

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>Chingwen Chang</td><td>07/23/2008</td></tr><tr><td>Wei-Chia Cheng</td><td>07/23/2008</td></tr><tr><td>Shih-Chieh Lin</td><td>07/23/2008</td></tr></tbody></table>		Name	Execution Date	Chingwen Chang	07/23/2008	Wei-Chia Cheng	07/23/2008	Shih-Chieh Lin	07/23/2008
Name	Execution Date								
Chingwen Chang	07/23/2008								
Wei-Chia Cheng	07/23/2008								
Shih-Chieh Lin	07/23/2008								
RECEIVING PARTY DATA									
Name:	Taiwan Semiconductor Manufacturing Company, Ltd.								
Street Address:	No. 8, Li-Hsin, Rd. 6, Science-Based Industrial Park								
City:	Hsin-Chu								
State/Country:	TAIWAN								
Postal Code:	300-77								
PROPERTY NUMBERS Total: 1									
<table border="1"><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody><tr><td>Application Number:</td><td>12198949</td></tr></tbody></table>		Property Type	Number	Application Number:	12198949				
Property Type	Number								
Application Number:	12198949								
CORRESPONDENCE DATA									
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NAME OF SUBMITTER:	Liem Do								
Total Attachments: 2 source=240611016Assignment#page1.tif source=240611016Assignment#page2.tif									

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PATENT

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ASSIGNMENT

WHEREAS, we,

- | | | | |
|-----|----------------|----|---|
| (1) | Chingwen Chang | of | No. 7, Lane 2, Tai-an Street
Taipei, Taiwan, R.O.C. |
| (2) | Wei-Chia Cheng | of | 9, Creation Rd. 1, Hsinchu Science Park
Hsinchu 300-77, Taiwan, R.O.C. |
| (3) | Shih-Chieh Lin | of | No. 235, Nanjing Street
Hualien City, Hualien County 970, Taiwan, R.O.C. |

have invented certain improvements in

**A PROGRAMMABLE SELF-TEST
FOR RANDOM ACCESS MEMORIES**

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 August 27, 2008 and assigned application number 12/198,949; 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.

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.

Inventor Name: Chingwen Chang

Residence Address: No. 7, Lane 2, Tai-an Street
Taipei, Taiwan, R.O.C.


Dated: 7-23-2008


Inventor Signature

Inventor Name: Wei-Chia Cheng

Residence Address: 9, Creation Rd. 1, Hsinchu Science Park
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Dated: 7-23-2008


Inventor Signature

Inventor Name: Shih-Chieh Lin

Residence Address: No. 235, Nanjing Street
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Dated: 7/23/2008


Inventor Signature
