

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>Nai-Han Cheng</td> <td>12/29/2011</td> </tr> <tr> <td>Chin-Hsiang Lin</td> <td>12/29/2011</td> </tr> <tr> <td>Chi-Ming Yang</td> <td>12/29/2011</td> </tr> <tr> <td>Chun-Lin Chang</td> <td>12/29/2011</td> </tr> <tr> <td>Chih-Hong Hwang</td> <td>12/29/2011</td> </tr> </tbody> </table>		Name	Execution Date	Nai-Han Cheng	12/29/2011	Chin-Hsiang Lin	12/29/2011	Chi-Ming Yang	12/29/2011	Chun-Lin Chang	12/29/2011	Chih-Hong Hwang	12/29/2011
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Chun-Lin Chang	12/29/2011												
Chih-Hong Hwang	12/29/2011												
RECEIVING PARTY DATA													
Name:	Taiwan Semiconductor Manufacturing Company Ltd.												
Street Address:	No. 8, Li-Hsin Rd. 6												
Internal Address:	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>13286337</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13286337								
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Application Number:	13286337												
CORRESPONDENCE DATA													
Fax Number:	(214)200-0853												
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ATTORNEY DOCKET NUMBER:	2011-0557/24061.1873												

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NAME OF SUBMITTER:

David M. O'Dell

Total Attachments: 3

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ASSIGNMENT

WHEREAS, we,

- (1) Nai-Han Cheng of No. 30, Alley 10, Lane 81, Guanghua 2nd Street, North District Hsinchu City 300, Taiwan, R.O.C.
- (2) Chin-Hsiang Lin of No. 37, Lane 393, Min-Hu Road Hsin-Chu, Taiwan, R.O.C.
- (3) Chi-Ming Yang of 4, Lane 67, Duan-Feng Road Hsian-San District, Taiwan, R.O.C.
- (4) Chun-Lin Chang of 8F, No. 39, Shengli 5th Road Jhubei City, Hsinchu County 302, Taiwan, R.O.C.
- (5) Chih-Hong Hwang of 1F-1, No. 6, Lane 184, Sec. 1, Zhongshan Road, Yonghe District New Taipei City 234, Taiwan, R.O.C.

have invented certain improvements in

**MULTI-FACTOR ADVANCED PROCESS CONTROL
METHOD AND SYSTEM FOR INTEGRATED CIRCUIT FABRICATION**

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 11/01/2011 and assigned application no. 13/286,337 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

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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: Nai-Han Cheng

Residence Address: No. 30, Alley 10, Lane 81, Guanghua 2nd Street, North District
Hsinchu City 300, Taiwan, R.O.C.


Dated: 2011. 12. 29


Inventor Signature

Inventor Name: Chin-Hsiang Lin

Residence Address: No. 37, Lane 393, Min-Hu Road
Hsin-Chu, Taiwan, R.O.C.

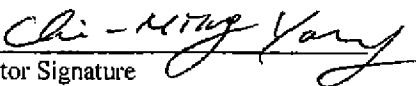
Dated: 2011. 12. 29


Inventor Signature

Inventor Name: Chi-Ming Yang

Residence Address: 4, Lane 67, Duan-Feng Road
Hsian-San District, Taiwan, R.O.C.

Dated: 2011, 12, 29

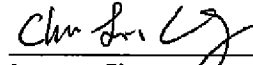

Inventor Signature

Docket No.: 2011-0557 / 24061.1837
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Inventor Name: Chun-Lin Chang

Residence Address: 8F, No. 39, Shengli 5th Road
Jhubei City, Hsinchu County 302, Taiwan, R.O.C.

Dated: 12/29


Inventor Signature

Inventor Name: Chih-Hong Hwang

Residence Address: 1F-1, No. 6, Lane 184, Sec. 1, Zhongshan Road, Yonghe District
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Dated: 2011.12.29


Inventor Signature