

## 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>Ru-Gun Liu</td> <td>07/26/2012</td> </tr> <tr> <td>Shuo-Yen Chou</td> <td>07/26/2012</td> </tr> <tr> <td>Hoi-Tou Ng</td> <td>07/26/2012</td> </tr> <tr> <td>Ken-Hsien Hsieh</td> <td>07/26/2012</td> </tr> <tr> <td>Yi-Yin Chen</td> <td>07/26/2012</td> </tr> </tbody> </table>		Name	Execution Date	Ru-Gun Liu	07/26/2012	Shuo-Yen Chou	07/26/2012	Hoi-Tou Ng	07/26/2012	Ken-Hsien Hsieh	07/26/2012	Yi-Yin Chen	07/26/2012
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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 R. 6, Science Based Industrial Park</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 R. 6, Science Based Industrial Park	City:	Hsin-Chu	State/Country:	TAIWAN	Postal Code:	300-77		
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PROPERTY NUMBERS Total: 1													
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Application Number:	13564019												
CORRESPONDENCE DATA													
<p>Fax Number: 2142000853          Phone: 214-651-5000          Email: linda.ingram@haynesboone.com  <i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>          Correspondent Name: HAYNES AND BOONE, LLP IP Section          Address Line 1: 2323 Victory Avenue          Address Line 2: Suite 700          Address Line 4: Dallas, TEXAS 75219</p>													
ATTORNEY DOCKET NUMBER:	24061.2154												
NAME OF SUBMITTER:	Rachel L.I. Davis												
Total Attachments: 3 source=2154_Assignment#page1.tif source=2154_Assignment#page2.tif source=2154_Assignment#page3.tif													

OP \$40.00 13564019

PATENT

## ASSIGNMENT

WHEREAS, we,

- |     |                 |    |   |
|-----|-----------------|----|---|
| (1) | Ru-Gun Liu      | of | No. 90, Chenggong 5th Street<br>Zhubei City, Hsinchu County 302, Taiwan, R.O.C.                             |
| (2) | Shuo-Yen Chou   | of | No. 415, Sec. 3, Zhongshan Road<br>Ji-an Shiang, Hualien County 973, Taiwan, R.O.C.                         |
| (3) | Hoi-Tou Ng      | of | No. 89, Jinshan 8th Street, East District<br>Hsinchu City 300, Taiwan, R.O.C.                               |
| (4) | Ken-Hsien Hsieh | of | 5F, No. 49, Sec. 2, Roosevelt Road, Da-an District<br>Taipei City 106, Taiwan, R.O.C.                       |
| (5) | Yi-Yin Chen     | of | 7F, No. 53, Alley 3, Lane 219, Sec. 7, Zhongshan N. Rd.<br>Beitou District, Taipei City 112, Taiwan, R.O.C. |

have invented certain improvements in

## METHOD FOR MAKING A MASK FOR AN INTEGRATED CIRCUIT DESIGN

for which we have executed an application for Letters Patent of the United States of America, filed on August 1, 2012, and assigned application no. 13/564,019 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.

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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: Ru-Gun Liu

Residence Address: No. 90, Chenggong 5th Street  
Zhubei City, Hsinchu County 302, Taiwan, R.O.C.

Dated: 26 July 2012

Ru-Gun Liu  
Inventor Signature

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Inventor Name: Shuo-Yen Chou

Residence Address: No. 415, Sec. 3, Zhongshan Road  
Ji-an, Shiang, Hualien County 973, Taiwan, R.O.C.

Dated: 26 July, 2012

Shuo-Yen Chou  
Inventor Signature

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Inventor Name: Hoi-Tou Ng

Residence Address: No. 89, Jinshan 8th Street, East District  
Hsinchu City 300, Taiwan, R.O.C.

Dated: 26 July, 2012

Hoi-Tou Ng  
Inventor Signature

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Inventor Name: Ken-Hsien Hsieh

Residence Address: 5F, No. 49, Sec. 2, Roosevelt Road, Da-an District  
Taipei City 105, Taiwan, R.O.C.

Dated: July 26, 2012

Ken-Hsien Hsieh  
Inventor Signature

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Inventor Name: Yi-Yin Chen

Residence Address: 7F, No. 53, Alley 3, Lane 219, Sec. 7, Zhongshan N. Rd.  
Beitou District, Taipei City 112, Taiwan, R.O.C.

Dated: July 26, 2012

Yi-Yin Chen  
Inventor Signature