506096484 06/08/2020

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ZONG-JIE WU	05/15/2020
CHIAO-CHI WANG	05/15/2020
CHUNG-CHUAN TSENG	05/15/2020
CHIA-PING LAI	05/15/2020

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.	
Street Address:	NO.8, LI-HSIN RD.6	
Internal Address:	SCIENCE-BASED INDUSTRIAL PARK	
City:	HSINCHU	
State/Country:	TAIWAN	
Postal Code:	300	

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	16894647	

CORRESPONDENCE DATA

Fax Number:

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NAME OF SUBMITTER: R. BURNS ISRAELSEN		
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DATE SIGNED: 06/08/2020		

Total Attachments: 2

PATENT REEL: 052869 FRAME: 0684

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PATENT REEL: 052869 FRAME: 0685

ASSIGNMENT

This assignment agreement is applicable to an invention entitled (Invention Title)
SEMICONDUCTOR DEVICE AND METHOD OF MANUFACTURING THE SAME
The PATENT RIGHTS referred to in this agreement are:
(check one) Sa patent application for this invention, executed by the ASSIGNOR(S)
concurrently with this assignment.
U.S. patent application Serial No. 16/894,647 , filed June 5, 2020
a U.S. patent application based on PCT International Application
Nofiled on (date)(U.S. patent application
Serial No, if known).
U.S. patent No, issued
The PATENT RIGHTS also include all divisions, reissues, continuations and extensions of
the patents and patent applications identified above.
The PATENT RIGHTS assigned under this agreement are:
⊠U.S. patent rights only.
The ASSIGNOR(S) referred to in this agreement is (or are) the inventor(s) whose signatures
appear on page 2 of this Assignment and any Supplemental Sheet(s).
The ASSIGNEE referred to in this agreement is:
(Name of Assignee) TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
(Address) NO.8, LI-HSIN RD.6, SCIENCE-BASED INDUSTRIAL PARK, HSINCHU,
<u>TAIWAN 300, R.O.C.</u>
The ASSIGNEE is:
(check one)[]An individual.
☐A Partnership.
⊠A Corporation of <u>TAIWAN, R.O.C.</u> (specify state or country) [[(other)
The ASSIGNOR(S), in consideration of \$10.00 paid by the ASSIGNEE, and other good and
valuable consideration receipt of which is acknowledged to be be a fine (a) A. E.H.

The ASSIGNOR(S), in consideration of \$10.00 paid by the ASSIGNEE, and other good and valuable consideration, receipt of which is acknowledged, hereby assign(s) the following rights to the ASSIGNEE, its successors and assigns:

the full and exclusive right to the invention;

the entire right, title and interest in and to the PATENT RIGHTS;

the right to sue and recover for any past infringement; and

the right to claim priority under 35 USC 119, 35 USC 120, or any other applicable provisions, based on any earlier patent applications for this invention.

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THIS IS PAGE 2 OF AN ASSIGNMENT FROM THE INVENTOR(S) TO ASSIGNEE: TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD. INVENTION TITLE: SEMICONDUCTOR DEVICE AND METHOD OF MANUFACTURING THE SAME

As to all U.S. patent applications assigned under this agreement, the ASSIGNOR(S) hereby authorize(s) and request(s) the Commissioner of Patents and Trademark to issue all Letters Patent to the ASSIGNEE as the assignee of the entire right, title and interest, for the sole use and enjoyment of said ASSIGNEE, its successors and assigns.

Further, the ASSIGNOR(S) agree(s) to communicate to said ASSIGNEE, or its representatives, any fact known to the ASSIGNOR(S) with respect to said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause and all Letter Patent to be issued to said ASSIGNEE, make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention.

The ASSIGNOR(S) authorize(s) the attorneys and agents who have the power of attorney in this application to check any appropriate boxes and to insert the Serial Number and filing date in this document after it has been executed.

Zong-Jie WU	gong Jie WV	2020/05/15
Name of sole or first inventor	Signature	Date
Chiao-Chi WANG	Chiuc Chi Wang	2020/5/15
Name of second inventor, if any	Signature J	Date
Chung-Chuan TSENG	<u>Charz Charn Tiewy</u> Signature	7020/5/55
Name of third inventor, if any	Signature	Date
Chia-Ping LAI	69.00	<u> </u>
Name of fourth inventor, if any	Signature	Date

PATENT REEL: 052869 FRAME: 0687

RECORDED: 06/08/2020