

## 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-Yi Lin</td> <td>05/03/2012</td> </tr> <tr> <td>Jiing-Feng Yang</td> <td>05/03/2012</td> </tr> <tr> <td>Tzu-Hao Huang</td> <td>05/03/2012</td> </tr> <tr> <td>Chih-Hao Hsieh</td> <td>05/03/2012</td> </tr> <tr> <td>Dian-Hau Chen</td> <td>05/03/2012</td> </tr> <tr> <td>Hsing-Lin Chen</td> <td>05/03/2012</td> </tr> <tr> <td>Ko-Bin Kao</td> <td>05/03/2012</td> </tr> <tr> <td>Yung-Shih Cheng</td> <td>05/03/2012</td> </tr> </tbody> </table>		Name	Execution Date	Chung-Yi Lin	05/03/2012	Jiing-Feng Yang	05/03/2012	Tzu-Hao Huang	05/03/2012	Chih-Hao Hsieh	05/03/2012	Dian-Hau Chen	05/03/2012	Hsing-Lin Chen	05/03/2012	Ko-Bin Kao	05/03/2012	Yung-Shih Cheng	05/03/2012
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<table border="1"> <tr> <td>Name:</td> <td>Taiwan Semiconductor Manufacturing Company, Ltd.</td> </tr> <tr> <td>Street Address:</td> <td>No. 8, Li-Hsin Road 6</td> </tr> <tr> <td>City:</td> <td>Hsin-Chu</td> </tr> <tr> <td>State/Country:</td> <td>TAIWAN</td> </tr> <tr> <td>Postal Code:</td> <td>300-77</td> </tr> </table>		Name:	Taiwan Semiconductor Manufacturing Company, Ltd.	Street Address:	No. 8, Li-Hsin Road 6	City:	Hsin-Chu	State/Country:	TAIWAN	Postal Code:	300-77								
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Application Number:	13465343																		
CORRESPONDENCE DATA																			
Fax Number:	(214)200-0853																		
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<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>																			
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OP \$40.00 13465343

PATENT

ATTORNEY DOCKET NUMBER:	24061.2011
NAME OF SUBMITTER:	Rachel L.I. Davis
Total Attachments: 4 source=2011_Assignment#page1.tif source=2011_Assignment#page2.tif source=2011_Assignment#page3.tif source=2011_Assignment#page4.tif	

**ASSIGNMENT**

WHEREAS, we,

- |     |                 |    |  |
|-----|-----------------|----|--|
| (1) | Chung-Yi Lin    | of | 2nd Floor, Alley 37, Lane 152, Sec. 10, Chung Hsing Road<br>Hsinchu County, Zhubei City, Hsinchu County 302 Taiwan, R.O.C. |
| (2) | Jiing-Feng Yang | of | 10F, No. 109, Jiafeng 1st Street<br>Zhubei City, Hsinchu County 302, Taiwan, R.O.C.  |
| (3) | Tzu-Hao Huang   | of | 12F, No. 45, Keda 2nd Street<br>Zhubei City, Hsinchu County 302 Taiwan, R.O.C.   |
| (4) | Chih-Hao Hsieh  | of | 2F, No. 8, Lane 68, Sec. 3, Academia Road, Nangang District<br>Taipei City 115, Taiwan, R.O.C.                             |
| (5) | Dian-Hau Chen   | of | No. 210, Alley 271, Wuling Road<br>Hsinchu, Taiwan, R.O.C.   |
| (6) | Hsiang-Lin Chen | of | No. 33, Zefan Road, East District<br>Hsinchu City 300, Taiwan, R.O.C.  |
| (7) | Ko-Bin Kao      | of | No. 33, Alley 58, Lane 1720, Jhongshan Road<br>Shengang Township, Taichung County 429, Taiwan, R.O.C.                      |
| (8) | Yung-Shih Cheng | of | 5F, No. 2-1, Alle 7, Lane 384, Sec. 1, Zhonghua Rd., East District<br>Hsinchu City 300, Taiwan, R.O.C.                     |

have invented certain improvements in

**METHODS OF PATTERNING SMALL VIA PITCH DIMENSIONS**

for which we have filed an application for Letters Patent of the United States of America on \_\_\_\_\_  
May 7, 2012, and assigned U.S. Serial No. 13/465,343; and

WHEREAS, we authorize the attorney of record to update this document to include Patent Office information as deemed necessary (i.e., filing date, serial number, etc.);

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd., ("TSMC"), No. 8, Li-Hsin Rd. 6, Science-Based Industrial Park Hsin-Chu, Taiwan 300-77, Republic of China. is desirous of obtaining the entire right, title, and interest in, to and under the said invention and the said application in the United States of America and in any and all countries foreign thereto;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and other good and valuable consideration, we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said TSMC, its successors, legal representatives, and assigns, the entire right, title, and interest in, to and under the said invention, and the said application, and all divisional, renewal, substitutional, and continuing applications

thereof, and all Letters Patent of the United States of America which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may be filed for said invention in any country or countries foreign to the United States of America, and all extensions, renewals, and reissues thereof, and all prior patents and patent applications from which a filing priority of the above-described patent application may be obtained, including the right to collect past damages; and we hereby authorize and request the Commissioner of Patents of the United States of America, and any official of any country or countries foreign to the United States of America, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said invention to the said TSMC, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to said TSMC, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, renewal, substitutional, continuing, and reissue applications, make all rightful declarations and/or oaths and generally do everything possible to aid the said TSMC, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

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Inventor Name: Chung-Yi Lin

Residence Address: 2nd Floor, Alley 37, Lane 152, Sec. 10, Chung Hsing Road  
Hsinchu County, Zhubei City, Hsinchu County 302 Taiwan, R.O.C.

Dated: ✓ 5/3, 2012

✓ Chung-Yi Lin  
Inventor Signature

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Inventor Name: Jiing-Feng Yang

Residence Address: 10F, No. 109, Jiafeng 1st Street  
: Zhubei City, Hsinchu County 302, Taiwan, R.O.C.

Dated: ✓ 5/3, 2012

✓ Jiing-Feng Yang  
Inventor Signature

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Dated: ✓ 5/3 2012

✓ Tzu-Hao Huang  
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Inventor Name: Chih-Hao Hsieh

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Dated: ✓ Chih-Hao Hsieh 5/3. 2012

✓ Chih-Hao Hsieh  
Inventor Signature

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Inventor Name: Dian-Hau Chen

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Dated: ✓ 5/3 2012

✓ Dian-Hau Chen  
Inventor Signature

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Inventor Name: Hsiang-Lin Chen

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Dated: ✓ 5/3, 2012

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Inventor Name: Yung-Shih Cheng

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Hsinchu City 300, Taiwan, R.O.C.

Dated: ✓ 5/3, 2012

✓ Yung-shih Cheng  
Inventor Signature