### 506248231 09/11/2020

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6294976

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the EXECUTION DATE OF THE FOURTH INVENTOR previously recorded on Reel 052317 Frame 0776. Assignor(s) hereby confirms the ASSIGNMENT.

#### **CONVEYING PARTY DATA**

Name	Execution Date
SHINN-SHENG YU	08/20/2019
CHIN-HSIANG LIN	08/20/2019
HSU-TING HUANG	08/20/2019
RU-GUN LIU	10/12/2019
SHUO-YEN CHOU	08/20/2019
MINFENG CHEN	08/20/2019
KENJI YAMAZOE	08/27/2019

#### **RECEIVING PARTY DATA**

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

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16525510

#### **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: 095714-0674

NAME OF SUBMITTER: BRIAN ROBERTS

506248231 REEL: 053756 FRAME: 0265

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SIGNATURE:	/BRIAN ROBERTS/
DATE SIGNED:	09/11/2020
Total Attachments: 7	
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PATENT REEL: 053756 FRAME: 0266 Assignment Page 1 of 2

#### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
SHINN-SHENG YU	08/20/2019
CHIN-HSIANG LIN	08/20/2019
HSU-TING HUANG	08/20/2019
RU-GUN LIU	10/01/2019 10/12/2019
SHUO-YEN CHOU	08/20/2019
MINFENG CHEN	08/20/2019
KENJI YAMAZOE	08/27/2019

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Application Number:	16525510

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that is unsuccessful, it will be sent via US Mail.

Correspondent Name: MCDERMOTT WILL & EMERY LLP
Address Line 1: THE MCDERMOTT BUILDING
Address Line 2: 500 NORTH CAPITOL STREET
Address Line 4: WASHINGTON, D.C. 20001

ATTORNEY DOCKET NUMBER:	095714-0674
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Assignment Page 2 of 2

NAME OF SUBMITTE		BRIAN ROBERTS
Signature:		/BRIAN ROBERTS/
Date:		04/06/2020
Total Attachments: 5 source=Executed Declaration_095714-0674#page1.tif source=Executed Declaration_095714-0674#page2.tif source=Executed Declaration_095714-0674#page3.tif source=Executed Declaration_095714-0674#page4.tif source=Executed Declaration_095714-0674#page5.tif		
RECEIPT INFORMATION		
<b>EPAS ID:</b> PAT6047692 <b>Receipt Date:</b> 04/06/2020		

769

Attorney Docket No. 095714-0674 (P20181500US00)

M-23891-6-43-83

## COMBINED DECLARATION AND ASSIGNMENT FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

I believe I am the original or an original joint inventor of a claimed invention in the application for which a patent is sought on the invention entitled:

# METHOD OF MANUFACTURING A SEMICONDUCTOR DEVICE AND APPARATUS FOR MANUFACTURING THE SEMICONDUCTOR DEVICE

wnie	in application is:
$\boxtimes$	attached, 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.
time auth asso	te event that the filing date and/or application number are not entered above at the I execute this document, and if such information is deemed necessary, I hereby orize and request the registered practitioners of McDermott Will & Emery LLP, ciated with the Customer Number 20277, to insert above the filing date and/or ication number of the application.
	reby acknowledge that any willful false statement made in this declaration is shable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, oth.

#### ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I hereby assign to

# TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD. No. 8, Li-Hsin Rd. 6, Science Based Industrial Park, Hsinchu, Taiwan 300

(hereinafter designated as the Assignee), the entire (100%) right, title and interest for the United States as defined in 35 USC §100, in the invention described in the application identified in this document.

I hereby confirm any prior assignment to Assignee, and to the extent that I have not already done so, agree to assign, and hereby do, sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the inventions as described in the aforesaid application, to the aforesaid application itself, and all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application, and any United States or foreign Letters Patent, utility model, or other similar rights which may be granted thereon, including reissues, reexaminations and extensions thereof, and all copyright rights throughout the world in the aforesaid application and the subject matter disclosed therein, these rights, title and interest to be held and enjoyed by Assignee to the full end of the term for which the Letters Patent, utility model, or other similar rights, are granted and any extensions thereof as fully and entirely as the same would have been held by the undersigned had this assignment and sale not been made, and the right to sue for, and recover for past infringements of, or liabilities for, any of the rights relating to any of the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights;

I hereby covenant and agree to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-examination, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee without further or other compensation than that above set forth;

I hereby covenant that no assignment, sale, license, agreement or encumbrance has been or will be entered into which would conflict with this Assignment.

Page 2 of 3

## Attorney Docket No. 095714-0674 (P20181500US00)

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Legal name of inventor	
Shinn-Sheng YU	
Inventor's signature	Date
08 08 000	3 12 18 20
Shinn Shing Upe	2019,08.20
Legal name of inventor	
Chin-Hsiang LIN	
Inventor's signature	Date
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Legal name of inventor	
Hsu-Ting HUANG	
Inventor's signature	Date
How-ting Huang	2019.8.20
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Legal name of inventor	
Ru-Gun LIU	
Inventor's signature	Date
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Legal name of inventor	
Shuo-Yen CHOU	
Inventor's signature	Date
26-0-11, 00	2019.8.20
Shwo-yen Chim	1 6 8 6 8 8 8 8
Legal name of inventor	
Minfeng CHEN	
Inventor's signature	Date
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Legal name of inventor	
Kenji YAMAZOE	To case
Inventor's signature	Date

### Attorney Docket No. 095714-0674 (P20181500US00)

Legal name of inventor Shinn-Sheng YU	
Inventor's signature	Date

Legal name of inventor Chin-Hsiang LIN	
Inventor's signature	Date

Legal name of inventor Hsu-Ting HUANG		
Inventor's signature	Date	

Legal name of inventor	
Ru-Gun LIU	
Inventor's signature	Date
Ru-Gun Lin	1= Oct. 2019

## Attorney Docket No. 095714-0674 (P20181500US00)

Legal name of inventor Shinn-Sheng YU	
Inventor's signature	Date
Legal name of inventor Chin-Hsiang LIN	
Inventor's signature	Date
Legal name of inventor  HSu-Ting HUANG	
Inventor's signature	Date
Legal name of inventor Ru-Gun LIU	
Inventor's signature	Date
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	]
Legal name of inventor Shuo-Yen CHOU	
Inventor's signature	Date
Legal name of inventor	
Minfeng CHEN	Data
Inventor's signature	Date
Legal name of inventor  Kenji YAMAZOE	
Inventor's signature	Date
Jen Jama	10e) 8/27/2019

Page 3 of 3