505407251 04/02/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
I-MING CHANG	02/22/2019
CHUNG-LIANG CHENG	02/22/2019
HSIANG-PI CHANG	02/22/2019
HUNG-CHANG SUN	03/04/2019
YAO-SHENG HUANG	03/12/2019
YU-WEI LU	02/26/2019
FANG-WEI LEE	02/22/2019
ZIWEI FANG	02/27/2019
HUANG-LIN CHAO	02/27/2019

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LTD.
Street Address:	NO.8, LI-HSIN RD. 6, HSINCHU SCIENCE PARK
City:	HSINCHU
State/Country:	TAIWAN

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16373235

CORRESPONDENCE DATA

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NAME OF SUBMITTER:	ANTHONY KING
SIGNATURE:	/Anthony King/

PATENT 505407251 REEL: 048772 FRAME: 0908

DATE SIGNED: 04/02/2019

Total Attachments: 3
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PATENT REEL: 048772 FRAME: 0909

US ONLY

ASSIGNMENT

WHEREAS, I(we), CHANG, I-MING, CHENG, CHUNG-LIANG, CHANG, HSIANG-PI, SUN, HUNG-CHANG, HUANG, YAO-SHENG, LU, YU-WEI, LEE, FANG-WEI, FANG, ZIWEI and CHAO. HUANG-LIN whose post office address(es) appear(s) below, hereinafter referred to as ASSIGNOR, have invented certain new and useful invention entitled

SEMICONDUCTOR STRUCTURE AN	D METHOD OI	FFORMING T	THE SAME
(hereinafter referred to as the INVENTION) for which an a is executed on even date herewith unless at least one of a United States Design Patent was	application for United	d States Letters Pa	
□ executed on:			
☐ filed on: ☐ established by PCT International Patent Applica United States of America ☐ issued on as U.S. Patent N		īled:	designating the
WHEREAS, TAIWAN SEMICONDUCTOR MAN address is NO.8, LI-HSIN RD. 6, HSINCHU hereinafter referred to as ASSIGNEE, is desirous of acquir	UFACTURING (SCIENCE PARK	. HSINCHU '	TAIWAN DOC
the United States and its territorial possessions;			
NOW, THEREFORE, for good and valuable consider ASSIGNOR, by these presents do sell, assign and transfer and to said INVENTION and application throughout the Patent granted on any division, continuation, continuation terms for which the same may be granted, including all presents and the same may be granted, including all presents and the same may be granted.	r unto said ASSIGNEI United States of A n-in-part and reissue	E, the entire right, merica, including of said application	title, and interest in any and all Letters
ASSIGNOR further covenants that no assignments, or entered into which would conflict with this Assignment	sale, agreement or ent;	ncumbrance has t	been or will be made
ALSO, ASSIGNOR hereby agrees to execute any door filing, prosecution and maintenance of said application said INVENTION, including additional documents that m said INVENTION, all without further consideration. As ASSIGNEE'S expense, to identify and communicate to Assoncerning the INVENTION that are within ASSIGNOR'S p testimony on behalf of ASSIGNEE that lawfully may maintenance, litigation and defense of any patent app instrument. ASSIGNOR'S obligations under this ins administrators and other legal representatives.	or any other patent a ay be required to aff SIGNOR also agrees, SIGNEE at ASSIGNEE ossession or control, be required of ASSI lication or patent en	application(s) in the rights of the rights of the without further and to provide further the government of the respect to the respect the respect to the respec	the United States for ASSIGNEE in and to consideration and a ents and information arther assurances and of the prosecution in the terms of the prosecution.
ALSO, ASSIGNOR hereby authorizes and requests the and all Letters Patent referred to above to ASSIGNEE, as the same, for ASSIGNEE'S sole use and behoof; and for the successors, to the full end of the term for which such I same would have been held by ASSIGNOR had this assign	the ASSIGNEE of the second of the etters. Patent may be	entire right, title a ASSIGNEE'S legal	and interest in and to
Assignor Name	Address		
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(X) I-Ming Chang	(X)	2019/2/	22
Name of Witness (optional)	Name of Witness (anti-		

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Signature of Witness (optional)

Name of Witness (optional)

Signature of Witness (Optional)

3/22/09/47/04	
Assignor Name CHENG, CHUNG-LIANG	Address NO.259, CHENLENG RD., CHANGHUA COUNTY 500, TAIWAN (R.O.C.)
Signature of Assignor (X) (AUNO) LACON O	Date of Signature (X) 70 0 /02/2 2
Name of Witness footional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)
F	
Assignor Name CHANG, HSIANG-PI	Address 4F., NO.6-3, ALY. 2, LN. 151, BAOPING RD., YONGHE DIST., NEW TAIPEI CITY 234, TAIWAN (R.O.C.)
Signature of Assignor (X) Chan Horand - Pi	Date of Signature (X) >0 9 $10> 1>V$
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)
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Signature of Assignor (X) Jan Jan	Date of Signature (X) 70 9 03 04
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)
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Signature of Assignor (X) YBO SHENG FUBNG	Date of Signature (X) 7 21 9/63/12
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)
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Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

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Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

Assignor Name FANG, ZIWEI	9 SONGCUI ROAD, 17TH LANE, BAOSHAN TOWNSHIP, HSINCHU, TAIWAN (R.O.C.)
Signature of Assignor (X)	Date of Signature (X) 2019 / 2/27
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

Assignor Name CHAO, HUANG-LIN	Address 4585 SE TEAKWOOD STREET, HILLSBORO OR 97123, U.S.A.
Signature of Assignor (X) / M L C Name of Witness (optional)	Date of Signature (X) 2019/2/27 Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)