506074752 05/26/2020

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YI-HSIUNG LIN	09/02/2019
YI-HSUN CHIU	09/02/2019
STAN CHANG	09/02/2019
CHING-WEI TSAI	09/03/2019
YU-XUAN HUANG	09/02/2019
ALAN CHENG	09/03/2019
HOWARD CH. WANG	09/03/2019

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
Street Address:	8, LI-HSIN RD. 6, SCIENCE BASED INDUSTRIAL PARK-
City:	HSIN-CHU
State/Country:	TAIWAN
Postal Code:	300-77

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16558010

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	09575.0091-00000
NAME OF SUBMITTER:	ANNA MICHAUD
SIGNATURE:	/Anna Michaud/
DATE SIGNED:	05/26/2020

PATENT 506074752 REEL: 052746 FRAME: 0807

Total Attachments: 3

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SOLE/JOINT INVENTION (Worldwide Rights) Attorney Docket No. 09575.0091-00000

ASSIGNMENT FOR UTILITY OR DESIGN PATENT APPLICATION

ASSIGNMENT:

WHEREAS I/We are the below-named inventor(s) (hereinafter referred to as Assignor(s)) of an invention entitled:

TRANSISTORS WITH VARYING WIDTH NANOSHEET

as disclosed and claimed in the application attached hereto and identified below this paragraph:

Application Number	Country of Filing	Filing Date

WHEREAS, Taiwan Semiconductor Manufacturing Co., Ltd., whose post office address is 8, Li-Hsin Rd. 6, Science-Based Industrial Park, Hsin-Chu, Taiwan 300-77, R.O.C., (hereinafter referred to as Assignee), is desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to all applications for patents on this invention in all countries throughout the world, including any PCT International Application and all national stage applications based thereon that may be filed, and all patents issued upon such applications in all countries throughout the world;

NOW THEREFORE, be it known that, for good and valuable consideration the receipt of which from Assignee is hereby acknowledged, I/We, as Assignor(s), have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, my/our entire right, title, and interest in and to this invention, the above-referenced applications that disclose and claim this invention, any PCT International Application and all national stage applications based thereon that may be filed, any other applications for patents filed anywhere in the world that claim this invention, and all divisions, and continuations of any such application, and all patents which may be granted thereon, and all reissues thereof, and all rights to claim priority in any country on the basis of any such applications, and all extensions, renewals, and reissues thereof; and I/We hereby authorize and request that any official of any country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, I/WE covenant that I/We have the full right to convey the interest assigned by this Assignment, and I/We have not executed and will not execute any agreement in conflict with this Assignment;

AND, I/WE further covenant and agree that I/We will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to me/us respecting this invention, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, its successors or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper patent protection for this invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

AND, I/WE authorize and request a patent practitioner of record in this application, to insert the filing date, country of filing, and application numbers of the above-referenced applications when known.

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SOLE/JOINT INVENTION (Worldwide Rights) Attorney Docket No. 09575.0091-00000

IN TESTIMONY WHEREOF, I/We have hereunto set our hands.

ASSIGNOR (Inventor) 1	ASSIGNOR (Inventor) 2	
Signature	Yi Hkun Chiu Signature	
Yi-Hsiung Lin	Yi-Hsun Chiu	
Print Name	Print Name	
>01P. P.P	2019.9.2	
Execution Date	Execution Date	
ASSIGNOR (Inventor) 3	ASSIGNOR (Inventor) 4	
Stan Chand Signature	Olim Weisen.	
Stan Chang	Ching-Wei Tsai	
Print Name	Print Name	
2019.9.2	Execution Date	
Execution Date	Execution Date	
ASSIGNOR (Inventor) 5	ASSIGNOR (Inventor) 6	
Yn Xuan Huang. Signature	Signature Change	
Signature	Signature	
Yu-Xuan Huang	Alan Cheng	
Print Name	Print Name	
્રુજા (^વ ્રી . ી. Execution Date	2019, 9, 3	
Execusion Date	Execution Date	

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ASSIGNOR (Inventor) 7		
Howard C- Signature	H. Wary	
Howard CH. Wang		
Print Name		
9/3/2019 Execution Date		
Assignee Name:	Taiwan Semiconductor Manufacturing Co., Ltd.	
Signature:		
Printed Name:		
Corporate Title:	<u></u>	
Date:		

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RECORDED: 05/26/2020

PATENT REEL: 052746 FRAME: 0811