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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DONG-YO JHENG	03/21/2019
KEN-HSIEN HSIEH	11/07/2018
SHIH-MING CHANG	11/07/2018
CHIH-JIE LEE	11/07/2018
SHUO-YEN CHOU	11/07/2018
RU-GUN LIU	11/08/2018

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:	16895547

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	2017-1219/24061.3603US02
NAME OF SUBMITTER:	MARCY OGADO
SIGNATURE:	/Marcy Ogado/
DATE SIGNED:	06/08/2020

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Total Attachments: 4

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PATENT REEL: 052867 FRAME: 0482

Docket No.: P20171219US00/24061.3603US01 Customer No.: 42717

ASSIGNMENT

WHEREAS. we,

△ (1)	Dong-Yo Jheng	of	Hsinchu, Taiwan, Republic of China
√ (2) *	Ken-Hsien Hsieh	of	Taipei City, Taiwan, Republic of China
√ (3)	Shih-Ming Chang	of	Hsinchu, Taiwan, Republic of China
(4)	Chih-Jie Lee	of	Hsinchu, Taiwan, Republic of China
(5)	Shuo-Yen Chou	of	Hualien County, Taiwan, Republic of China
(6)	Ru-Gun Liu	of	Hsinchu County, Taiwan, Republic of China

have invented certain improvements in

OPTICAL PROXIMITY CORRECTION AND PHOTOMASKS

for which we have executed an application for Letters Patent of the United States of America,

***************************************	of even date filed herewith; and
<u>X</u>	filed on 08-07-2018 and assigned application number 16/057,277; and

WHEREAS, we authorize the attorney of record to update this document to include Patent Office information as deemed necessary (i.e., filing date, serial number, etc.);

WHEREAS, Taiwan Semiconductor Manufacturing Co., Ltd., ("TSMC"), 8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu, Taiwan 300-78, Republic of China is desirous of obtaining the entire right, title, and interest in, to and under the said invention and the said application in the United States of America and in any and all countries foreign thereto;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and other good and valuable consideration, we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said TSMC, its successors, legal representatives, and assigns, the entire right, title, and interest in, to and under the said invention, and the said application, and all divisional, renewal, substitutional, and continuing applications thereof, and all Letters Patent of the United States of America which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may be filed for said invention in any country or countries foreign to the United States of America, and all extensions, renewals, and reissues thereof, and all prior patents and patent applications from which a filing priority of the above-described patent application may be obtained, including the right to collect past damages; and we hereby authorize and request the Commissioner of Patents of the United States of America, and any official of any country or countries foreign to the United States of America, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said invention to the said TSMC, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

Docket No.: P20171219US00/24061.3603US01 Customer No.: 42717

AND WE HEREBY further covenant and agree that we will communicate to said TSMC, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, renewal, substitutional, continuing, and reissue applications, make all rightful declarations and/or oaths and generally do everything possible to aid the said TSMC, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

Inventor Name:	Dong-Yo Jheng			
Residence Address:	8, Li-Hsin Rd. 6, Hsinchu Science Park Hsinchu, Taiwan 300-78, Republic of China			
Dated: 2019/0	3/21	Inventor Signature		
inventor Name:	Ken-Hsien Hsieh		***************************************	
Residence Address:	SF, No. 49, Sec. 2, Roos Taipei City 106, Taiwan			
Dated:		Inventor Signature		
Inventor Name:	Shih-Ming Chang		***************************************	
Residence Address:	8, Li-Hein Rd. 6, Heinch Heinchu, Taiwan 300-78			
Dated:		Inventor Signature		
		maemen takumun		

Docket No.: P20171219US00/24061.3603US01

Customer No.: 42717

AND WE HEREBY further covenant and agree that we will communicate to said TSMC, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, renewal, substitutional, continuing, and reissue applications, make all rightful declarations and/or oaths and generally do everything possible to aid the said TSMC, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

***************************************	***************************************	***************************************
Inventor Name:	Dong-Yo Jheng	
Residence Address:	8, Li-Hsin Rd. 6, Hsinchu Science Park Hsinchu, Taiwan 300-78, Republic of China	
Dated:		~
***************************************	***************************************	Inventor Signature
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Dated: 2018 . 11	. 8 7	Ken Hisen Hiel Inventor Signature
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Dated: 20/	1107	Jah-Mary Choung Inventor Signature

Docket No.: P20171219US00/24061.3603US01

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Dated: 70(8/11/0)

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Dated: 20/8/11/07

Inventor Signature

Inventor Name:

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Residence Address:

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Dated: Nov. 8 mil

Rh-Gan Li

Inventor Signature

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