

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>YAO-WEI TIEN</td> <td>04/09/2013</td> </tr> <tr> <td>CHI-HUNG LIAO</td> <td>04/09/2013</td> </tr> <tr> <td>MING-YI LEE</td> <td>04/08/2013</td> </tr> </tbody> </table>		Name	Execution Date	YAO-WEI TIEN	04/09/2013	CHI-HUNG LIAO	04/09/2013	MING-YI LEE	04/08/2013				
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<table border="1"> <tr> <td>Name:</td> <td>TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.</td> </tr> <tr> <td>Street Address:</td> <td>NO. 8, LI-HSIN RD. 6</td> </tr> <tr> <td>Internal Address:</td> <td>SCIENCE BASED INDUSTRIAL PARK</td> </tr> <tr> <td>City:</td> <td>HSIN-CHU</td> </tr> <tr> <td>State/Country:</td> <td>TAIWAN</td> </tr> <tr> <td>Postal Code:</td> <td>300-77</td> </tr> </table>		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
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Application Number:	13673664												
CORRESPONDENCE DATA													
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ATTORNEY DOCKET NUMBER:	24061.2284												
NAME OF SUBMITTER:	DAVID M. O'DELL												

Signature:	/David M. O'Dell/
Date:	10/24/2013
Total Attachments: 2 source=24061-2284_Assignment#page1.tif source=24061-2284_Assignment#page2.tif	

Docket No.: 2012-0796 / 24061.2284
Customer No.: 42717

ASSIGNMENT

WHEREAS, we,

- | | | | |
|-----|---------------|----|---|
| (1) | Yao-Wei Tien | of | No. 24, Alley 1, Lane 273, Linsen Road
Hualien City, Hualien County 970, Taiwan R.O.C. |
| (2) | Chi-Hung Liao | of | No. 11, Changlong Street
Sanchong City Taipei County 241, Taiwan R.O.C. |
| (3) | Ming-Yi Lee | of | No. 8, Li Xing 6 Road
Xin Zhu Shi, Taiwan R.O.C. |

have invented certain improvements in

SYSTEM AND METHOD FOR DEFECT ANALYSIS OF A SUBSTRATE

for which we have executed an application for Letters Patent of the United States of America, filed on November 9, 2012, and assigned application number 13/673,664; 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 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

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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: Yao-Wei Tien

Residence Address: No. 24, Alley 1, Lane 273, Linsen Road
Hualien City, Hualien County 970, Taiwan R.O.C.

Dated: Yao-Wei Tien 4/9/2013 4/9/2013 Yao-Wei Tien
Inventor Signature

Inventor Name: Chi-Hung Liao

Residence Address: No. 11, Changlong Street
Sanchong City Taipei County 241, Taiwan R.O.C.

Dated: 4/9/2013 Chi-Hung Liao
Inventor Signature

Inventor Name: Ming-Yi Lee

Residence Address: No. 8, Li Xing 6 Road
Xin Zhu Shi, Taiwan R.O.C.

Dated: Ming-Yi Lee 04/08/2013 Ming-Yi Lee
Inventor Signature