PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YU-HUNG LIN	05/08/2020
AN-JHIH SU	05/08/2020
DER-CHYANG YEH	05/11/2020
SHIH-GUO SHEN	05/08/2020
CHIA-NAN YUAN	05/08/2020
MING-SHIH YEH	05/08/2020

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:	30078

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16924201

CORRESPONDENCE DATA

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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.

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ATTORNEY DOCKET NUMBER:	097195-US-PA
NAME OF SUBMITTER:	BELINDA LEE
SIGNATURE:	/Belinda Lee/
DATE SIGNED:	07/13/2020

Total Attachments: 4
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DECLARATION AND ASSIGNMENT

FOR UTILITY OR DESIGN PATENT APPLICATION

☒ Declaration Submitted With Initial Filing

OR

☐ Declaration Submitted After Initial Filing (surcharge 37 CFR 1.16(f) required)

(Title of the Invention)

SEMICONDUCTOR DEVICES AND METHODS OF MANUFACTURING THE SAME

As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:

This declaration is directed to:

☒ The attached application,

OR

☐ United States Application Number or PCT International application number

_______________Filed on __________________

The above-identified application was made or authorized to be made by me.

I believe I am the original inventor or an original joint inventor of a claimed invention in the application.

The undersigned hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

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DECLARATION AND ASSIGNMENT

FOR UTILITY OR DESIGN PATENT APPLICATION

WHEREAS, the undersigned has invented certain new and useful improvements described in the application identified.

WHEREAS, of 1. Taiwan Semiconductor Manufacturing Co., Ltd.
No.8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu, Taiwan 300-78,
R.O.C.

hereinafter referred to as ASSIGNEE, is desirous of acquiring the undersigned'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 the undersigned, the undersigned 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 rights, title and interest to be held and enjoyed by said Assignee as fully and exclusively as it would have been held and enjoyed by said the undersigned 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.

The undersigned 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.

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DECLARATION AND ASSIGNMENT

FOR UTILITY OR DESIGN PATENT APPLICATION

Signature: Yu-Hung Lin Date: 2020 / May-8

Legal Name of Sole or First Inventor: **Yu-Hung Lin**

Residence: Taichung City, Taiwan

Mailing Address: c/o No.8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu, Taiwan 300-78, R.O.C.

Signature: AJ Su Date: 2020/5/8

Legal Name of Additional Joint Inventor, if any: **An-Jhih Su**

Residence: Taoyuan City, Taiwan

Mailing Address: c/o No.8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu, Taiwan 300-78, R.O.C.

Signature: Date: 2020/5/11

Legal Name of Additional Joint Inventor, if any: **Der-Chyang Yeh**

Residence: Hsin-Chu, Taiwan

Mailing Address: c/o No.8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu, Taiwan 300-78, R.O.C.

Signature: Shih-Guo Shen Date: 2020 / May-8

Legal Name of Additional Joint Inventor, if any: **Shih-Guo Shen**

Residence: New Taipei City, Taiwan

Mailing Address: c/o No.8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu, Taiwan 300-78, R.O.C.

Signature: Chia-Nan Yuan Date: 2020 / May-8

Legal Name of Additional Joint Inventor, if any: **Chia-Nan Yuan**

Residence: Hsinchu, Taiwan

Mailing Address: c/o No.8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu, Taiwan 300-78, R.O.C.

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DECLARATION AND ASSIGNMENT

FOR UTILITY OR DESIGN PATENT APPLICATION

Signature:______________________________Date: 2020/May/08

Legal Name of Additional Joint Inventor, if any: **Ming-Shih Yeh**

Residence: Hsinchu County, Taiwan

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