PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT2589719

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NATURE OF CONVI	EYANCE:						
CONVEYING PART	Y DATA						
		Name	Execution Date				
CHENG-HUNG CHEN			08/01/2013				
JAW-JUNG SHIN		08/01/2013					
SHY-JAY LIN		08/02/2013					
WEN-CHUAN WAN	G	08/02/2013					
PEI-YI LIU			08/01/2013				
BURN JENG LIN			08/02/2013				
RECEIVING PARTY			OMPANY LTD				
Name:	e: TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.						
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Internal Address:	SCIENCE BA	SCIENCE BASED INDUSTRIAL PARK					
City:	HSIN-CHU	HSIN-CHU					
State/Country:		TAIWAN					
Postal Code:	300-77						
PROPERTY NUMBE	RS Total: 1						
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	Туре	Num 13954635	ber				
Property	Туре :		ber				
Property Application Number	Type	13954635	ber				
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REEL: 031468 FRAME: 0977

NAME OF SUBMITTER:	DAVID M. O'DELL
Signature:	/David M. O'Dell/
Date:	10/24/2013
Total Attachments: 3 source=24061-2547_Assignment#page1.tif source=24061-2547_Assignment#page2.tif source=24061-2547_Assignment#page3.tif	

Docket No.: 2013-0391/24061.2547 Customer No.: 000042717

ASSIGNMENT

WHEREAS, we,

1 3912/87/31 19:33.34

(1)	Cheng-Hung Chen	of	9F, No. 3, Liujia 8th Street, Zhubei City Hsinchu County 302 Taiwan, R.O.C.
(2)	Jaw-Jung Shin	of	10F, No. 72-11, Lane 531, Section 1 Guangfu Road, East District Hsinchu City 300, Taiwan, R.O.C
(3)	Shy-Jay Lin	of	No. 15, Alley 36, Lane 134 Yuanshan Road, Jhudong Township Hsinchu County 310, Taiwan, R.O.C.
(4)	Wen-Chuan Wang	of	3F-2, No. 133, Jiangong 1st Road East District, Hsinchu City 300 Taiwan, R.O.C.
(5)	Pei-Yi Liu	of	No .62, Lane 200, Zhuhe Road Changhua City, Changhua County 500 Taiwan R.O.C.
(6)	Burn Jeng Lin	of	153 Guang Fu Road, Section 1, Lane 89. 1st Floor, HsinChu City Taiwan, R.O.C.

have invented certain improvements in

METHOD FOR ELECTRON-BEAM PROXIMITY CORRECTION WITH IMPROVED CRITICAL DIMENSION ACCURACY

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

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of even date filed herewith; and filed on July 30, 2013, and assigned application number 13/954,635; 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

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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, 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: Cheng-Hung Chen

Residence Address:

M386 8613/67/81 18123:5

9F, No .3, Liujia 8th Street Zhubei City, Hsinchu County 302 Taiwan, R.O.C.

2013.6 Dated:

Chang Hung Inventor Signature

Inventor Name:

Jaw-Jung Shin

Residence Address:

10F, No. 72-11, Lane 531, Section 1, Guangfu Road, East District Hsinchu City 300, Taiwan, R.O.C

Dated

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-2-

		Docket No.: 2013-0391/24061.2547 Customer No.: 000042717	
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	Dated: <u>8/2/</u>	2013 Shy - Jay Lin Inversion Signature	
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	Residence Address:	3F-2, No. 133, Jiangong 1st Road, East District Hsinchu City 300 Taiwan, R.O.C.	
	Dated: 08/02/	20/3 Inventor Signature	
	Inventor Name:	Pei-Yi Liu	
	Residence Address:	No .62, Lane 200, Zhuhe Road Changhua City, Changhua County 500 Taiwan R.O.C.	
	Dated:013. Au	g ol <u>Peir Ji</u> Inventor Signature	
	Inventor Name:	Burn Jeng Lin	
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RECORDED: 10/24/2013

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