

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT6059311

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
PEI-YU CHOU	03/03/2020
JR-HUNG LI	03/03/2020
LIANG-YIN CHEN	03/03/2020
SU-HAO LIU	03/03/2020
TZE-LIANG LEE	03/03/2020
MENG-HAN CHOU	03/03/2020
KUO-JU CHEN	03/03/2020
HUICHENG CHANG	03/05/2020
TSAI-JUNG HO	03/03/2020
TZU-YANG HO	03/03/2020
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
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<b>City:</b>	HSINCHU
<b>State/Country:</b>	TAIWAN
<b>Postal Code:</b>	300-78
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16805834
<b>CORRESPONDENCE DATA</b>	
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<b>ATTORNEY DOCKET NUMBER:</b>	091935-US-PA

<b>NAME OF SUBMITTER:</b>	BELINDA LEE
<b>SIGNATURE:</b>	/Belinda Lee/
<b>DATE SIGNED:</b>	04/13/2020
<b>Total Attachments: 4</b> source=091935_del-assn#page1.tif source=091935_del-assn#page2.tif source=091935_del-assn#page3.tif source=091935_del-assn#page4.tif	

**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 DEVICE AND METHODS OF FORMING 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.

**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,** 1. Taiwan Semiconductor Manufacturing Co., Ltd.  
of 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: Pei-Yu Chou Date: 2020.3.3

Legal Name of Sole or First Inventor: **Pei-Yu Chou** ✓

Residence: Hsinchu County, Taiwan ✓

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

Signature: Jr-Hung Li Date: 2020.3.3

Legal Name of Additional Joint Inventor, if any: **Jr-Hung Li** ✓

Residence: Hsinchu County, Taiwan ✓

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

Signature: Liang-Yin Chen Date: 2020.3.3

Legal Name of Additional Joint Inventor, if any: **Liang-Yin Chen** ✓

Residence: Hsinchu City, Taiwan ✓

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

Signature: Su-Hao Liu Date: 2020.3.3

Legal Name of Additional Joint Inventor, if any: **Su-Hao Liu** ✓

Residence: Chiayi County, Taiwan ✓

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

Signature: Tze-Liang Lee Date: 2020.3.3

Legal Name of Additional Joint Inventor, if any: **Tze-Liang Lee** ✓

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: Meng-Han Chau Date: 2020/03/03

Legal Name of Additional Joint Inventor, if any: **Meng-Han Chau** ✓

Residence: Hsinchu, Taiwan ✓

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

Signature: Kuo-Ju Chen Date: 2020/03/03

Legal Name of Additional Joint Inventor, if any: **Kuo-Ju Chen** ✓

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: Huicheng Chang Date: 3/15/2020

Legal Name of Additional Joint Inventor, if any: **Huicheng Chang** ✓

Residence: Tainan City, Taiwan ✓

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

Signature: Tsai-Jung Ho Date: 2020/3/3

Legal Name of Additional Joint Inventor, if any: **Tsai-Jung Ho** ✓

Residence: Changhua County, Taiwan ✓

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

Signature: Tzu-Yang Ho Date: 2020/3/3

Legal Name of Additional Joint Inventor, if any: **Tzu-Yang Ho** ✓

Residence: Hsinchu, Taiwan ✓

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