505889652 01/29/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5936353

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JUI-LIN CHEN	12/27/2019
CHAO-YUAN CHANG	12/27/2019
PING-WEI WANG	12/27/2019
FU-KAI YANG	12/27/2019
TING FANG	12/30/2019
I-WEN WU	12/27/2019
SHIH-HAO LIN	12/27/2019

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:	16776205

CORRESPONDENCE DATA

Fax Number: (214)200-0853

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.

Phone: 214-651-5000

Email: ipdocketing@haynesboone.com

Correspondent Name: HAYNES AND BOONE, LLP (24061) IP SECTION

Address Line 1: 2323 VICTORY AVENUE

Address Line 2: SUITE 700

Address Line 4: DALLAS, TEXAS 75219

ATTORNEY DOCKET NUMBER:	2019-2125/24061.4059US01	
NAME OF SUBMITTER:	MARCY OGADO	
SIGNATURE:	/Marcy Ogado/	

505889652 PATENT REEL: 051662 FRAME: 0791

DATE SIGNED: 01/29/2020

Total Attachments: 3
source=4059US01_Assignment#page1.tif
source=4059US01_Assignment#page2.tif
source=4059US01_Assignment#page3.tif

PATENT REEL: 051662 FRAME: 0792 Docket No.: P20192125US00/24061.4059US01 Customer No.: 000042717

ASSIGNMENT

WHEREAS, we,

(1)	Jui-Lin Chen	of	Taipei City, Taiwan (R.O.C.)
(2)	Chao-Yuan Chang	of	New Taipei City, Taiwan (R.O.C.)
(3)	Ping-Wei Wang	of	Hsin-Chu, Taiwan (R.O.C.)
(4)	Fu-Kai Yang	of	Hsinchu City, Taiwan (R.O.C.)
(5)	Ting Fang	of	Kaohsiung City, Taiwan (R.O.C.)
(6)	I-Wen Wu	of	Hsinchu City, Taiwan (R.O.C.)
(7)	Shih-Hao Lin	of	Hsinchu, Taiwan (R.O.C.)

have invented certain improvements in

SOURCE/DRAIN CONTACT HAVING A PROTRUDING SEGMENT

for which we have	executed an ap	pplication for Letters Patent of the United	States of America,
X	of even date filed on	filed herewith; and and assigned application number	; and
		orney of record to update this document t (i.e., filing date, serial number, etc.);	to include Patent Offic

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.

-] -

Docket No.: P20192125US00/24061.4059US01

Customer No.: 000042717

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:	Jui-Lin Chen	
Residence Address:	Taipei City, Taiwan (R.O.C.)	
Dated:[¹² /2-7/20/9		Juilin Chen Inventor Signature
Inventor Name:	Chao-Yuan Chang	
Residence Address:	New Taipei City, Taiwan (R.O.	e .)
Dated: 12/27/2	<u>019</u>	Chao-Yuan Chang Inventor Signature
Inventor Name:	Ping-Wei Wang	
Residence Address:	Hsin-Chu, Taiwan (R.O.C.)	
Dated: (2/27)	(2019)	Ry We Way Inventor Signature
Inventor Name:	Fu-Kai Yang	
Residence Address:	Hsinchu City, Taiwan (R.O.C.)	
Dated: 12/2'7	Variante de la companya della companya della companya de la companya de la companya della compan	Inventor Signature
	7 7 ° 17	,

Docket No.: P20192125US00/24061.4059US01

Customer No.: 000042717

Inventor Name:

Ting Fang

Residence Address:

Kaohsiung City, Taiwan (R.O.C.)

Dated: 2019 17 30

Inventor Signature

Inventor Name:

I-Wen Wu

Residence Address:

Hsinchu City, Taiwan (R.O.C.)

Dated: 2019.12.25

Inventor Signature

Inventor Name:

Shih-Hao Lin

Residence Address:

Hsinchu, Taiwan (R.O.C.)

- 3 -

RECORDED: 01/29/2020