PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|----------------------|----------------|
| Harry Hak-Lay Chuang | 10/14/2009 |
| Kong-Beng Thei | 10/14/2009 |
| Sheng-Chen Chung | 10/14/2009 |
| Chiung-Han Yeh | 10/14/2009 |
| Lee-Wee Teo | 10/14/2009 |
| Yu-Ying Hsu | 10/14/2009 |
| Bao-Ru Young | 10/14/2009 |

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

| Property Type | Number |
|---------------------|----------|
| Application Number: | 12554604 |

CORRESPONDENCE DATA

Fax Number: (214)200-0853 Phone: 214-651-5000

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via US Mail.

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PATENT

REEL: 027265 FRAME: 0054

| ATTORNEY DOCKET NUMBER: | 24061.1271/2009-0134 |
|--|----------------------|
| NAME OF SUBMITTER: | David M. O'Dell |
| Total Attachments: 4 source=1271Assignment#page1.tif source=1271Assignment#page2.tif source=1271Assignment#page3.tif source=1271Assignment#page4.tif | |

PATENT REEL: 027265 FRAME: 0055 Docket No.: 2009-0134 (2009-0135, 2009-0360) / 24061.1271

Customer No.: 42717

ASSIGNMENT

| WHE | REAS, we, | | |
|-----|----------------------|----|--|
| (1) | Harry Hak-Lay Chuang | of | 18-59 Lane 85, Fu-Chuan Street Hsinchu City, Taiwan, R.O.C. |
| (2) | Kong-Beng Thei | of | No. 186, Nan-Kang Road Pao-Shan Village, Hsin-Chu Country, Taiwan, R.O.C. |
| (3) | Sheng-Chen Chung | of | 6F, No. 55-1, Jhuangjing 5 th Street Jhubei City, Hsinchu County 302, Taiwan, R.O.C. |
| (4) | Chiung-Han Yeh | of | No. 214, Dawu Street, North District Tainan City 704, Taiwan, R.O.C. |
| (5) | Lee-Wee Teo | of | , Taiwan, R.O.C. |
| (6) | Yu-Ying Hsu | of | , Taiwan, R.O.C. |
| (7) | Bao-Ru Young | of | No. 7, Lane 1, Liujia 2nd Street Zhubei City, Hsinchu County 302, Taiwan, R.O.C. |

have invented certain improvements in

POLYSILICON DESIGN FOR REPLACEMENT GATE TECHNOLOGY

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

| and assigned application no; |
|---|
| 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 One Dollar (\$1.00) and other 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,

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Docket No.: 2009-0134 (2009-0135, 2009-0360) / 24061.1271

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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.

Harry Hak-Lay Chuang

Residence Address:

18-59 Lane 85, Fu-Chuan Street

Hsinchu City, Taiwan, R.O.C.

Dated: 2009/10/14

Inventor Signature

Inventor Name:

Kong-Beng Thei

Residence Address:

No. 186, Nan-Kang Road

Pao-Shan Village, Hsin-Chu Country, Taiwan, R.O.C.

Dated:

Inventor Signature

Docket No.: 2009-0134 (2009-0135, 2009-0360) / 24061.1271 Customer No.: 42717

| Inventor Name: | Sheng-Chen Chung | |
|--------------------|--|------------------------------------|
| Residence Address: | 6F, No. 55-1, Jhuangjing 5 th Str Jhubei City, Hsinchu County 30 | |
| Dated: VO/(V) | | Suly M Inventor Signature |
| Inventor Name: | Chiung-Han Yeh | |
| Residence Address: | No. 214, Dawu Street, North Di Tainan City 704, Taiwan, R.O. | |
| Dated: 19/14 | 7 | Chang - Han Ych Inventor Signature |
| Inventor Name: | Lee-Wee Teo | |
| Residence Address: | 607, Senja Road, # | 10-06 Singapore |
| Dated: 10/142 | _ | Inventor Signature |
| Inventor Name: | Yu-Ying Hsu | |
| Residence Address: | No. 9 , Lane St Ziyon Taoyuun County , Taiwa | st., fingzhen citu un, R.O.C. |
| | , , | 岩中 蕨 |

Docket No.: 2009-0134 (2009-0135, 2009-0360) / 24061.1271

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Inventor Name:

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Dated: $\frac{|\mathcal{O}/(4/>00)|^{9}}{|\mathcal{O}/(4/>00)|^{9}}$

Inventor Signature

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RECORDED: 11/21/2011

PATENT REEL: 027265 FRAME: 0059