PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
Weibo YU	10/06/2011
Hsueh-Chin LU	10/13/2011
Han-Guan CHEW	10/28/2011
Kuo Bin HUANG	10/25/2011
Chao-Cheng CHEN	10/06/2011
Syun-Ming JANG	10/06/2011

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:	13244337

CORRESPONDENCE DATA

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

Email: eppsl@haynesboone.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

Correspondent Name: HAYNES AND BOONE, LLP IP Section

Address Line 1: 2323 Victory Avenue

Address Line 2: Suite 700

Address Line 4: Dallas, TEXAS 75219

PATENT

REEL: 027325 FRAME: 0328

P \$40.00 13244337

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ATTORNEY DOCKET NUMBER:	2010-0486/24061.1828	
NAME OF SUBMITTER:	David M. O'Dell	
Total Attachments: 6 source=1828_assignment#page1.tif source=1828_assignment#page2.tif source=1828_assignment#page3.tif source=1828_assignment#page4.tif source=1828_assignment#page5.tif source=1828_assignment#page6.tif		

PATENT REEL: 027325 FRAME: 0329

Docket No.: 2010-0486 / 24061.1828 Customer No.: 42717

ASSIGNMENT

W	HEREAS.	we.
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(1)	Weibo Yu	of	Block 516, #12-157, Woodlands Drive 16 Singapore 730516
(2)	Hsueh-Chin Lu	of	No. 233-46 Chun-Hua Road Hsinchu City, Taiwan, R.O.C.
(3)	Han-Guan Chew	of	Block 691A Choa Chu Kang, Crescent #10-34 Singapore 681691
(4)	Kuo Bin Huang	of	4F, No. 72, Zihciang N. Road Jhubei City, Hsinchu County 302, Taiwan, R.O.C.
(5)	Chao-Cheng Chen	of	#46 3F-2, Lui-Sui Road Shin-Chu City, Taiwan, R.O.C.
(6)	Syun-Ming Jang	of	7F, 83 N. Kuan-Hua Street Hsin-Chu, Taiwan, R.O.C.

have invented certain improvements in

SILICON NITRIDE ETCHING IN A SINGLE WAFER APPARATUS

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

X	of even date filed herewith; and	
xx	filed on $09-24-2011$ and assigned application number $13/244,337$; a	ınd

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

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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 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:	Weibo Yu	
Residence Address:	Block 516, #12-157, Woodland Singapore 730516	s Drive 16
Dated: / 0 / 6 / 7	(1)	Inventor Signature
Inventor Name:	Hsueh-Chin Lu	
Residence Address:	No. 233-46 Chun-Hua Road Hsinchu City, Taiwan, R.O.C.	
Dated: \O\\\	»·//	Inventor Signature
Inventor Name:	Han-Guan Chew	,
Residence Address:	Block 691A Choa Chu Kang, C Singapore 681691.	rescent #10-34
Dated:		Inventor Signature
		:

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Customer No.: 42717

Inventor Name:

Kuo Bin Huang

Residence Address:

4F, No. 72, Zihciang N. Road

Jhubei City, Hsinchu County 302, Taiwan, R.O.C.

Dated: 10/35/2011

Inventor Signature

Inventor Name:

Chao-Cheng Chen

Residence Address:

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Dated: 10 /6 /2011

Inventor Signature

Inventor Name:

Syun-Ming Jang

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Dated: [0[6 / 201]

Inventor Signature

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PATENT REEL: 027325 FRAME: 0332

Docket No.: 2010-0486 / 24061.1828 Customer No.: 42717

ASSIGNMENT

WHEREAS,	we.
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(1)	Weibo Yu	of	Block 516, #12-157, Woodlands Drive 16 Singapore 730516
(2)	Hsueh-Chin Lu	of	No. 233-46 Chun-Hua Road Hsinchu City, Taiwan, R.O.C.
(3)	Han-Guan Chew	of	Block 691A Choa Chu Kang, Crescent #10-34 Singapore 681691
(4)	Kuo Bin Huang	of	4F, No. 72, Zihciang N. Road Jhubei City, Hsinchu County 302, Taiwan, R.O.C.
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for which we have executed an application for Letters Patent of the United States of America,

<u>X</u>	of even date filed herewith; and				
xx	filed on $\frac{09-24-2011}{}$ and assigned application number $\frac{13/244,337}{}$; 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

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Customer No.: 42717

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 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:	Weibo Yu	
Residence Address:	Block 516, #12-157, Woodlands Drive 16 Singapore 730516	
Dated:		
		Inventor Signature
Inventor Name:	Hsueh-Chin Lu	
Residence Address:	No. 233-46 Chun-Hua Road Hsinchu City, Taiwan, R.O.C.	•
Dated:	***	W. C.
		Inventor Signature
Inventor Name:	Han-Guan Chew	
Residence Address:	Block 691A Choa Chu Kang, (Singapore 681691.	Crescent #10-34
Dated:_ 284h 001	Эоц	GND .
	,	Inventor Signature

R-1828 (2010-0486) - Assignment 9-13-11 (re rd)

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Customer No.: 42717

Inventor Name:	Kuo Bin Huang 4F, No. 72, Zihciang N. Road Jhubei City, Hsinchu County 302, Taiwan, R.O.C.	
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Dated:		Inventor Signature
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Residence Address:	#46 3F-2, Lui-Sui Road Shin-Chu City, Taiwan, R.O.C.	
Dated:		
		Inventor Signature
Inventor Name:	Syun-Ming Jang	
Residence Address:	7F, 83 N. Kuan-Hua Street Hsin-Chu, Taiwan, R.O.C.	
Dated:		
		Inventor Signature

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RECORDED: 12/05/2011

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PATENT REEL: 027325 FRAME: 0335