506849814 09/01/2021

PATENT ASSIGNMENT COVER SHEET

EPAS ID: PAT6896635 Electronic Version v1.1

Stylesheet Version v1.2

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHUNG-TING KO	02/16/2021
SUNG-EN LIN	02/16/2021
CHI ON CHUI	02/16/2021

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.	
Street Address:	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:	17461608

CORRESPONDENCE DATA

Fax Number: (703)205-8050

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.

Phone: 7032058000

Email: mailroom@bskb.com, ksayson@bskb.com BIRCH, STEWART, KOLASCH & BIRCH, LLP Correspondent Name: Address Line 1: 8110 GATEHOUSE ROAD, SUITE 100E

Address Line 4: FALLS CHURCH, VIRGINIA 22042

ATTORNEY DOCKET NUMBER:	2519-0661PUS1	
NAME OF SUBMITTER:	KLEITHON SAYSON	
SIGNATURE:	/Kleithon Sayson/	
DATE SIGNED:	09/01/2021	

Total Attachments: 2

source=2021-09-01_ASSIGNMENT_2519-0661PUS1#page1.tif source=2021-09-01 ASSIGNMENT 2519-0661PUS1#page2.tif

PATENT REEL: 057360 FRAME: 0638 506849814

U.S. Attorney Docket No.: 2519-0661PUS1

U.S. Application No.: 17/461,608 Docket Number: NP-28112-US / P20203753US00 Filed On: August 30, 2021

DECLARATION AND ASSIGNMENT

litle of Invention:	SEMICONDUCTOR DEVICE AND MANUFACTURE	ING METHOD THEREOF
As a below named in	ventor, or one of the below named joint inventors, I her	reby declare that:
	assignment is directed to the application attached he n is as identified by the attorney docket number as set	
United States Applica	ation No. or PCT International Application No.:	, filed on
	application was made or authorized to be made by me original inventor or an original joint inventor of a claim	

I have reviewed and understand the contents of the above-identified application, including the claims.

I am aware of the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in 37 C.F.R. §1.56.

All statements made of my own knowledge are true and all statements made on information and belief are believed to be true.

I hereby acknowledge that any willful false statement made in this declaration may jeopardize the validity of the application or any patent issuing thereon and is punishable under 18 U.S.C. §1001 by fine or imprisonment of not more than five (5) years, or both.

The above-identified invention shall henceforth be referred to herein as the "INVENTION" and the aboveidentified application shall henceforth be referred to herein as the "APPLICATION."

Taiwan Semiconductor Manufacturing Company, Ltd., a corportion organized and existing under the laws of Taiwan, with its principal office at 8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu, 300-78, Taiwan

and its heirs, successors, legal representatives and assigns shall henceforth be referred to collectively herein as ASSIGNEE.

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I have assigned and do hereby assign to ASSIGNEE, its successors and assigns, my entire right, title and interest in and to said INVENTION and in and to said APPLICATION and all patents which may be granted therefor, and all future non-provisional applications including, but not limited to, divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner for Patents to issue all patents for said INVENTION, or patents resulting therefrom, insofar as my interest is concerned, to ASSIGNEE, as assignee of my entire right, title and interest. I declare that I have not executed and will not execute any agreement in conflict herewith.

Additionally, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I have also assigned and hereby assign to ASSIGNEE, its successors and assigns, all of my rights to the INVENTION disclosed in said APPLICATION, in all countries of the world, including, but not limited to, the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and I further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such rights.

> PATENT REEL: 057360 FRAME: 0639

U.S. Attorney Docket No.: 2519-0661PUS1

Docket Number: NP-28112-US / P20203753US00

I hereby further agree that I will communicate to ASSIGNEE, or to its successors, assigns, and legal representatives, any facts known to me respecting said INVENTION or the file history thereof, and at the expense of ASSIGNEE, its legal representatives, successors, or assigns, will testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid ASSIGNEE, its legal representatives, successors, and assigns, to obtain and enforce proper patent protection for said invention in all countries.

I hereby grant the attorney of record the power to insert on this document any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office or other authority for recordation of this document.

IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year.

NAME OF INVENTOR (Full Legal Name) :	Chung-Ting KO
Signature: / Chung-ting &	/ Date: 2/16/2021
NAME OF INVENTOR (Full Legal Name) :	Sung-En LIN
Signature: / Swy-En UN	/ Date: 2/16/2021
NAME OF INVENTOR (Full Legal Name) :	Chi On CHUI
Signature: / Chi On CHU	/ Date: 2/16/2021

Page 2 of 2

PATENT REEL: 057360 FRAME: 0640