

## PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT								
NATURE OF CONVEYANCE:	ASSIGNMENT								
CONVEYING PARTY DATA									
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Chung-Hao TSAI</td> <td>07/11/2013</td> </tr> <tr> <td>Chuei-Tang WANG</td> <td>07/11/2013</td> </tr> <tr> <td>Chen-Hua YU</td> <td>07/11/2013</td> </tr> </tbody> </table>		Name	Execution Date	Chung-Hao TSAI	07/11/2013	Chuei-Tang WANG	07/11/2013	Chen-Hua YU	07/11/2013
Name	Execution Date								
Chung-Hao TSAI	07/11/2013								
Chuei-Tang WANG	07/11/2013								
Chen-Hua YU	07/11/2013								
RECEIVING PARTY DATA									
Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.								
Street Address:	No.8, Li-Hsin Road. 6, Science-Based Industrial Park								
City:	Hsin-Chu								
State/Country:	TAIWAN								
Postal Code:	300-77								
PROPERTY NUMBERS Total: 1									
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13943256</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13943256				
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Application Number:	13943256								
CORRESPONDENCE DATA									
Fax Number:	7032058050								
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Signature:	/brian olive/								
Date:	07/17/2013								
Total Attachments: 2 source=2013-07-17_Assignment_0941-2794PUS1#page1.tif source=2013-07-17_Assignment_0941-2794PUS1#page2.tif									

OP \$40.00 13943256

**ASSIGNMENT**

WHEREAS, Chung-Hao TSAI, Chuei-Tang WANG, and Chen-Hua YU  
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: **MECHANISMS FOR FORMING BUMP STRUCTURES OVER WIDE METAL PAD**

Filed: July 16, 2013 Serial No. 13/943,256  
Executed on: July 11, 2013

WHEREAS, Taiwan Semiconductor Manufacturing Co., Ltd. of No.8, Li-Hsin Road, 6,  
Science-Based Industrial Park, Hsin-Chu, Taiwan 300-77, R.O.C. hereinafter referred to as  
ASSIGNEES, 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**

07/11/2013      Chung-Hao Tsai  
 Date                      Name: Chung-Hao TSAI      (Last name: TSAI)

7/11/2013      Chuei-Tang Wang  
 Date                      Name: Chuei-Tang WANG      (Last name: WANG)

7/11/13      [Signature]  
 Date                      Name: Chen-Hua YU      (Last name: YU)