

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT														
NATURE OF CONVEYANCE:	ASSIGNMENT														
CONVEYING PARTY DATA															
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>CHENG-HSIUNG TSAI</td> <td>11/27/2013</td> </tr> <tr> <td>YUNG-HSU WU</td> <td>11/27/2013</td> </tr> <tr> <td>TSUNG-MIN HUANG</td> <td>12/02/2013</td> </tr> <tr> <td>CHUNG-JU LEE</td> <td>11/27/2013</td> </tr> <tr> <td>TIEN-I BAO</td> <td>11/27/2013</td> </tr> <tr> <td>SHAU-LIN SHUE</td> <td>11/27/2013</td> </tr> </tbody> </table>		Name	Execution Date	CHENG-HSIUNG TSAI	11/27/2013	YUNG-HSU WU	11/27/2013	TSUNG-MIN HUANG	12/02/2013	CHUNG-JU LEE	11/27/2013	TIEN-I BAO	11/27/2013	SHAU-LIN SHUE	11/27/2013
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<table border="1"> <tr> <td>Name:</td> <td>Taiwan Semiconductor Manufacturing Company, Ltd.</td> </tr> <tr> <td>Street Address:</td> <td>No. 8, Li-Hsin Rd. 6</td> </tr> <tr> <td>Internal Address:</td> <td>Science-Based Industrial Park</td> </tr> <tr> <td>City:</td> <td>Hsin-Chu</td> </tr> <tr> <td>State/Country:</td> <td>TAIWAN</td> </tr> <tr> <td>Postal Code:</td> <td>300-77 R.O.C.</td> </tr> </table>		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 R.O.C.		
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PROPERTY NUMBERS Total: 1															
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Application Number:	14098315														
CORRESPONDENCE DATA															
Fax Number:	(972)732-9218														
Phone:	972-732-1001														
Email:	docketing@slater-matsil.com														
<i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i>															
Correspondent Name:	SLATER & MATSIL, L.L.P.														
Address Line 1:	17950 PRESTON ROAD														
Address Line 2:	SUITE 1000														
Address Line 4:	DALLAS, TEXAS 75252														
ATTORNEY DOCKET NUMBER:	TSM13-1342														

PATENT

NAME OF SUBMITTER:	JENNIFER RUBIO
Signature:	/Jennifer Rubio/
Date:	12/05/2013
Total Attachments: 2 source=TSM13-1342 Signed Assignment 2013-12-04#page1.tif source=TSM13-1342 Signed Assignment 2013-12-04#page2.tif	

ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made; and

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd. ("Assignee"), a corporation organized and existing under the laws of Taiwan, the Republic of China, with its principal office at No. 8, Li-Hsin Rd. 6 Science-Based Industrial Park, Hsin-Chu 300-77, Taiwan, R.O.C., is desirous of acquiring my entire right, title and interest in and to said invention, and to said application and any Letters Patent that may issue thereon in the United States and all other countries throughout the world;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to said Assignee, its successors and assigns, my entire right, title and interest in and to said invention and in and to said application and all patents which may be granted therefor, and all future non-provisional applications including divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner for Patents to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to said Assignee, as assignee of my entire right, title and interest. I declare that I have not executed and will not execute any agreement in conflict herewith.

I also hereby sell and assign to Assignee, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including, but not limited to, the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I hereby further agree that I will communicate to said Assignee, or to its successors, assigns, and legal representatives, any facts known to me respecting said invention or the file history thereof, and at the expense of said Assignee, its legal representatives, successors, or assigns, will testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said Assignee, its legal representatives, successors, and assigns, to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year;

TITLE OF INVENTION	Self-Aligned Double Spacer Patterning Process			
SIGNATURE OF INVENTOR AND NAME	✓ Yung-Hsu Wu Yung-Hsu Wu	✓ Tsung-Min Huang Tsung-Min Huang	✓ Cheng-Hsiung Tsai Cheng-Hsiung Tsai	✓ Chung-Ju Lee Chung-Ju Lee
DATE	✓ 11/27, 2013	✓ 2013/12/2	✓ 11/27, 2013	✓ 11/27, 2013
RESIDENCE	Taipei City, Taiwan	Taichung City, Taiwan	Zhunan Township, Taiwan	Hsin-Chu, Taiwan

ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made; and

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd. ("Assignee"), a corporation organized and existing under the laws of , with its principal office at No. 8, Li-Hsin Rd. 6 Science-Based Industrial Park, is desirous of acquiring my entire right, title and interest in and to said invention, and to said application and any Letters Patent that may issue thereon in the United States and all other countries throughout the world;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to said Assignee, its successors and assigns, my entire right, title and interest in and to said invention and in and to said application and all patents which may be granted therefor, and all future non-provisional applications including divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner for Patents to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to said Assignee, as assignee of my entire right, title and interest. I declare that I have not executed and will not execute any agreement in conflict herewith.

I also hereby sell and assign to Assignee, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including, but not limited to, the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

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IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year;

TITLE OF INVENTION	Self-Aligned Double Spacer Patterning Process			
SIGNATURE OF INVENTOR AND NAME	✓ <i>Tien-I Bao</i> Tien-I Bao	<i>Shau-Lin Shue</i> Shau-Lin Shue		
DATE	✓ 11/27/2013	✓ 11/27/2013		
RESIDENCE	Dayuan Township, Taiwan	Hsin-Chu, Taiwan,		