

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
YI-JING LEE	05/04/2017
JENG-WEI YU	05/05/2017
LI-WEI CHOU	05/04/2017
TSZ-MEI KWOK	05/04/2017
MING-HUA YU	05/04/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
<b>Street Address:</b>	8, LI-HSIN RD. 6
<b>Internal Address:</b>	HSINCHU SCIENCE PARK
<b>City:</b>	HSINCHU
<b>State/Country:</b>	TAIWAN
<b>Postal Code:</b>	300-78
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15594842
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(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>	
<b>Phone:</b>	2146515000
<b>Email:</b>	ipdocketing@haynesboone.com
<b>Correspondent Name:</b>	HAYNES AND BOONE, LLP IP SECTION
<b>Address Line 1:</b>	2323 VICTORY AVENUE
<b>Address Line 2:</b>	SUITE 700
<b>Address Line 4:</b>	DALLAS, TEXAS 75219
<b>ATTORNEY DOCKET NUMBER:</b>	2016-0728/24061.3462US02
<b>NAME OF SUBMITTER:</b>	/YILUN WANG/
<b>SIGNATURE:</b>	/Yilun Wang/
<b>DATE SIGNED:</b>	05/15/2017

**Total Attachments: 4**

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# ASSIGNMENT

WHEREAS, we,

China	(1)	Yi-Jing Lee	of	Hsinchu City, Taiwan, Republic of
	(2)	Jeng-Wei Yu	of	Hsinchu, Taiwan, Republic of China
	(3)	Li-Wei Chou	of	Hsinchu, Taiwan, Republic of China
	(4)	Tsz-Mei Kwok	of	Hsinchu, Taiwan, Republic of China
China	(5)	Ming-Hua Yu	of	Hsinchu City, Taiwan, Republic of

have invented certain improvements in

## **SEMICONDUCTOR DEVICE HAVING MERGED EPITAXIAL FEATURES WITH ARC-LIKE BOTTOM SURFACE AND METHOD OF MAKING THE SAME**

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        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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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.

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Inventor Name: Yi-Jing Lee

Residence Address: 2F., No. 87, Ln. 19, Guanxin Rd., East Dist.  
Hsinchu City 300, Taiwan, Republic of China

Dated: 2017/05/04

Yi-Jing Lee  
Inventor Signature

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Inventor Name: Jeng-Wei Yu

Residence Address: 8, Li-Hsin Rd. 6, Hsinchu Science Park  
Hsinchu 300-78, Taiwan, Republic of China

Dated: 2017/05/05

Jeng-Wei Yu  
Inventor Signature

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Inventor Name: Li-Wei Chou

Residence Address: 8, Li-Hsin Rd. 6, Hsinchu Science Park  
Hsinchu 300-78, Taiwan, Republic of China

Dated: 2017/05/04

Li-Wei Chou  
Inventor Signature

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Customer No.: 000042717

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Inventor Name: Tsz-Mei Kwok

Residence Address: Apt. 9D, 128 Jin Shan Street  
Hsinchu, Taiwan

Dated: 2017 / 5 / 4

Tsz-Mei Kwok  
Inventor Signature

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Inventor Name: Ming-Hua Yu

Residence Address: No. 60, Lane 185, Sinjhuang St., East Dist.  
Hsinchu City 30073, Taiwan, Republic of China

Dated: 2017 / 5 / 04

Ming-Hua Yu  
Inventor Signature

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