

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5105868

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
HAN-PIN CHUNG	08/03/2018
CHIH-TANG PENG	08/07/2018
TIEN-I BAO	08/07/2018
<b>RECEIVING PARTY DATA</b>	
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<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16047115
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<b>NAME OF SUBMITTER:</b>	DANIEL R. MCCLURE
<b>SIGNATURE:</b>	/Daniel R. McClure/
<b>DATE SIGNED:</b>	08/23/2018
<b>Total Attachments: 2</b>	
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source=00596121#page2.tif	

**ASSIGNMENT**

WHEREAS, Han-Pin CHUNG, Chih-Tang PENG and Tien-I BAO  
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 STRUCTURE WITH HIGH  
ASPECT RATIO**

Filed: 2018-07-27

Serial No. 16/047,115

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

8. 3. 2018      Han Pin Chung  
Date                      Name: Han-Pin CHUNG

08/07/2018      Chih-Tang Peng  
Date                      Name: Chih-Tang PENG

08/07/2018      Tien-I BAO  
Date                      Name: Tien-I BAO