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PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT2580190

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MONSEN LIU	01/18/2013
LAI WEI CHIH	01/18/2013
CHUNG-HAO TSAI	01/18/2013
JENG-SHIEN HSIEH	01/18/2013
EN-HSIANG YEH	01/18/2013
CHUEI-TANG WANG	01/18/2013

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:	13691250	

CORRESPONDENCE DATA

Fax Number: (972)732-9218 972-732-1001 Phone:

Email: docketing@slater-matsil.com

Correspondence will be sent via US Mail when the email attempt is unsuccessful.

Correspondent Name: SLATER & MATSIL, L.L.P.

Address Line 1: 17950 PRESTON ROAD, SUITE 1000

DALLAS, TEXAS 75252 Address Line 4:

ATTORNEY DOCKET NUMBER: TSM12-0828

PATENT

REEL: 031418 FRAME: 0501

NAME OF SUBMITTER:	WENDY SAXBY	
Signature:	/Wendy Saxby/	
Date:	10/16/2013	
Total Attachments: 2 source=4346927#page1.tif source=4346927#page2.tif		

PATENT REEL: 031418 FRAME: 0502

ATTORNEY DOCKET NO. TSM12-0828

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	Embedding Low-K Materials in Antennas			
SIGNATURE OF INVENTOR AND NAME	Monsen Liu Monsen Liu	Lai Wei Chih Lai Wei Chih	Chung Hao Tsaí Chung-Hao Tsai	Jeng-Shien Hsieh Jeng-Shien Hsieh
DATE	01/18/2013	01/18/2013	01/18/2013	01/18/2013
RESIDENCE (City, County, State)	Zhudong Township, Taiwan	Hsin-Chu, Taiwan	Huatan Township, Taiwan	Kaohsiung, Taiwan

Assignment

ATTORNEY DOCKET NO. TSM12-0828

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	Embedding Low-K Materials in Antennas			
SIGNATURE OF INVENTOR AND NAME	En-Hsiang Yeh	Chuli-Tang W Chuei-Tang Wang	larg	
DATE	01/18/2013	01/18/2013		
RESIDENCE (City, County, State)	Hsin-Chu, Taiwan	Taichung City, Taiwan		,

Assignment

RECORDED: 10/16/2013