

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT												
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT												
<b>CONVEYING PARTY DATA</b>													
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Chien-Chao Huang</td> <td>02/14/2005</td> </tr> <tr> <td>Yee-Chia Yee</td> <td>02/05/2005</td> </tr> <tr> <td>Chao-Hsiung Wang</td> <td>02/14/2005</td> </tr> <tr> <td>Chun-Chieh Lin</td> <td>02/14/2005</td> </tr> <tr> <td>Chenming Hu</td> <td>02/14/2005</td> </tr> </tbody> </table>		Name	Execution Date	Chien-Chao Huang	02/14/2005	Yee-Chia Yee	02/05/2005	Chao-Hsiung Wang	02/14/2005	Chun-Chieh Lin	02/14/2005	Chenming Hu	02/14/2005
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Chenming Hu	02/14/2005												
<b>RECEIVING PARTY DATA</b>													
<b>Name:</b>	Taiwan Semiconductor Manufacturing Company, Ltd.												
<b>Street Address:</b>	No. 8, Li-Hsin Rd. 6												
<b>Internal Address:</b>	Science-Based Industrial Park												
<b>City:</b>	Hsin-Chu												
<b>State/Country:</b>	TAIWAN												
<b>Postal Code:</b>	300-77												
<b>PROPERTY NUMBERS Total: 1</b>													
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>10710012</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	10710012								
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<b>CORRESPONDENCE DATA</b>													
<b>Fax Number:</b>	(214)200-0853												
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
<b>Phone:</b>	972-739-8635												
<b>Email:</b>	ipdocketing@haynesboone.com												
<b>Correspondent Name:</b>	Haynes and Boone, LLP												
<b>Address Line 1:</b>	901 Main Street, Suite 3100												
<b>Address Line 4:</b>	Dallas, TEXAS 75202												
<b>NAME OF SUBMITTER:</b>	David M. O'Dell												
Total Attachments: 3													

**CH \$40.00 10710012**

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ASSIGNMENT

WHEREAS, I,

- (1) Chien-Chao Huang of 6F-1, No. 32, Ti-Yu St.  
Hsin-Chu City 300, Taiwan, R.O.C.
- (2) Yee-Chia Yeo of ~~Bik 684C Jurong West St. 64, #05-131,  
No. 1, Lne 120, Ling-ya District  
Kaoshiung, Taiwan, R.O.C.~~ *5643684  
Singapore.*
- (3) Chao-Hsiung Wang of 3F-1, No. 178, Shanghei Rd.  
Hsin- Chu, Taiwan 300, R.O.C.
- (4) Chun-Chieh Lin of
- (5) Chenming Hu of ~~60, Ming-Chung Rd  
Yun-Aian Li, Lu-Kang Jen  
Changhua, Taiwan, R.O.C.~~ *Jobo Pebble Drive  
Alamo, CA, 94507  
USA*

have invented certain improvements in

**IMPROVED COBALT SILICIDATION PROCESS FOR  
SUBSTRATES WITH A SILICON GERMANIUM LAYER**

for which I have executed an application for Letters Patent of the United States of America, filed on June 11, 2004 and assigned application number 10/710,012;

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 said invention and 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, I have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto TSMC, its successors, legal representatives, and assigns, the entire right, title, and interest in, to and under the invention, and 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 I 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 TSMC, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND I HEREBY covenant that I have full right to convey the entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

AND I HEREBY further covenant and agree that I will communicate to TSMC, its successors, legal representatives and assigns, any facts known to me 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 TSMC, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

Inventor: Chien-Chao Huang

Dated: ✓ Chien-Chao Huang

✓ Feb. 14, 2005  
Inventor Signature

Inventor: Yee-Chia Yeo

Dated: \_\_\_\_\_

\_\_\_\_\_  
Inventor Signature

Inventor: Chao-Hsiung Wang

Dated: ✓ Chao-Hsiung Wang

✓ Feb. 14, 2005  
Inventor Signature

Inventor: Chun-Chieh Lin

Dated: ✓ Chun-Chieh Lin

✓ Feb. 14, 2005  
Inventor Signature

Inventor: Chenming Hu

Dated: \_\_\_\_\_

\_\_\_\_\_  
Inventor Signature

PATENT / DOCKET NO.: 2001-1531/24061.439  
CUSTOMER NO.: 42717

AND I HEREBY further covenant and agree that I will communicate to TSMC, its successors, legal representatives and assigns, any facts known to me 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 TSMC, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

Inventor: Chien-Chao Huang

Dated: \_\_\_\_\_

\_\_\_\_\_  
Inventor Signature

Inventor: Yee-Chia Yeo

Dated: ✓ 5th Feb. 2005.

✓ *Yee-Chia Yeo.*  
\_\_\_\_\_  
Inventor Signature

Inventor: Chao-Hsiung Wang

Dated: \_\_\_\_\_

\_\_\_\_\_  
Inventor Signature

Inventor: Chun-Chieh Lin

Dated: \_\_\_\_\_

\_\_\_\_\_  
Inventor Signature

Inventor: Chenming Hu

Dated: 2/14/2005

*Chenming Hu*  
\_\_\_\_\_  
Inventor Signature