PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Min Hao Hong	08/24/2012
You-Hua Chou	08/24/2012
Chih-Tsung Lee	08/24/2012
Shiu-Ko JangJian	08/24/2012
Miao-Cheng Liao	08/24/2012
Hsiang Hsiang Ko	08/31/2012
Chen-Ming Huang	08/24/2012

RECEIVING PARTY DATA

Name:	Taiwan Semiconductor Manufacturing Company
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:	13594254

CH $40.00 13594254

CORRESPONDENCE DATA

Fax Number: 9727329218
Correspondence will be sent via US Mail when the fax attempt is unsuccessful.
Phone: 972-732-1001
Email: docketing@slater-matsil.com
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:	TSM12-0480
NAME OF SUBMITTER:	Sherry L. Colgrove

Total Attachments: 2
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ATTORNEY DOCKET NO.
TSM12-0480

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, the said application having been executed on the date set forth below; and

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd. (TSMC), 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, Taiwan 300-77, R.O.C., is desirous of acquiring my entire right, title and interest in and to the said invention, and to the 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 the said TSMC, its successors and assigns, my entire right, title and interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all 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 the said TSMC, 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 TSMC, 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 TSMC, 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 company, 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 TSMC, its successors, assigns and nominees 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	**Two-Step Shallow Trench Isolation (STI) Process**			
SIGNATURE OF INVENTOR AND NAME	Min-Hao Hong Min Hao Hong	You-Hua Chou You-Hua Chou	Chih-Tsung Lee Chih-Tsung Lee	Shiu-Ko JangJian Shiu-Ko JangJian
DATE	08/24/2012	Aug. 24. 2012	Aug/24/2012	08/24/2012
RESIDENCE (City, County, State)	Kaohsiung City, Taiwan, R.O.C.	Hsin-Chu, Taiwan, R.O.C.	Hsin-Chu, Taiwan, R.O.C.	Tainan City, Taiwan, R.O.C.

ATTORNEY DOCKET NO.
TSM12-0480

ASSIGNMENT

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WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd. (TSMC), 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, Taiwan 300-77, R.O.C., is desirous of acquiring my entire right, title and interest in and to the said invention, and to the 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 the said TSMC, its successors and assigns, my entire right, title and interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all 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 the said TSMC, 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 TSMC, 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 TSMC, 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 company, 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 TSMC, its successors, assigns and nominees 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	**Two-Step Shallow Trench Isolation (STI) Process**			
SIGNATURE OF INVENTOR AND NAME	Miao-Cheng Liao Miao-Cheng Liao	Hsiang Hsiang Ko Hsiang Hsiang Ko	Chen-Ming Huang Chen-Ming Huang	
DATE	8/24/2012	Aug, 31, 2012	Aug. 24, 2012	
RESIDENCE (City, County, State)	Yunlin, Taiwan, R.O.C.	Sinying City, Taiwan, R.O.C.	Hsinchu City, Taiwan, R.O.C.	