PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6478275

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the FOURTH INVENTOR'S NAME FROM SHOU-ZEN CHANG TO SHOU ZEN CHANG previously recorded on Reel 044397 Frame 0296. Assignor(s) hereby confirms the ASSIGNMENT.

CONVEYING PARTY DATA

Name	Execution Date
CHEN-HUA YU	08/15/2017
KAI-CHIANG WU	08/04/2017
CHUNG-SHI LIU	08/08/2017
SHOU ZEN CHANG	09/11/2017
CHAO-WEN SHIH	08/04/2017

RECEIVING PARTY DATA

Name:	Taiwan Semiconductor Manufacturing Co., Ltd.	
Street Address:	8, Li-Hsin Rd. 6, Hsinchu Science Park	
City:	Hsinchu	
State/Country:	TAIWAN	
Postal Code: 300-78		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15725677

CORRESPONDENCE DATA

Fax Number:(972)732-9218Correspondence 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@slatermatsil.com
Correspondent Name:	SLATER MATSIL, LLP
Address Line 1:	17950 PRESTON RD., SUITE 1000
Address Line 4:	DALLAS, TEXAS 75252

ATTORNEY DOCKET NUMBER:	TSMP20162006US01
NAME OF SUBMITTER:	JENNIFER RUBIO
SIGNATURE:	/Jennifer Rubio/
DATE SIGNED:	01/04/2021

Total Attachments: 4
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source=TSMP20162006US01 Corrected Assignment filed_2021-01-04#page2.tif
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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4734569

SUBMISSION TYPE: NEW ASSIG		NEW ASSIGNMENT	
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CONVEYING PARTY DA	ТА		
		Name	Execution Date
CHEN-HUA YU			08/15/2017
KAI-CHIANG WU			08/04/2017
CHUNG-SHI LIU			08/08/2017
SHOU-ZEN CHANG S	HOU Z	EN CHANG	09/11/2017
CHAO-WEN SHIH			08/04/2017
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ATTORNEY DOCKET NO. TSMP20162006US01

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 8, Li-Hsin Rd. 6 Hsinchu Science Park, Hsinchu 300-78 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 thereform, 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.

TITLE OF INVENTION	Integrated Devices in Semiconductor Packages and Methods of Forming Same		
SIGNATURE OF INVENTOR AND NAME	Chen-Hua Yu	Kas- <i>Chrang</i> Wu Kai-Chiang Wu	Chung Shi Liy
DATE	871511.7	2017 8.4	e/2/2017
RESIDENCE	Hsinchu, Taiwan	Hsin-Chu, Taiwan	Hsinchu, Taiwan

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

Page 1 of 2

Assignment

PATENT REEL: 054892 FRAME: 0583

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 8, Li-Hsin Rd. 6 Hsinchu Science Park, Hsinchu 300-78 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, releases, 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 caths, and generally do everything possible to aid said Assignee, its legal representatives, successors, its legal representatives, successors, and assigns, to obtain and enforce proper patent protection for said invention in all countries.

TITLE OF INVENTION	Integrated Devices	in Semiconductor Packages and Methods of Forming Same
SIGNATURE OF INVENTOR AND NAME	Shou Zen Chang	Char-Wen Shih Chao-Wen Shih
DATE		2017.8.4
RESIDENCE	Panchiao City, Taiwan	Zhubei City, Taiwan

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

Page 2 of 2

PATENT REEL: 054892 FRAME: 0584

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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 8, Li-Hsin Rd. 6 Hsinchu Science Park, Hsinchu 300-78 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, thereby 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 thereform, 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.

TITLE OF INVENTION	Integrated Devices in Semiconductor Packages and Methods of Forming Same		
SIGNATURE OF INVENTOR AND NAME	Shou-Zen Chan	9	
	Shou Zen Chang	Chao-Wen Shih	
DATE	11.09. 11		
RESIDENCE	Panchiao City, Taiwan	Zhubei City, Taiwan	

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

Page 2 of 2

Assignment