

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5454964

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
CHIAO-CHUN HSU	03/22/2019
CHIH-MING CHEN	03/22/2019
CHUNG-YI YU	03/22/2019
SHENG-HSUN LU	03/22/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
<b>Street Address:</b>	NO. 8, LI-HSIN RD. 6
<b>Internal Address:</b>	HSIN-CHU SCIENCE PARK
<b>City:</b>	HSIN-CHU
<b>State/Country:</b>	TAIWAN
<b>Postal Code:</b>	300-77
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16352227
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(216)502-0601
<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>	
<b>Phone:</b>	216-502-0600
<b>Email:</b>	docketing@eschweilerlaw.com
<b>Correspondent Name:</b>	ESCHWEILER & POTASHNIK, LLC
<b>Address Line 1:</b>	ROSETTA CENTER
<b>Address Line 2:</b>	629 EUCLID AVE., SUITE 1000
<b>Address Line 4:</b>	CLEVELAND, OHIO 44114
<b>ATTORNEY DOCKET NUMBER:</b>	TSMCP985US
<b>NAME OF SUBMITTER:</b>	MATTHEW W. GLAUSE
<b>SIGNATURE:</b>	/Matthew W. Glause/
<b>DATE SIGNED:</b>	04/03/2019
<b>Total Attachments: 6</b>	

source=Assignment#page1.tif  
source=Assignment#page2.tif  
source=Assignment#page3.tif  
source=Assignment#page4.tif  
source=Assignment#page5.tif  
source=Assignment#page6.tif

**PATENT ASSIGNMENT**

**PARTIES TO THE ASSIGNMENT**

Assignor(s):  
Chiao-Chun Hsu

Assignor(s):  
Chih-Ming Chen

Assignor(s):  
Chung-Yi Yu

Assignor(s):  
Sheng-Hsun Lu

Assignee:  
Taiwan Semiconductor Manufacturing Co., Ltd.  
No. 8, Li-Hsin Rd. 6, Hsin-Chu Science Park  
Hsin-Chu, Taiwan 300-77  
Republic of China

**AGREEMENT**

WHEREAS, ASSIGNOR(S) (listed above) are inventor(s) of an invention entitled  
"A SEMICONDUCTOR TOOL HAVING CONTROLLABLE AMBIENT ENVIRONMENT  
PROCESSING ZONES" for which:

a non-provisional application for United States Letters Patent:

☒ was executed on even date preparatory to filing (each inventor should sign this

Assignment on the same day as he/she signs the Declaration); or

☐ was filed on \_\_\_\_\_ and accorded U.S. Serial No. \_\_\_\_\_; or

☐ I hereby authorize and request my attorney associated with Customer No.  
107476, to insert on the designated lines below the filing date and application  
number of said application when known:

U.S. Serial No. \_\_\_\_\_

filed on \_\_\_\_\_

WHEREAS, ASSIGNEE (listed above), a corporation of the Republic of China is desirous of acquiring the entire right, title and interest in and to the invention and in and to any letters patent that may be granted therefore in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S) hereby sell, assign and transfer unto ASSIGNEE its successors and assigns, the entire right, title and interest in and to said invention and improvements, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues, re-examinations and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNOR(S) had this assignment, transfer and sale not been made. ASSIGNOR(S) hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNOR(S) agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding said letters patent, or for the purpose of protecting title to said invention or letters patent therefore.

TSMC Docket No. P20182791US00  
Docket No. TSMCP985US

3/22 2019  
Date

Chiao-Chun Hsu  
Name 1<sup>st</sup> Inventor Chiao-Chun Hsu

TSMC Docket No. P20182791US00  
Docket No. TSMCP985US

3/22 2019  
Date

Chih-Ming Chen  
Name 2<sup>nd</sup> Inventor Chih-Ming Chen

TSMC Docket No. P20182791US00  
Docket No. TSMCP985US

3/22 2019  
Date

Chung-Yi Yu  
Name 3<sup>rd</sup> Inventor Chung-Yi Yu

TSMC Docket No. P20182791US00  
Docket No. TSMCP985US

3/22 2019  
Date

Sheng Hsun Lu  
Name 4<sup>th</sup> Inventor Sheng-Hsun Lu