505177480 11/06/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHENG-YU YANG	08/29/2017
CHIA-TA YU	08/29/2017
KAI-HSUAN LEE	08/29/2017
SAI-HOOI YEONG	08/29/2017
FENG-CHENG YANG	08/29/2017

RECEIVING PARTY DATA

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State/Country:	TAIWAN
Postal Code:	300-78

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16181847

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ATTORNEY DOCKET NUMBER:	2016-1062/24061.3569US02	
NAME OF SUBMITTER:	YILUN WANG	
SIGNATURE:	/Yilun Wang/	
DATE SIGNED:	11/06/2018	

PATENT 505177480 REEL: 047423 FRAME: 0612

Total Attachments: 3

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PATENT REEL: 047423 FRAME: 0613

Docket No.: P20161062US00/24061.3569US01

Customer No.: 42717

ASSIGNMENT

WHEREAS, we,

(1)	Cheng-Yu Yang	of	Changhua County, Taiwan, Republic of China
(2)	Chia-Ta Yu	of	Hsinchu, Taiwan, Republic of China
(3)	Kai-Hsuan Lee	of	Hsinchu City, Taiwan, Republic of China
(4)	Sai-Hooi Yeong	of	Hsinchu County, Taiwan, Republic of China
(5)	Feng-Cheng Yang	of	Hsinchu County, Taiwan, Republic of China

have invented certain improvements in

WRAPPED-AROUND EPITAXIAL STRUCTURE AND METHOD

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

	of even date filed herewith; and
X	filed on <u>08-28-2017</u> and assigned application number <u>15/688,274</u> ; 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.

Docket No.: P20161062US00/24061.3569US01

Customer No.: 42717

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.

Tariantan	Niamaa.
Inventor	Name:

Cheng-Yu Yang

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Dated: 08-29 - 2017

Inventor Signature

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Dated: D. 29 . 701

Inventor Signature

Inventor Name:

Kai-Hsuan Lee

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Inventor Signature

Inventor Name:

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Dated: OX |

Inventor Signatus

Docket No.: P20161062US00/24061.3569US01

Customer No.: 42717

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Dated: 2019, 08.29

inventor Signature