

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>Ying-Chou Cheng</td> <td>04/06/2010</td> </tr> <tr> <td>Cheng-Lung Tsai</td> <td>04/07/2010</td> </tr> <tr> <td>Tsong-Hua Ou</td> <td>04/02/2010</td> </tr> <tr> <td>Cheng Kun Tsai</td> <td>04/02/2010</td> </tr> <tr> <td>Ru-Gun Liu</td> <td>04/02/2010</td> </tr> <tr> <td>Wen-Chun Huang</td> <td>04/06/2010</td> </tr> </tbody> </table>		Name	Execution Date	Ying-Chou Cheng	04/06/2010	Cheng-Lung Tsai	04/07/2010	Tsong-Hua Ou	04/02/2010	Cheng Kun Tsai	04/02/2010	Ru-Gun Liu	04/02/2010	Wen-Chun Huang	04/06/2010
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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 Road 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 Road 6	Internal Address:	Science-Based Industrial Park	City:	Hsin-Chu	State/Country:	TAIWAN	Postal Code:	300-77		
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PROPERTY NUMBERS Total: 1															
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Application Number:	12712665														
CORRESPONDENCE DATA															
Fax Number:	(214)200-0853														
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<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>															
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OP \$40.00 12712665

ATTORNEY DOCKET NUMBER:	24061.1355/2009-0434
NAME OF SUBMITTER:	David M. O'Dell
Total Attachments: 3 source=1355-Assignment#page1.tif source=1355-Assignment#page2.tif source=1355-Assignment#page3.tif	

Assignment

Docket No.: 2009-0434 / 24061.1355
Customer No.: 42717

ASSIGNMENT

WHEREAS, we,

- | | | | |
|-----|-----------------|----|--------------------------------------------------------------------------------------------|
| (1) | Ying-Chou Cheng | of | 7F-2, No. 21, Sec. 1, Jiafeng 11th Road
Zhubei City, Hsinchu County 302, Taiwan, R.O.C. |
| (2) | Cheng-Lung Tsai | of | No. 28, 528 Alley, 640 Lane, Chung-San Road
Hsin-Chu City, Taiwan, R.O.C. |
| (3) | Tsong-Hua Ou | of | 4F, No. 76, Hualing Street, Shihlin District
Taipei City 111, Taiwan, R.O.C. |
| (4) | Cheng Kun Tsai | of | 14F-1, No. 10, Lane 107, Kesyueyuan Road
Hsinchu City 300 |
| (5) | Ru-Gun Liu | of | No. 9, Alley 19, Lane 452, Baoshan Road
Hsinchu City 300, Taiwan, R.O.C. |
| (6) | Wen-Chun Huang | of | 58, Zhong-Shan Road, Xi-Gang Village
Xi-Gang Xiang, Tainan County 723, Taiwan R.O.C. |

have invented certain improvements in

METHOD, SYSTEM, AND APPARATUS FOR ADJUSTING LOCAL AND GLOBAL PATTERN DENSITY OF AN INTEGRATED CIRCUIT DESIGN

for which we have executed an application for Letters Patent of the United States of America, filed on February 25, 2010 and assigned application number February 25, 2010; 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.

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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: Ying-Chou Cheng

Residence Address: 7F-2, No. 21, Sec. 1, Jiafeng 11th Road
Zhubei City, Hsinchu County 302, Taiwan, R.O.C.

Dated: ✓ 2010/04/06

✓ Ying-Chou Cheng
Inventor Signature

Inventor Name: Cheng-Lung Tsai

Residence Address: No. 28, 528 Alley, 640 Lane, Chung-San Road
Hsin-Chu City, Taiwan, R.O.C.

Dated: ✓ 2010/04/07

✓ Cheng-Lung Tsai
Inventor Signature

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Inventor Name: Tsong-Hua Ou

Residence Address: 4F, No. 76, Hualing Street, Shihlin District
Taipei City 111, Taiwan, R.O.C.

Dated: ✓ 2010/04/02

✓ Tsong-Hua Ou
Inventor Signature

Inventor Name: Cheng Kun Tsai

Residence Address: 14F-1, No. 10, Lane 107, Kesyueyuan Road
Hsinchu City 300, Taiwan, R.O.C.

Dated: ✓ 2010/04/02

✓ Cheng-Kun Tsai
Inventor Signature

Inventor Name: Ru-Gun Liu

Residence Address: No. 9, Alley 19, Lane 452, Baoshan Road
Hsinchu City 300, Taiwan, R.O.C.

Dated: ✓ Apr. 2, 2010

✓ Ru-Gun Liu
Inventor Signature

Inventor Name: Wen-Chun Huang

Residence Address: 58, Zhong-Shan Road, Xi-Gang Village
Xi-Gang Xiang, Tainan County 723, Taiwan R.O.C.

Dated: ✓ 2010/04/06

✓ Wen-Chun Huang
Inventor Signature