PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Jen-Chi Chang	10/27/2011
Chun-Li Lin	10/27/2011
Kai-Shiung Hsu	10/27/2011
Ming-Shiou Kuo	10/27/2011
Wen-Long Lee	10/27/2011
Po-Hsiung Leu	10/27/2011
Ding-I Liu	10/27/2011

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:	13212904		

CORRESPONDENCE DATA

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

Email: ipdocketing@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 Address Line 1: 2323 Victory Avenue

Address Line 2: Suite 700

Address Line 4: Dallas, TEXAS 75219

PATENT

REEL: 027199 FRAME: 0633

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ATTORNEY DOCKET NUMBER:	2011-0090/24061.1804	
NAME OF SUBMITTER:	David M. O'Dell	
Total Attachments: 8 source=1804Assignment#page1.tif source=1804Assignment#page2.tif source=1804Assignment#page3.tif source=1804Assignment#page4.tif source=1804Assignment#page5.tif source=1804Assignment#page6.tif source=1804Assignment#page7.tif source=1804Assignment#page8.tif		

PATENT REEL: 027199 FRAME: 0634

Customer No.: 42717

ASSIGNMENT

WHE	REAS, we,		
(1)	Jen-Chi Chang	of	9F, No. 595-9, Sec. 2, Jingguo Road, North District Hsinchu City 300, Taiwan, R.O.C.
(2)	Chun-Li Lin	of	10F, No. 52, Shijie Street, East District Hsinchu City 300, Taiwan, R.O.C.
(3)	Kai-Shiung Hsu	of	#3, Lane 277, Jing-Guo 3rd Road, San-Min Area Kaohsiung, Taiwan, R.O.C.
(4)	Ming-Shiou Kuo	of	No. 117-7, Cingcyuan Road, Shalu District Taichung City 433, Taiwan, R.O.C.
(5)	Wen-Long Lee	of	11F-2, No. 52, Lushui Road, East District Hsinchu City 300, Taiwan, R.O.C.
(6)	Po-Hsiung Leu	of	No. 49-5, Neighborhood 3, Chang-Sing Village Lujhu Township, Taoyuan County 338, Taiwan, R.O.C
(7)	Ding-I Liu	of	4F-2, No. 28, Tiyu Street, East District Hsinchu City 300, Taiwan, R.O.C.

have invented certain improvements in

INTERLAYER DIELECTRIC STRUCTURE AND METHOD MAKING THE SAME

for which we have executed an application for Letters Patent of the United States of America on August 18, 2011 ____, as U.S. Serial No. 13/212, 904; 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

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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.

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:

Jen-Chi Chang

Residence Address:

9F, No. 595-9, Sec. 2, Jingguo Road, North District

Hsinchu City 300, Taiwan, R.O.C.

Dated: 2011. 10.27

Inventor Signature

Inventor Name:

Chun-Li Lin

Residence Address:

10F, No. 52, Shijie Street, East District

Hsinchu City 300, Taiwan, R.O.C.

Dated: 00 [10, 2]

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Inventor Signature

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Inventor Name:	Kai-Shiung Hsu	
Residence Address:	#3, Lane 277, Jing-Guo 3rd Roa Kaohsiung, Taiwan, R.O.C.	d, San-Min Area
Dated: 20 [[.	(9, 7)	Kai - Shiny Hsu Inventor Signature
Inventor Name:	Ming-Shiou Kuo	
Residence Address:	No. 117-7, Cingcyuan Road, Sh Taichung City 433, Taiwan, R.C	
Dated:		Inventor Signature
Inventor Name:	Wen-Long Lee	
Residence Address:	11F-2, No. 52, Lushui Road, Ea Hsinchu City 300, Taiwan, R.O	
Dated: 20 (· »)	Wan-Long Lee Inventor Signature
Inventor Name:	Po-Hsiung Leu	
Residence Address:	No. 49-5, Neighborhood 3, Cha Lujhu Township, Taoyuan Cou	
Dated: 2011.10	»· 2)	Po-11stung Lev Inventor Signature
· · · · · · · · · · · · · · ·	/	

Customer No.: 42717

Inventor Name:

Ding-I Liu

Residence Address:

4F-2, No. 28, Tiyu Street, East District

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Hsinchu City 300, Taiwan, R.O.C.

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Dated: 2011-10-27

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> **PATENT REEL: 027199 FRAME: 0638**

Customer No.: 42717

ASSIGNMENT

WHE	REAS, we,		
(1)	Jen-Chi Chang	of	9F, No. 595-9, Sec. 2, Jingguo Road, North District Hsinchu City 300, Taiwan, R.O.C.
(2)	Chun-Li Lin	of	10F, No. 52, Shijie Street, East District Hsinchu City 300, Taiwan, R.O.C.
(3)	Kai-Shiung Hsu	of	#3, Lane 277, Jing-Guo 3rd Road, San-Min Area Kaohsiung, Taiwan, R.O.C.
(4)	Ming-Shiou Kuo	of	No. 117-7, Cingcyuan Road, Shalu District Taichung City 433, Taiwan, R.O.C.
(5)	Wen-Long Lee	of	11F-2, No. 52, Lushui Road, East District Hsinchu City 300, Taiwan, R.O.C.
(6)	Po-Hsiung Leu	of	No. 49-5, Neighborhood 3, Chang-Sing Village Lujhu Township, Taoyuan County 338, Taiwan, R.O.C
(7)	Ding-I Liu	of	4F-2, No. 28, Tiyu Street, East District Hsinchu City 300, Taiwan, R.O.C.

have invented certain improvements in

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for which we have executed an application for Letters Patent of the United States of America on August 8, 2011, as U.S. Serial No. 13/212, 904; 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

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Docket No.: 2011-0090 / 24061.1804

Customer No.: 42717

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.

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:	Jen-Chi Chang	
Residence Address:	9F, No. 595-9, Sec. 2, Jingguo Road, North District Hsinchu City 300, Taiwan, R.O.C.	
Dated:		
	Inventor Signature	
Inventor Name:	Chun-Li Lin	
Residence Address:	10F, No. 52, Shijie Street, East District Hsinchu City 300, Taiwan, R.O.C.	
Dated:		
	Inventor Signature	

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Inventor Name:	Kai-Shiung Hsu	
Residence Address:	#3, Lane 277, Jing-Guo 3rd Roa Kaohsiung, Taiwan, R.O.C.	ad, San-Min Area
Dated:		Inventor Signature
Inventor Name:	Ming-Shiou Kuo	
Residence Address:	No. 117-7, Cingcyuan Road, Sh Taichung City 433, Taiwan, R.G	
Dated: 2011, 1	0, >/)	Mrg-Shou Kuo. Inventor Signature
Inventor Name:	Wen-Long Lee	
Residence Address:	11F-2, No. 52, Lushui Road, Ea Hsinchu City 300, Taiwan, R.O	
Dated:		
		Inventor Signature
Inventor Name:	Po-Hsiung Leu	
Residence Address:	No. 49-5, Neighborhood 3, Cha Lujhu Township, Taoyuan Cou	
Dated:		
		Inventor Signature

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Docket No.: 2011-0090 / 24061.1804

Customer No.: 42717

Inventor Name:

Ding-I Liu

Residence Address:

4F-2, No. 28, Tiyu Street, East District Hsinchu City 300, Taiwan, R.O.C.

Dated:

Inventor Signature

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RECORDED: 11/09/2011

PATENT REEL: 027199 FRAME: 0642