

PATENT ASSIGNMENT COVER SHEET

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NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
TIMOTHY VASEN	10/25/2019
MARCUS JOHANNES HENRICUS VAN DAL	10/18/2019
GERBEN DOORBOS	10/18/2019
RECEIVING PARTY DATA	
Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
Street Address:	8, LI-HSIN RD. 6
Internal Address:	HSINCHU SCIENCE PARK
City:	HSINCHU
State/Country:	TAIWAN
Postal Code:	300-78
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16590115
CORRESPONDENCE DATA	
Fax Number:	(206)682-6031
<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>	
Phone:	206-622-4900
Email:	CircleR@seedip.com
Correspondent Name:	SEED IP LAW GROUP LLP
Address Line 1:	701 FIFTH AVENUE
Address Line 2:	SUITE 5400
Address Line 4:	SEATTLE, WASHINGTON 98104
ATTORNEY DOCKET NUMBER:	890102.472
NAME OF SUBMITTER:	JIANPING ZHANG
SIGNATURE:	/Jianping Zhang/
DATE SIGNED:	12/11/2019
Total Attachments: 3	
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ASSIGNMENT

Application Number: **16/590,115**

Filing Date: **October 1, 2019**

Application Country/Region: **United States of America**

Application Title: **METHODS OF MANUFACTURING A FIELD EFFECT TRANSISTOR USING CARBON NANOTUBES AND FIELD EFFECT TRANSISTORS**

Assignee: **Taiwan Semiconductor Manufacturing Co., Ltd.**

Assignee being a company, corporation, or juristic entity of: **Republic of China (R.O.C.)**


Assignee's principal place of business: **8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu, Taiwan 300-78 R.O.C.**

I, the below identified and undersigned inventor or co-inventor, as the case may be, for and in consideration of good and valuable consideration, the receipt, sufficiency, and adequacy of which are hereby acknowledged, hereby transfer and assign to Assignee, its legal representatives, successors, and assigns, my entire right, title, and interest in and to the inventions for which the above identified patent application is made and describes (hereinafter referred to as "the Patent Rights"), together with any and all patents or patent applications anywhere worldwide to which any of the Patent Rights directly or indirectly claims priority, including but not limited to provisional applications thereof, or for which any of the Patent Rights directly or indirectly forms a basis for priority, together with all existing and/or future continuations, continuations-in-part, continuing prosecution applications, requests for continuing examinations, divisions, reissues, reexaminations, extensions, registrations, and foreign counterparts of any item in any of the foregoing, together with the right to sue for and be entitled to any damages, injunctive relief, and any other remedies of any kind for past, current, and future infringement thereof, together with all rights worldwide in the Patent Rights; said entire right, title, and interest, to be held and enjoyed by the Assignee for its own use and enjoyment and for the use and enjoyment of their legal representatives, successors, and assigns to the full end of the term for which the aforementioned rights may be granted anywhere in the world.

I hereby further agree to assist in and execute all documents needed now or in the future to perfect, obtain, and secure the aforementioned rights to Assignee, its legal representatives, successors, and assigns, for any jurisdiction in the world. At the expense of Assignee, or its legal representatives, successors, or assigns, I agree to assist in any legal proceedings, sign all lawful papers, make all lawful oaths, and generally do everything possible to aid Assignee, its legal representatives, successors, and assigns, to enforce the aforementioned rights in any and all countries and regions worldwide.

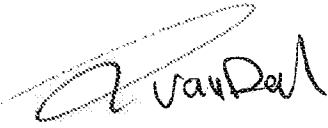

I hereby grant Assignee, along with the following Assignee representatives, the power to insert in this Assignment any further identification that may be necessary or desirable in order to comply with the rules for recordation of this document any place in the world: All practitioners at Customer Number 00500.

separately signed counterpart of this Assignment constitutes an original Assignment for the inventor(s) that signed such counterpart.

Inventor Name	Inventor Signature	Date Signed mm/dd/year
<i>Timothy Vasen</i>		10/25/2019
<i>Marcus Johannes Henricus Van Dal</i>		
<i>Gerben Doornbos</i>		

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If there are co-inventors listed below, the signatures of all the inventors need not appear on the same page, and each inventor may sign this Assignment in multiple counterparts, such that each separately signed counterpart of this Assignment constitutes an original Assignment for the inventor(s) that signed such counterpart.

Inventor Name	Inventor Signature	Date Signed mm/dd/year
<i>Timothy Vasen</i>		
<i>Marcus Johannes Henricus Van Dal</i>		10 / 18 / 2019
<i>Gerben Doornbos</i>		18 Oct 2019

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