

# PATENT ASSIGNMENT

Electronic Version v1.1  
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SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
<b>CONVEYING PARTY DATA</b>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th style="width: 30%;">Execution Date</th> </tr> </thead> <tbody> <tr> <td>Ru-Shang Hsiao</td> <td>03/31/2010</td> </tr> <tr> <td>Kun-Yu Tsai</td> <td>03/26/2010</td> </tr> <tr> <td>Chien-Hsien Tseng</td> <td>03/26/2010</td> </tr> <tr> <td>Shou-Gwo Wu</td> <td>03/26/2010</td> </tr> <tr> <td>Nai-Wen Cheng</td> <td>03/26/2010</td> </tr> </tbody> </table>		Name	Execution Date	Ru-Shang Hsiao	03/31/2010	Kun-Yu Tsai	03/26/2010	Chien-Hsien Tseng	03/26/2010	Shou-Gwo Wu	03/26/2010	Nai-Wen Cheng	03/26/2010
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<b>RECEIVING PARTY DATA</b>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">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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<b>PROPERTY NUMBERS Total: 1</b>													
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<b>CORRESPONDENCE DATA</b>													
<p>Fax Number: (214)200-0853  <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 214-651-5000        Email: ipdocketing@haynesboone.com</p> <p>Correspondent Name: HAYNES AND BOONE, LLP        Address Line 1: 2323 Victory Avenue        Address Line 2: Suite 700        Address Line 4: Dallas, TEXAS 75219</p>													
ATTORNEY DOCKET NUMBER:	24061.1414												
NAME OF SUBMITTER:	David M. O'Dell												

CH \$40.00 12753440

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**PATENT**  
**REEL: 024180 FRAME: 0754**

Total Attachments: 3

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**ASSIGNMENT**

WHEREAS, we,

- |     |                   |    |   |
|-----|-------------------|----|---|
| (1) | Ru-Shang Hsiao    | of | No. 9, Lane 29, Zihciang S. Rd.<br>Jhubei City, Hsinchu County 302, Taiwan, R.O.C.                    |
| (2) | Kun-Yu Tsai       | of | 7F, No. 23, Aly. 3, Ln. 236, Sec. 5, Zhongxiao E. Rd.<br>Xinyi Dist., Taipei City 110, Taiwan, R.O.C. |
| (3) | Chien-Hsien Tseng | of | No. 247 5F-4 Chungyang Rd.<br>Hsin-Chu, Taiwan, R.O.C.  |
| (4) | Shou-Gwo Wu       | of | No. 116, Aly 486, Min-Hu Rd.<br>Hsin-Chu City, Taiwan, R.O.C.   |
| (5) | Nai-Wen Cheng     | of | Park Street 994, Alley 56-9<br>No. Tainan City, Taiwan, R.O.C.  |

have invented certain improvements in

**SENSOR ELEMENT ISOLATION IN A BACKSIDE  
ILLUMINATED IMAGE SENSOR**

for which we have executed an application for Letters Patent of the United States of America,

\_\_\_\_\_ of even date filed herewith; and  
\_\_\_\_\_ x filed on April 2, 2010 and  
assigned application no. 12/753,440 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: Ru-Shang Hsiao

Residence Address: No. 9, Lane 29, Zihciang S. Rd.  
Jhubei City, Hsinchu County 302, Taiwan, R.O.C.

Dated: 03.31.2010

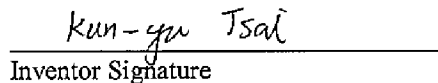
  
Inventor Signature

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Inventor Name: Kun-Yu Tsai

Residence Address: 7F, No. 23, Aly. 3, Ln. 236, Sec. 5, Zhongxiao E. Rd.  
Xinyi Dist., Taipei City 110, Taiwan, R.O.C.

Dated: Mar. 26, 2010

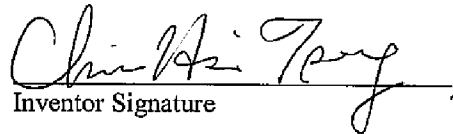
  
Inventor Signature

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Inventor Name: Chien-Hsien Tseng

Residence Address: No. 247 5F-4 Chungyang Rd.  
Hsin-Chu, Taiwan, R.O.C.

Dated: 03/26/10

  
Inventor Signature

---

Inventor Name: Shou-Gwo Wu  
Residence Address: No. 116, Aly 486, Min-Hu Rd.  
Hsin-Chu City, Taiwan, R.O.C.

Dated: 03/26/10


  
Inventor Signature

---

Inventor Name: Nai-Wen Cheng

Residence Address: Park Street 994, Alley 56-9  
No. Tainan City, Taiwan, R.O.C.

Dated: Mar. 26, 2010

  
Inventor Signature