

PATENT ASSIGNMENT COVER SHEET

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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>SHICH-CHANG SUEN</td> <td>12/12/2013</td> </tr> <tr> <td>CHI-JEN LIU</td> <td>12/12/2013</td> </tr> <tr> <td>YING-LIANG CHUANG</td> <td>12/12/2013</td> </tr> <tr> <td>LI-CHIEH WU</td> <td>12/12/2013</td> </tr> <tr> <td>LIANG-GUANG CHEN</td> <td>12/12/2013</td> </tr> <tr> <td>MING-LIANG YEN</td> <td>12/12/2013</td> </tr> </tbody> </table>		Name	Execution Date	SHICH-CHANG SUEN	12/12/2013	CHI-JEN LIU	12/12/2013	YING-LIANG CHUANG	12/12/2013	LI-CHIEH WU	12/12/2013	LIANG-GUANG CHEN	12/12/2013	MING-LIANG YEN	12/12/2013
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LIANG-GUANG CHEN	12/12/2013														
MING-LIANG YEN	12/12/2013														
RECEIVING PARTY DATA															
Name:	Taiwan Semiconductor Manufacturing Company, Ltd., ("TSMC")														
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>14134914</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	14134914										
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Application Number:	14134914														
CORRESPONDENCE DATA															
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ATTORNEY DOCKET NUMBER:	2013-0981 / 24061.2638														
PATENT															

OP \$40.00 14134914

NAME OF SUBMITTER:	DAVID M. O'DELL
Signature:	/David M. O'Dell/
Date:	12/19/2013
Total Attachments: 3 source=24061_2638_Assignment#page1.tif source=24061_2638_Assignment#page2.tif source=24061_2638_Assignment#page3.tif	

ASSIGNMENT

WHEREAS, we,

- | | | | |
|-----|-------------------|----|---|
| (1) | Shich-Chang Suen | of | 21F.-1, No.2, Lane 175, Wuling Road, North District, Hsinchu City 300, Taiwan (R.O.C.) |
| (2) | Chi-Jen Liu | of | Rm.3, 13F., No.6, Alley 62, Lane 411, Sec.1 Neihu Road, Neihu District, Taipei City 114, Taiwan (R.O.C) |
| (3) | Ying-Liang Chuang | of | 19F., No.65, Ziqiang 3rd Road, Zhubei City, Hsinchu County 302, Taiwan (R.O.C.) |
| (4) | Li-Chieh Wu | of | 16F.-5, No.1, Lane 175, Wuling Road, North District, Hsinchu City 300, Taiwan (R.O.C.) |
| (5) | Liang-Guang Chen | of | No.393, Sec. 2, Gongdao 5th Road, East District, Hsinchu City 300, Taiwan (R.O.C.) |
| (6) | Ming-Liang Yen | of | No.1, Lane 146, Yanhe Road, Tucheng District, New Taipei City 236, Taiwan (R.O.C.) |

have invented certain improvements in

SYSTEMS AND METHODS FOR CHEMICAL MECHANICAL POLISH and CLEAN

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

 X of even date filed herewith; and
 filed on and assigned application number ; 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.

Inventor Name: Shich-Chang Suen

Residence Address: 21F.-1, No.2, Lane 175, Wuling Road, North District
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✓ Dated: 2013.12.12

✓ Shich-Chang Suen
Inventor Signature

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Residence Address: Rm.3, 13F., No.6, Alley. 62, Lane 411, Sec.1 Neihu Road
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✓ Dated: 2013.12.12

✓ Chi-Jen Liu
Inventor Signature

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✓ Dated: 2013.12.12

✓ Ying-Liang Chuang
Inventor Signature

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✓ Dated: 2013.12.12

✓ Li-Chieh Wu
Inventor Signature

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Residence Address: No.393, Sec. 2, Gongdao 5th Road, East District
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✓ Dated: 12/12/2013

✓ Liang-Guang Chen
Inventor Signature

Inventor Name: Ming-Liang Yen

Residence Address: No.1, Lane 146, Yanhe Road, Tucheng District
New Taipei City 236, Taiwan (R.O.C.)

✓ Dated: Ming-Liang Yen

✓ 2013/12/12
Inventor Signature