#### 502727452 03/18/2014

# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	٩	NEW ASSIGNMENT		
NATURE OF CONVEYANCE: ASSIGNMENT				
CONVEYING PARTY	DATA			
	Ν	ame	Execution Date	
MAO-HSUAN CHOU		03/12/2014		
JINN-YEH CHIEN		03/12/2014		
RECEIVING PARTY	ΑΤΑ			
Name:	Taiwan Semice	Taiwan Semiconductor Manufacturing Company, Ltd.		
Street Address:	No. 8, Li-Hsin	No. 8, Li-Hsin Rd. 6		
Internal Address:	Science-Based	Science-Based Industrial Park		
City:	Hsin-Chu	Hsin-Chu		
State/Country:	TAIWAN	TAIWAN		

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.	

## **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	14218637

### **CORRESPONDENCE DATA**

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(	912	1132-	921	0

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ATTORNEY DOCKET NUMBER:	TSM13-1372
NAME OF SUBMITTER:	JENNIFER RUBIO
SIGNATURE:	/Jennifer Rubio/
DATE SIGNED:	03/18/2014
Total Attachments: 1	

## source=TSM13-1372 Assignment as filed 2014-03-18#page1.tif

ATTORNEY DOCKET NO. TSM13-1372

#### 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 thereform, 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 1 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.

TITLE OF INVENTION	SYSTEM AND METHOD FOR A TIME-TO-DIGITAL CONVERTER		
SIGNATURE OF INVENTOR AND NAME	Mao- hsuan Chou Mao-Hsuan Chou	Jinn Jehl Chien Jinn-Yeh Chien	
DATE	2014. 7.12	2014.3.12	
RESIDENCE (City, County, State)	Xinfeng Township, Taiwan	Chu Bei City, Taiwan	

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

TSM13-1372

Assignment