507294242 05/20/2022

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HSIU-WEN HSUEH	04/21/2020
CAI-LING WU	04/21/2020
YA-CHING TSENG	04/21/2020
CHII-PING CHEN	04/21/2020
NENG-JYE YANG	04/21/2020

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:	17749303

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: 2019-2370/24061.4050US02	
NAME OF SUBMITTER:	LINDA INGRAM
SIGNATURE:	/Linda Ingram/
DATE SIGNED:	05/20/2022

PATENT 507294242 REEL: 059968 FRAME: 0123

Total Attachments: 3

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PATENT REEL: 059968 FRAME: 0124

Docket No.: P20192370US00/24061.4050US01 Customer No.: 42717

ASSIGNMENT

WHEREAS, we,

(1)	Hsiu-Wen Hsueh	of	Taichung City, Taiwan (R.O.C.)
(2)	Cai-Ling Wu	of	Hsinchu, Taiwan, (R.O.C.)
(3)	Ya-Ching Tseng	of	Hsinchu, Taiwan (R.O.C.)
(4)	Chii-Ping Chen	of	Hsinchu City, Taiwan, (R.O.C.)
(5)	Neng-Jve Yang	of	Hsinchu City, Taiwan (R.O.C.)

have invented certain improvements in

SELF-ALIGNED SCHEME FOR SEMICONDUCTOR DEVICE AND METHOD OF FORMING THE SAME

for which we hav	e executed an application for Letters Patent of the United States of America,
_X	of even date filed herewith; and filed on and assigned application number; 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.

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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:	Hsiu-Wen Hsueh		
Residence Address:	No.6, Ln. 53, Chongde 6th Rd., Taichung City 406, Taiwan, (R.		
Dated: 2026, 4	` ~ \	Histor Signature	Hsueh
Inventor Name:	Cai-Ling Wu		
Residence Address:	8, Li-Hsin Rd. 6, Hsinchu Scier Hsinchu, Taiwan, 300-78 (R.O.		
Dated: 2020, 속	(2)	(x1 - Ving Inventor Signature	Ww
Inventor Name:	Ya-Ching Tseng		
Residence Address:	8, Li-Hsin Rd. 6, Hsinchu Scier Hsinchu, Taiwan, 300-78 (R.O.		
Dated: 10 10 . Y	1	Ya - Ohing Inventor Signature	1 Tseng

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Inventor Name:

Chii-Ping Chen

Residence Address:

2F., No.58, Jianzhong Rd., East Dist. Hsinchu City 300, Taiwan (R.O.C.)

Dated:

2020, 4, 2/

Inventor Signature

Inventor Name:

Neng-Jye Yang

Residence Address:

No.20, Aly. 2, Ln. 384, Sec. 1, Zhonghua Rd., East Dist.

Hsinchu City, Taiwan, 300, (R.O.C.)

Dated: \rightarrow \rightarrow \leftarrow \leftarrow \rightarrow

Nend-Tye Kang Inventor Signature

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