

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7929459

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT						
NATURE OF CONVEYANCE:	Corrective Assignment to correct the ATTORNEY DOCKET NO previously recorded on Reel 059961 Frame 0354. Assignor(s) hereby confirms the ASSIGNMENT.						
CONVEYING PARTY DATA							
<table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>JOANNA CHAW YANE YIN</td><td>03/02/2018</td></tr><tr><td>HUA FENG CHEN</td><td>03/02/2018</td></tr></tbody></table>	Name	Execution Date	JOANNA CHAW YANE YIN	03/02/2018	HUA FENG CHEN	03/02/2018	
Name	Execution Date						
JOANNA CHAW YANE YIN	03/02/2018						
HUA FENG CHEN	03/02/2018						
RECEIVING PARTY DATA							
Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.						
Street Address:	8, LI-HSIN RD. 6						
Internal Address:	HSINCHU SCIENCE PARK						
City:	HSINCHU						
State/Country:	TAIWAN						
Postal Code:	300-78						
PROPERTY NUMBERS Total: 1							
<table border="1"><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody><tr><td>Application Number:</td><td>17664129</td></tr></tbody></table>	Property Type	Number	Application Number:	17664129			
Property Type	Number						
Application Number:	17664129						
CORRESPONDENCE DATA							
Fax Number:	(214)200-0853						
<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>							
Phone:	214-651-5000						
Email:	ipdocketing@haynesboone.com						
Correspondent Name:	HAYNES AND BOONE, LLP IP SECTION						
Address Line 1:	2323 VICTORY AVENUE						
Address Line 2:	SUITE 700						
Address Line 4:	DALLAS, TEXAS 75219						
ATTORNEY DOCKET NUMBER:	20162117 / 24061.3530US04						
NAME OF SUBMITTER:	JANIE MARTINEZ-HOLM						
SIGNATURE:	/Janie Martinez-Holm/						
DATE SIGNED:	05/01/2023						
Total Attachments: 6							
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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
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EPAS ID: PAT7339840

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	JOANNA CHAW YANE YIN	03/02/2018
	HUA FENG CHEN	03/02/2018
RECEIVING PARTY DATA		
Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.	
Street Address:	8, LI-HSIN RD. 6	
Internal Address:	HSINCHU SCIENCE PARK	
City:	HSINCHU	
State/Country:	TAIWAN	
Postal Code:	300-78	
PROPERTY NUMBERS Total: 1		
Property Type	Number	
Application Number:	17664129	
CORRESPONDENCE DATA		
Fax Number:	(214)200-0853	
<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>		
Phone:	214-651-5000	
Email:	ipdocketing@haynesboone.com	
Correspondent Name:	HAYNES AND BOONE, LLP IP SECTION	
Address Line 1:	2323 VICTORY AVENUE	
Address Line 2:	SUITE 700	
Address Line 4:	DALLAS, TEXAS 75219	
ATTORNEY DOCKET NUMBER:	2162117 / 24061.3530US04 20162117 / 24061.3530US04	
NAME OF SUBMITTER:	JANIE MARTINEZ-HOLM	
SIGNATURE:	/Janie Martinez-Holm/	
DATE SIGNED:	05/19/2022	
Total Attachments: 2		
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ASSIGNMENT

WHEREAS, we,

- (1) Joanna Chaw Yane Yin of Hsinchu, Taiwan [R.O.C.]
- (2) Hua Feng Chen of Hsinchu City [R.O.C.]

have invented certain improvements in

SEMICONDUCTOR DEVICE HAVING A LINER LAYER WITH A CONFIGURED PROFILE AND METHOD OF FABRICATING THEREOF

for which we have executed an application for Letters Patent of the United States of America on February 27, 2018, as U.S. Serial No. 15/906,092; and

WHEREAS, we authorize the attorney of record to update this document to include Patent Office information as deemed necessary (i.e., filing date, serial number, etc.);

WHEREAS, Taiwan Semiconductor Manufacturing Co., Ltd., ("TSMC"), 8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu, Taiwan 300-78, Republic of China, is desirous of obtaining the entire right, title, and interest in, to and under the said invention and the said application in the United States of America and in any and all countries foreign thereto;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and other good and valuable consideration, we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said TSMC, its successors, legal representatives, and assigns, the entire right, title, and interest in, to and under the said invention, and the said application, and all divisional, renewal, substitutional, and continuing applications thereof, and all Letters Patent of the United States of America which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may be filed for said invention in any country or countries foreign to the United States of America, and all extensions, renewals, and reissues thereof, and all prior patents and patent applications from which a filing priority of the above-described patent application may be obtained, including the right to collect past damages; and we hereby authorize and request the Commissioner of Patents of the United States of America, and any official of any country or countries foreign to the United States of America, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said invention to the said TSMC, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

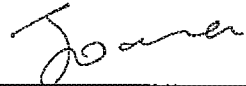
AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to said TSMC, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, renewal, substitutional, continuing, and reissue applications, make all rightful declarations and/or oaths and generally do everything possible to aid the said TSMC, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

Inventor Name: **Joanna Chaw Yane Yin**

Residence Address: No. 168, Science Park 2nd Road, Hsinchu, Taiwan 308, [R.O.C.]

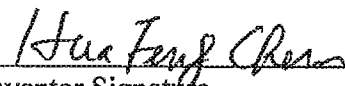
Dated: 2019 - MAR - 2


Inventor Signature


Inventor Name: **Hua Feng Chen**

Residence Address: 6F, No. 12, Ln. 19, Guanxin Rd, East Dist., Hsinchu City 300, Taiwan [R.O.C.]

Dated: 2018/3/2


Inventor Signature
