PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6883987

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
LI-ZHEN YU	05/24/2019
JIA-CHUAN YOU	05/24/2019
CHIA-HAO CHANG	05/24/2019
TIEN-LU LIN	05/24/2019

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State/Country:	TAIWAN
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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17412032

CORRESPONDENCE DATA

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Total Attachments, 2	
DATE SIGNED:	08/25/2021
SIGNATURE:	/Linda Ingram/
NAME OF SUBMITTER:	LINDA INGRAM
ATTORNEY DOCKET NUMBER:	2018-2686/24061.3831US02

Total Attachments: 3

PATENT REEL: 057317 FRAME: 0437 source=3831US02_Assignments#page1.tif source=3831US02_Assignments#page2.tif source=3831US02_Assignments#page3.tif

> PATENT REEL: 057317 FRAME: 0438



Docket No.: P20182686US00/24061.3831US01 Customer No.: 000042717

ASSIGNMENT

WHEREAS, we,

(1)	Li-Zhen Yu	of	Hsinchu, Taiwan (R.O.C.)
(2)	Jia-Chuan You	of	Taoyuan County, Taiwan (R.O.C.)
(3)	Chia-Hao Chang	of	Hsinchu City, Taiwan (R.O.C.)
(4)	Tien-Lu Lin	of	Hsinchu City, Taiwan (R.O.C.)
(5)	Yu-Ming Lin	of	Hsinchu City, Taiwan (R.O.C.)
(6)	Chih-Hao Wang	of	Hsinchu County, Taiwan (R.O.C.)

have invented certain improvements in

METHODS OF FORMING CONTACT FEATURES IN FIELD-EFFECT TRANSISTORS

for which we have executed an application for Letters Patent of the United States of America,

X of even date filed herewith; and filed on 07-17-2019 and assigned application number 16/514,736; 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: Residence Address:	Li-Zhen Yu Hsinchu, Taiwan (R.O.C.)	
Dated: > (9 / 5	<u>/ </u>	La Zhan Yn Inventor Signature
Inventor Name: Residence Address:	Jia-Chuan You Taoyuan County, Taiwan (R.O.	C.)
Dated: <u>5019 / 5</u>	124	Tro - Chac You Inventor Signature
Inventor Name: Residence Address: Dated: >0/9/{	Chia-Hao Chang Hsinchu City, Taiwan (R.O.C.)	Ma-Hao Chang Inventor Signature
Inventor Name: Residence Address: Dated: つの イタ	Tien-Lu Lin Hsinchu City, Taiwan (R.O.C.)	Ten Li Lin Inventor Signature

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Customer No.: 000042717

Inventor Name:

Yu-Ming Lin

Residence Address:

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

Dated: 5

Inventor Signature

Inventor Name:

Chih-Hao Wang

Residence Address:

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

Dated: S

Inventor Signature

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