: Huang-Lin CHAO

## ASSIGNMENT

Date \_\_\_\_\_ Name: Chung-Liang CHENG

Date \_\_\_\_\_ Name: I-Ming CHANG

Date \_\_\_\_\_ Name: Hsiang-Pi CHANG

Date \_\_\_\_\_ Name: Hsueh-Wen TSAU

09/18/2019  
Date

  
Name: Ziwei FANG

Date \_\_\_\_\_ Name: Huang-Lin CHAO