

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT8353341

<b>SUBMISSION TYPE:</b>	CORRECTIVE ASSIGNMENT										
<b>NATURE OF CONVEYANCE:</b>	Corrective Assignment to correct the FIRST NAME OF THE FIRST INVENTOR AND THE NAME OF THE RECEIVING PARTY previously recorded on Reel 055249 Frame 0844. Assignor(s) hereby confirms the ASSIGNMENT.										
<b>CONVEYING PARTY DATA</b>											
<table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>CHIN-TA CHEN</td><td>12/27/2023</td></tr><tr><td>HUA-TAI LIN</td><td>07/31/2020</td></tr><tr><td>HAN-WEI WU</td><td>07/30/2020</td></tr><tr><td>JIANN-YUAN HUANG</td><td>07/31/2020</td></tr></tbody></table>	Name	Execution Date	CHIN-TA CHEN	12/27/2023	HUA-TAI LIN	07/31/2020	HAN-WEI WU	07/30/2020	JIANN-YUAN HUANG	07/31/2020	
Name	Execution Date										
CHIN-TA CHEN	12/27/2023										
HUA-TAI LIN	07/31/2020										
HAN-WEI WU	07/30/2020										
JIANN-YUAN HUANG	07/31/2020										
<b>RECEIVING PARTY DATA</b>											
<b>Name:</b>	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.										
<b>Street Address:</b>	NO.8, LI-HSIN RD. 6, SCIENCE BASED INDUSTRIAL PARK										
<b>City:</b>	HSINCHU										
<b>State/Country:</b>	TAIWAN										
<b>Postal Code:</b>	300										
<b>PROPERTY NUMBERS Total: 1</b>											
<table border="1"><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody><tr><td>Application Number:</td><td>17175366</td></tr></tbody></table>	Property Type	Number	Application Number:	17175366							
Property Type	Number										
Application Number:	17175366										
<b>CORRESPONDENCE DATA</b>											
<b>Fax Number:</b>	(703)390-1277										
<i>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.</i>											
<b>Phone:</b>	(703)390-9051										
<b>Email:</b>	info@sbpatentlaw.com, brenda.pugh@sbpatentlaw.com										
<b>Correspondent Name:</b>	STUDEBAKER & BRACKETT PC										
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<b>Address Line 2:</b>	SUITE 300										
<b>Address Line 4:</b>	TYSONS, VIRGINIA 22102										
<b>ATTORNEY DOCKET NUMBER:</b>	950000-001132										
<b>NAME OF SUBMITTER:</b>	BRENDA PUGH										
<b>SIGNATURE:</b>	/Brenda Pugh/										
<b>DATE SIGNED:</b>	12/28/2023										

**Total Attachments: 6**

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## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT6550995

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
JIN-DAH CHEN	07/30/2020
HUA-TAI LIN	07/31/2020
HAN-WEI WU	07/30/2020
JIANN-YUAN HUANG	07/31/2020
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
<b>Street Address:</b>	NO.8, LI-HSIN RD. 6, SCIENCE BASED INDUSTRIAL PARK
<b>City:</b>	HSINCHU
<b>State/Country:</b>	TAIWAN
<b>Postal Code:</b>	300
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	17175366
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(202)756-8087
<i>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.</i>	
<b>Phone:</b>	202-756-8000
<b>Email:</b>	lcruz@mwe.com, ipdocketmwe@mwe.com, WDCIPPTSClerks@mwe.com
<b>Correspondent Name:</b>	MCDERMOTT WILL & EMERY LLP
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<b>Address Line 2:</b>	500 NORTH CAPITOL STREET, N.W.
<b>Address Line 4:</b>	WASHINGTON, D.C. 20001
<b>ATTORNEY DOCKET NUMBER:</b>	095714-1143
<b>NAME OF SUBMITTER:</b>	LYNN CRUZ
<b>SIGNATURE:</b>	/LYNN CRUZ/
<b>DATE SIGNED:</b>	02/12/2021
<b>Total Attachments: 3</b>	
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**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 SEMICONDUCTOR DEVICES**

which application is:

☒ 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.

In the event that the filing date and/or application number are not entered above at the time I execute this document, and if such information is deemed necessary, I hereby authorize and request the registered practitioners of **McDermott Will & Emery LLP**, associated with the Customer Number **20277**, to insert above the filing date and/or application number of the application.

I 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.

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.

Legal name of inventor <b>Jin-Dah CHEN</b>	
Inventor's signature <i>Jin-Dah CHEN</i>	Date 2020.7.30

Legal name of inventor <b>Hua-Tai LIN</b>	
Inventor's signature <i>Hua-Tai Lin</i>	Date 2020.7.31

Legal name of inventor <b>Han-Wei WU</b>	
Inventor's signature <i>Han-Wei Wu</i>	Date 2020.7.30

Legal name of inventor <b>Jiann-Yuan HUANG</b>	
Inventor's signature <i>Jiann-Yuan Huang</i>	Date 2020.7.31

## DECLARATION AND ASSIGNMENT

Title of Invention: METHOD OF MANUFACTURING SEMINCONDUCTOR DEVICES

As a below named inventor, or one of the below named joint inventors, I hereby declare that:

This declaration and assignment is directed to the application attached hereto. If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above and/or the following:

United States Application No. or PCT International Application No.: 17/175,366, filed on February 12, 2021

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

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

I have reviewed and understand the contents of the above-identified application, including the claims.

I am aware of the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in 37 C.F.R. §1.56.

All statements made of my own knowledge are true and all statements made on information and belief are believed to be true.

I hereby acknowledge that any willful false statement made in this declaration may jeopardize the validity of the application or any patent issuing thereon and is punishable under 18 U.S.C. §1001 by fine or imprisonment of not more than five (5) years, or both.

The above-identified invention shall henceforth be referred to herein as the "INVENTION" and the above-identified application shall henceforth be referred to herein as the "APPLICATION."

**Taiwan Semiconductor Manufacturing Company, Ltd.**, a corporation organized and existing under the laws of Taiwan, with its principal office at 8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu, 300-78, Taiwan and its heirs, successors, legal representatives and assigns shall henceforth be referred to collectively herein as ASSIGNEE.

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I have assigned and do hereby assign to ASSIGNEE, its successors and assigns, my entire right, title and interest in and to said INVENTION and in and to said APPLICATION and all patents which may be granted therefor, and all future non-provisional applications including, but not limited to, divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner for Patents to issue all patents for said INVENTION, or patents resulting therefrom, insofar as my interest is concerned, to ASSIGNEE, as assignee of my entire right, title and interest. I declare that I have not executed and will not execute any agreement in conflict herewith.

Additionally, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I have also assigned and hereby assign to ASSIGNEE, its successors and assigns, all of my rights to the INVENTION disclosed in said APPLICATION, in all countries of the world, including, but not limited to, the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and I further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such rights.

I hereby further agree that I will communicate to ASSIGNEE, or to its successors, assigns, and legal representatives, any facts known to me respecting said INVENTION or the file history thereof, and at the expense of ASSIGNEE, its legal representatives, successors, or assigns, will testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid ASSIGNEE, its legal representatives, successors, and assigns, to obtain and enforce proper patent protection for said invention in all countries.

I hereby grant the attorney of record the power to insert on this document any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office or other authority for recordation of this document.

IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year.

NAME OF INVENTOR (Full Legal Name): Chin-Ta CHEN

Signature: / Chin-Ta CHEN /

Date: 12/27/2023