505304378 01/30/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHI-CHENG CHEN	01/04/2019
WEI-LI HUANG	01/04/2019
CHIEN-CHIH KUO	01/04/2019
HON-LIN HUANG	01/23/2019
CHIN-YU KU	01/10/2019
CHEN-SHIEN CHEN	01/15/2019

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
Street Address:	NO. 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:	16260599

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	0941-3838PUS2
NAME OF SUBMITTER:	CHRISTOPHER SMITH
SIGNATURE:	/Christopher Smith/
DATE SIGNED:	01/29/2019

Total Attachments: 2

PATENT REEL: 048191 FRAME: 0910

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PATENT REEL: 048191 FRAME: 0911 WITH MAGNETIC ELEMENT

ASSIGNMENT

WHEREAS, Chi-Cheng CHEN, Wei-Li HUANG, Chien-Chih KUO, Hon-Lin HUANG, Chin-Yu KU and Chen-Shien CHEN

hereafter referred to as ASSIGNOR, has/have invented certain new and useful improvements as described and set forth in the below identified application for United States Letters Patent:

Title: STRUCTURE AND FORMATION METHOD OF SEMICONDUCTOR DEVICE

Filed: January 29, 2019 Serial No. 16/260,599 Executed on: January 4, 2019; January 10, 2019; January 15, 2019; January 23, 2019

WHEREAS, <u>Taiwan Semiconductor Manufacturing Co., Ltd.</u>, of <u>No. 8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu 300-78, Taiwan R.O.C.</u>, hereinafter referred to as ASSIGNEE, is desirous of acquiring ASSIGNOR'S interest in the said invention and application and in any U.S. Letters Patent which may be granted on the same;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable consideration, receipt of which is hereby acknowledged by Assignor, Assignor has/have sold, assigned and transferred, and by these presents does/do sell, assign and transfer unto the said Assignee, and Assignee's successors and assigns, all his/her/their rights, title and interest in and to the said invention and application and all future improvements thereon, and in and to any Letters Patent which may hereafter be granted on the same in the United States, the said interest to be held and enjoyed by said Assignee as fully and exclusively as it would have been held and enjoyed by said Assignor had this Assignment and transfer not been made, to the full end and term of any Letters Patent which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignor further agrees/agree that he/she/they will, without charge to said Assignee, but at Assignee's expense, cooperate with Assignee in the prosecution of said application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as Assignee lawfully may request, to obtain or maintain Letters Patent for said invention and improvement, and to vest title thereto in said Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignor has/have signed his/her/their name(s) on the date(s) indicated.

ASSIGNMENT

2019/01/04	Chi-dwg Chen
Date	Name: Chi-Cheng CHEN
2019/01/04	Wor-Li Huggy
Date	Name: Wei-Li HUANG
2019.1.4	Chien-dock KUÜ
Date	Name: Chien-Chih KUO
24. 61.23	Han-Lik Hung
Date	Name: Hon-Lin HUANG
2019.1.10	
Date	Name: Chin-Yu K
2017. 1.15	Che Shier Chamber
Date	Name: Chen-Shien CHEN