

**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>Gwan Sin CHANG</td> <td>11/29/2007</td> </tr> <tr> <td>Cheng-Hung YEH</td> <td>11/29/2007</td> </tr> <tr> <td>Feng-Ming CHANG</td> <td>11/30/2007</td> </tr> <tr> <td>Ping-Wei WANG</td> <td>11/30/2007</td> </tr> </tbody> </table>		Name	Execution Date	Gwan Sin CHANG	11/29/2007	Cheng-Hung YEH	11/29/2007	Feng-Ming CHANG	11/30/2007	Ping-Wei WANG	11/30/2007
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Cheng-Hung YEH	11/29/2007										
Feng-Ming CHANG	11/30/2007										
Ping-Wei WANG	11/30/2007										
<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>11949311</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	11949311						
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Application Number:	11949311										
<b>CORRESPONDENCE DATA</b>											
<b>Fax Number:</b>	(214)200-0883										
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>											
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<b>Address Line 4:</b>	Dallas, TEXAS 75202										
<b>ATTORNEY DOCKET NUMBER:</b>	24061.941										
<b>NAME OF SUBMITTER:</b>	David M. O'Dell										

CH \$40.00 11949311

Total Attachments: 3

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**A S S I G N M E N T**

WHEREAS, we,

- |     |                 |    |   |
|-----|-----------------|----|---|
| (1) | Gwan Sin Chang  | of | 551, Nanta Road<br>Hsinchu, Taiwan, R.O.C.  |
| (2) | Cheng-Hung Yeh  | of | No. 77-22, Yingpan Road, Yingpan Village 18<br>Jhunan Township, Miaoli County 350, Taiwan, R.O.C. |
| (3) | Feng-Ming Chang | of | 2-7, Lane 295, Tai-lin Street<br>Chia-yi, Taiwan, R.O.C.  |
| (4) | Ping-Wei Wang   | of | 9F, No. 22, Lane 23, Jian-Zhong First Rd.<br>Hsin-Chu, Taiwan, R.O.C.                             |

have invented certain improvements in

**INTEGRATED CIRCUIT DESIGN USAGE AND SANITY VERIFICATION**

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

  X   of even date filed herewith; and  
  X   filed on Dec. 3, 2007 and assigned application number 11/949,311; and

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.

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: Gwan Sin Chang  
Residence Address: 551, Nanta Road  
Hsinchu, Taiwan, R.O.C.

Dated: 2007. Nov. 29

Gwan-Sin Chang  
Inventor Signature

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Inventor Name: Cheng-Hung Yeh  
Residence Address: No. 77-22, Yingpan Road, Yingpan Village 18  
Jhunan Township, Miaoli County 350, Taiwan, R.O.C.

Dated: Nov. 29, 2007

Cheng-Hung Yeh  
Inventor Signature

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Inventor Name: Feng-Ming Chang  
Residence Address: 2-7, Lane 295, Tai-lin Street  
Chia-yi, Taiwan, R.O.C.

Dated: Nov. 30, 2007

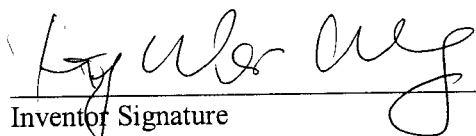
Feng-ming Chang  
Inventor Signature

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Inventor Name: Ping-Wei Wang

Residence Address: 9F, No. 22, Lane 23, Jian-Zhong First Rd.  
Hsin-Chu, Taiwan, R.O.C.

Dated: Nov. 31. '08

  
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Inventor Signature