PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE: NEW ASSIGNMENT NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHIH-YUAN YAO	04/28/2020
YU-YU CHEN	04/28/2020
HSIANG-LUNG TSOU	04/28/2020

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.
Street Address:	NO. 8, LI-HSIN RD. 6, HSINCHU SCIENCE PARK
City:	HSINCHU
State/Country:	TAIWAN
Postal Code:	300-78

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17835152

CORRESPONDENCE DATA

Fax Number: (404)521-4286

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using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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MCCLURE, QUALEY & RODACK, LLP **Correspondent Name:** Address Line 1: 280 INTERSTATE NORTH CIRCLE SE

Address Line 2: SUITE 550

Address Line 4: ATLANTA, GEORGIA 30339

ATTORNEY DOCKET NUMBER: 252056-1191 NAME OF SUBMITTER: DANIEL R. MCCLURE SIGNATURE: /Daniel R. McClure/ **DATE SIGNED:** 06/08/2022

Total Attachments: 2

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> PATENT REEL: 060134 FRAME: 0680 507324427

ASSIGNMENT

WHEREAS, Chih-Yuan YAO, Yu-Yu CHEN and Hsiang-Lung TSOU hereafter referred to as ASSIGNOR, has/have invented certain new and useful improvements described and set forth in the below identified application for United States Letters Patent:		
Title: SEMICONDUCTOR MAN	UFACTURING SYSTEM AND PARTICLE REMOVAL	
Filed:Executed on:	Serial No.	
WHEREAS, Taiwan Semiconduct	or Manufacturing Co., Ltd., of No. 8, Li-Hsin Rd. 6, Hsinel	<u> </u>

Science Park, Hsinchu 300-78, Taiwan R.O.C., hereinafter referred to as ASSIGNEE, is desirous of acquiring ASSIGNOR'S interest in the said invention and application and in any U.S. Letters Patent which may be granted on the same;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable consideration, receipt of which is hereby acknowledged by Assignor, Assignor has/have sold, assigned and transferred, and by these presents does/do sell, assign and transfer unto the said Assignee, and Assignee's successors and assigns, all his/her/their rights, title and interest in and to the said invention and application and all future improvements thereon, and in and to any Letters Patent which may hereafter be granted on the same in the United States, the said interest to be held and enjoyed by said Assignee as fully and exclusively as it would have been held and enjoyed by said Assignor had this Assignment and transfer not been made, to the full end and term of any Letters Patent which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignor further agrees/agree that he/she/they will, without charge to said Assignee, but at Assignee's expense, cooperate with Assignee in the prosecution of said application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as Assignee lawfully may request, to obtain or maintain Letters Patent for said invention and improvement, and to vest title thereto in said Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignor has/have signed his/her/their name(s) on the date(s) indicated.

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ASSIGNMENT

4/28/2020	Chih-Man Yan
Date	Name: Chih-Yuan YAO
4/28/2020	Yu-Tu Chen
Date	Name: Yu-Yu CHEN
4/28/2020	_ Hstang-Lung Tsou
Date	Name: Hsiang-Lung TSOU

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