

**PATENT ASSIGNMENT**

Electronic Version v1.1  
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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT								
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT								
<b>CONVEYING PARTY DATA</b>									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Chung Long CHENG</td> <td>11/18/2008</td> </tr> <tr> <td>Kong-Beng THEI</td> <td>11/18/2008</td> </tr> <tr> <td>Harry CHUANG</td> <td>11/18/2008</td> </tr> </tbody> </table>		Name	Execution Date	Chung Long CHENG	11/18/2008	Kong-Beng THEI	11/18/2008	Harry CHUANG	11/18/2008
Name	Execution Date								
Chung Long CHENG	11/18/2008								
Kong-Beng THEI	11/18/2008								
Harry CHUANG	11/18/2008								
<b>RECEIVING PARTY DATA</b>									
<b>Name:</b>	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.								
<b>Street Address:</b>	No. 8, Li-Hsin Rd. 6								
<b>Internal Address:</b>	Science-Based Industrial Park								
<b>City:</b>	Hsin-Chu								
<b>State/Country:</b>	TAIWAN								
<b>Postal Code:</b>	300-77								
<b>PROPERTY NUMBERS Total: 1</b>									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12330347</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12330347				
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Application Number:	12330347								
<b>CORRESPONDENCE DATA</b>									
<b>Fax Number:</b>	(214)200-0853								
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>									
<b>Phone:</b>	9727398635								
<b>Email:</b>	lydia.eppshilliard@haynesboone.com								
<b>Correspondent Name:</b>	David M. O'Dell								
<b>Address Line 1:</b>	HAYNES AND BOONE, LLP IP Section								
<b>Address Line 2:</b>	2323 Victory Avenue, Suite 700								
<b>Address Line 4:</b>	Dallas, TEXAS 75219								
<b>ATTORNEY DOCKET NUMBER:</b>	24061.1161								
<b>NAME OF SUBMITTER:</b>	David M. O'Dell								
Total Attachments: 2									

CH \$40.00 12330347

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**PATENT  
 REEL: 022040 FRAME: 0981**

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Docket No.: 2008-0379 / 24061.1161  
Customer No.: 42717

### ASSIGNMENT

WHEREAS, we,

- |     |                  |    |   |
|-----|------------------|----|---|
| (1) | Chung Long Cheng | of | No. 185, Nankeng Road<br>Baoshan Township, Hsinchu County 308, Taiwan, R.O.C. |
| (2) | Kong-Beng Thei   | of | No. 186, Nan-Kang Road, Pao-Shan Village<br>Hsin-Chu Country, Taiwan, R.O.C.  |
| (3) | Harry Chuang     | of | 18-59 Lane 85, Fu-Chuan Street<br>Hsin-Chu City, Taiwan, R.O.C.               |

have invented certain improvements in

### HYBRID SHALLOW TRENCH ISOLATION FOR HIGH-K METAL GATE DEVICE IMPROVEMENT

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

     of even date filed herewith; and  
xx filed on 2/08/2008 and assigned application number 12/330,347; 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 One Dollar (\$1.00) and other 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.

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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 Long Cheng

Residence Address: No. 185, Nankeng Road  
Baoshan Township, Hsinchu County 308, Taiwan, R.O.C.

Dated: 11/18

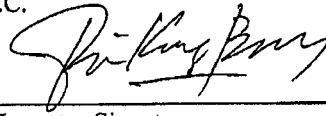
  
Inventor Signature

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Inventor Name: Kong-Beng Thei

Residence Address: No. 186, Nan-Kang Road, Pao-Shan Village  
Hsin-Chu Country, Taiwan, R.O.C.

Dated: 11/18

  
Inventor Signature

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Inventor Name: Harry Chuang

Residence Address: 18-59 Lane 85, Fu-Chuan Street  
Hsin-Chu City, Taiwan, R.O.C.

Dated: 11/18/2008

  
Inventor Signature

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