06/02/2014 502834085

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SHIN-PUU JENG	04/14/2014
SHANG-YUN HOU	04/14/2014
KIM HONG CHEN	05/23/2014
WENSEN HUNG	04/14/2014
SZU-PO HUANG	04/14/2014

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 R.O.C.		

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	14249637	

CORRESPONDENCE DATA

Fax Number: (972)732-9218

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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:	TSM10-0099CP1
NAME OF SUBMITTER:	JENNIFER RUBIO
SIGNATURE:	/Jennifer Rubio/
DATE SIGNED:	06/02/2014

Total Attachments: 3

PATENT

REEL: 033011 FRAME: 0568 502834085

source=TSM10-0099CP1 Assignment as filed 2014-06-02#page1.tif source=TSM10-0099CP1 Assignment as filed 2014-06-02#page2.tif source=TSM10-0099CP1 Assignment as filed 2014-06-02#page3.tif

PATENT REEL: 033011 FRAME: 0569

ATTORNEY DOCKET NO. TSM10-0099CP1

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 TW, with its principal office at No. 8, Li-Hsin Rd. 6 Science-Based Industrial Park, Hsin-Chu 300-77, TW, 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	3D SEMICONDUCTOR PACKAGE INTERPOSER WITH DIE CAVITY			
SIGNATURE OF INVENTOR AND NAME	Shin-Puu Jeng	Slanz Ym Hou Shang-Yun Hou	Kim Hong Chen	Wensen Hung
DATE	4/14/2014	April 14, 2014		APRIL 14.2014
RESIDENCE	Ḥsin-Chu, TW	Jubei City, TW	Fremont, CA, US	Zhubei City, Taiwan

ATTORNEY DOCKET NO. TSM10-0099CP1

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 TW, with its principal office at No. 8, Li-Hsin Rd. 6 Science-Based Industrial Park, Hsin-Chu 300-77, TW, 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	3D SEMICONDUCTOR PACKAGE INTERPOSER WITH DIE CAVITY			
SIGNATURE OF INVENTOR AND NAME	Shin-Puu Jeng	Shang-Yun Hou	Claud Schul Kim Hong Chen	\ Wensen Hung
DATE			5/2/2014	
RESIDENCE	Hsin-Chu, TW	Jubei City, TW	Fremont, CA, US	Zhubei City, 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.

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	3D Semiconductor Package Interposer with Die Cavity			
SIGNATURE OF INVENTOR AND NAME	Szu-Po Huang			
DATE	April 14, 794			
RESIDENCE	Taichung City, Taiwan			

TSM10-0099CP1

RECORDED: 06/02/2014

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Assignment

PATENT REEL: 033011 FRAME: 0572