

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>Yuan-Sheng Huang</td> <td>08/01/2012</td> </tr> <tr> <td>Ming-Ching Chang</td> <td>08/01/2012</td> </tr> <tr> <td>Chao-Cheng Chen</td> <td>08/01/2012</td> </tr> </tbody> </table>		Name	Execution Date	Yuan-Sheng Huang	08/01/2012	Ming-Ching Chang	08/01/2012	Chao-Cheng Chen	08/01/2012				
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CORRESPONDENCE DATA													
<p>Fax Number: 2142000853 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 214-651-5000 Email: ipdocketing@haynesboone.com</p> <p>Correspondent Name: Haynes and Boone LLP Address Line 1: 2323 Victory Avenue Address Line 2: Suite 700 Address Line 4: Dallas, TEXAS 75219</p>													
ATTORNEY DOCKET NUMBER:	24061.2175/2012-0279												
NAME OF SUBMITTER:	David M. O'Dell												
<p>Total Attachments: 2 source=2175Assignment#page1.tif source=2175Assignment#page2.tif</p>													

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Docket No.: 2012-0279 / 24061.2175

Customer No.: 42717

ASSIGNMENT

WHEREAS, we,

- | | | | |
|-----|------------------|----|---|
| (1) | Yuan-Sheng Huang | of | 7F-3, No. 1, Qingdao E. St., North District
Taichung City 404, Taiwan, R.O.C. |
| (2) | Ming-Ching Chang | of | 8F-2, No. 379, Sec. 2, Gongdao 5 th Rd., East District
Hsinchu City 300, Taiwan, R.O.C. |
| (3) | Chao-Cheng Chen | of | #46 3F-2, Lui-Sui Rd.
Shin-Chu city, Taiwan, R.O.C. |

have invented certain improvements in

SEMICONDUCTOR INTEGRATED CIRCUIT WITH METAL GATE

for which we have executed an application for Letters Patent of the United States of America, on July 31, 2012, and assigned application number 13/563,470; 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.

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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: Yuan-Sheng Huang

Residence Address: 7F-3, No. 1, Qingdao E. St., North District
Taichung City 404, Taiwan, R.O.C.

Dated: 2012.8.1

Huang, Yuan-Sheng
Inventor Signature

Inventor Name: Ming-Ching Chang

Residence Address: 8F-2, No. 379, Sec. 2, Gongdao 5th Rd., East District
Hsinchu City 300, Taiwan, R.O.C.

Dated: 2012.8.1

Chang Ming-ching
Inventor Signature

Inventor Name: Chao-Cheng Chen

Residence Address: #46, 3F-2, Lui-Sui Rd.
Shin-Chu City, Taiwan, R.O.C.

Dated: 2012.8.1

Chao-cheng Chen
Inventor Signature