PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHIH-HUNG HSIEH	06/12/2018
YU-MIN LIAO	06/12/2018
JHON-JHY LIAW	06/12/2018

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.	
Street Address:	NO. 8, LI-HSIN RD. 6, HSINCHU SCIENCE PARK	
City:	HSINCHU	
State/Country:	ntry: TAIWAN	
Postal Code:	300-78	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16008302

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	0941-3788PUS1	
NAME OF SUBMITTER:	THUY-KIM T. NGUYEN	
SIGNATURE:	/Thuy-Kim T. Nguyen/	
DATE SIGNED:	07/26/2018	

Total Attachments: 2

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ASSIGNMENT

WHEREAS, Chih-Hung HSIEH, Yu-Min LIAO and Jhon-Jhy LIAW	
hereafter referred to as ASSIGNOR, has/have invented certain new and useful improvements a	3.5
described and set forth in the below identified application for United States Letters Patent:	

nac. Shaw Sirectore	***************************************	
Filed:June 14, 2018	Serial No.	16/008,302
Executed on: July 12, 2018	***************************************	

WHEREAS, <u>Taiwan Semiconductor Manufacturing Co., Ltd.</u>, of <u>No. 8, Li-Hsin Rd. 6, Hsinchu Science Park</u>, <u>Hsinchu 300-78</u>, <u>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 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

Date Chih-Hung HSIEH.

Name: Chih-Hung HSIEH

2018/06/12 Yu-Min LIAO

Date Name: Yu-Min LIAO

20/8/6/12 Than Thy Liant Date Name: Jhon-Jhy LIAW

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RECORDED: 07/26/2018

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