

## 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>
CHIH-LIANG CHEN	10/25/2016
CHIH-MING LAI	11/01/2016
CHARLES CHEW-YUEN YOUNG	11/03/2016
CHIN-YUAN TSENG	11/01/2016
JIANN-TYNG TZENG	10/28/2016
KAM-TOU SIO	11/03/2016
RU-GUN LIU	11/02/2016
WEI-LIANG LIN	11/01/2016
L. C. CHOU	10/25/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.
<b>Street Address:</b>	NO. 8, LI-HSIN RD. VI, HSINCHU SCIENCE PARK
<b>City:</b>	HSINCHU
<b>State/Country:</b>	TAIWAN
<b>Postal Code:</b>	300
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15362002
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(703)518-5499
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<b>ATTORNEY DOCKET NUMBER:</b>	T5057-1210U
<b>NAME OF SUBMITTER:</b>	RANDY A. NORANBROCK

PATENT

<b>SIGNATURE:</b>	/Randy A. Noranbrock/
<b>DATE SIGNED:</b>	11/28/2016
<b>Total Attachments: 2</b> source=EfiledAssgn#page1.tif source=EfiledAssgn#page2.tif	

Docket No. P20160214US00  
T5057-1210U

## ASSIGNMENT

In consideration of the premises and other good and valuable consideration in hand paid, the receipt and sufficiency of which is hereby acknowledged, the undersigned,

- |                            |                  |
|----------------------------|------------------|
| 1) Chih-Liang CHEN         | 6) Kam-Tou SIO   |
| 2) Chih-Ming LAI           | 7) Ru-Gun LIU    |
| 3) Charles Chew-Yuen YOUNG | 8) Wei-Liang LIN |
| 4) Chin-Yuan TSENG         | 9) L. C. CHOU    |
| 5) Jiann-Tyng TZENG        |                  |

who has made a certain new and useful invention, hereby sells, assigns and transfers unto TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD., having a place of business at No. 8, Li-Hsin Rd. VI, Hsinchu Science Park, Hsinchu 300, Taiwan R.O.C.

its successors and assigns (hereinafter designated "ASSIGNEE") the entire right, title and interest for the United States of America as defined in 35 U.S.C. 100 in the invention entitled

### METHOD OF MANUFACTURING FINS AND SEMICONDUCTOR DEVICE WHICH INCLUDES FINS

- (a) for which an application for United States Letters Patent was filed on 2016-11-28, and identified by United States Patent Application No. 15/362,002; or
- (b) for which an application for United States Letters Patent was executed on \_\_\_\_\_,

and the undersigned hereby authorizes and requests the United States Commissioner of Patents and Trademarks to issue any and all United States Letters Patent which may be granted therefore and any and all extensions, divisions, reissues, continuations, or continuations-in-part thereof, and the right to all benefits under the International Convention for the Protection of Industrial Property to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned agrees that the attorneys of record in said application shall hereafter act on behalf of said ASSIGNEE;

AND the undersigned hereby agrees to transfer a like interest, and to render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, upon request of the said ASSIGNEE, its successors, assigns and legal representatives, and without further remuneration, in and to any improvements, and applications for patent based thereon, growing out of or related to the said invention; and to execute any papers by the said ASSIGNEE, its successors, assigns and legal representatives, deemed essential to ASSIGNEE's full protection and title in and to the invention hereby transferred.

SIGNED on the date indicated aside my signature:

1) Chih-Liang Chen  
Name: Chih-Liang CHEN

2) Chih-Ming Lai  
Name: Chih-Ming LAI

3) Charles Chew-Yuen YOUNG  
Name: Charles Chew-Yuen YOUNG

2016/10/25  
Date:

2016/11/01  
Date:

11/03/2016  
Date:

Docket No. P20160214US00  
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4) Chin-Yuan Tseng  
Name: Chin-Yuan TSENG

2016 / 11 / 1  
Date:

5) Jaann-Tyng TZENG  
Name: Jaann-Tyng TZENG

2016.10.28  
Date:

6) Kam-Tou SIO  
Name: Kam-Tou SIO

2016.11.03.  
Date:

7) Ru - Gun LIU  
Name: Ru-Gun LIU

2016.11.02  
Date:

8) Wei-Liang LIN  
Name: Wei-Liang LIN

2016.11.01.  
Date:

9) L. C. CHOU  
Name: L. C. CHOU

2016.10.25  
Date: