

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT6434591

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
BO-YU LAI	05/06/2019
KAI-HSUAN LEE	05/06/2019
WEI-YANG LEE	05/06/2019
FENG-CHENG YANG	05/06/2019
YEN-MING CHEN	05/06/2019
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:	17113209
CORRESPONDENCE DATA	
Fax Number:	(435)252-1361
<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:	4352521360
Email:	vmangum@mabr.com
Correspondent Name:	MASCHOFF BRENNAN
Address Line 1:	1389 CENTER DRIVE, SUITE 300
Address Line 4:	PARK CITY, UTAH 84098
ATTORNEY DOCKET NUMBER:	T1516.10501US03
NAME OF SUBMITTER:	R. BURNS ISRAELSEN
SIGNATURE:	/R. Burns Israelsen/
DATE SIGNED:	12/07/2020
Total Attachments: 2	

source=T1516.10501US03 Assignment#page1.tif

source=T1516.10501US03 Assignment#page2.tif

63
7L
5

ASSIGNMENT

This assignment agreement is applicable to an invention entitled (Invention Title) AIR GAP FORMATION BETWEEN GATE SPACER AND EPITAXY STRUCTURE

The PATENT RIGHTS referred to in this agreement are:

- (check one) a patent application for this invention, executed by the ASSIGNOR(S) concurrently with this assignment.
- U.S. patent application Serial No. _____, filed _____
- a U.S. patent application based on PCT International Application No. _____ filed 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, TAIWAN 300, R.O.C.

The ASSIGNEE is:

- (check one) An individual.
- A Partnership.
- A Corporation of TAIWAN, R.O.C. (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, 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.

THIS IS PAGE 2 OF AN ASSIGNMENT FROM THE INVENTOR(S) TO
 ASSIGNEE: TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
 INVENTION TITLE: AIR GAP FORMATION BETWEEN GATE SPACER AND
 EPITAXY STRUCTURE

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.

<u>Bo-Yu LAI</u> Name of sole or first inventor	<u>Bo-Yu Lai</u> Signature	<u>2019/5/6</u> Date
<u>Kai-Hsuan LEE</u> Name of second inventor, if any	<u>Kai Hsuan Lee</u> Signature	<u>2019/5/6</u> Date
<u>Wei-Yang LEE</u> Name of third inventor, if any	<u>Wei-yang Lee</u> Signature	<u>2019/05/06</u> Date
<u>Feng-Cheng YANG</u> Name of fourth inventor, if any	<u>Feng-Cheng Yang</u> Signature	<u>2019/05/06</u> Date
<u>Yen-Ming CHEN</u> Name of fifth inventor, if any	<u>Yen Ming Chen</u> Signature	<u>5/6/19</u> Date