505037020 08/06/2018

EPAS ID: PAT5083771

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHAO-CHING CHANG	08/10/2017
SHENG-CHAN LI	08/10/2017
CHENG-HSIEN CHOU	08/11/2017
TSUNG-WEI HUANG	08/10/2017
MIN-HUI LIN	09/06/2017
YI-MING LIN	08/16/2017

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., 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:	16055308

CORRESPONDENCE DATA

Fax Number: (404)521-4286

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.

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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: 252011-6711 NAME OF SUBMITTER: DANIEL R. MCCLURE **SIGNATURE:** /Daniel R. McClure/ DATE SIGNED: 08/06/2018

PATENT REEL: 046559 FRAME: 0442 505037020

Total Attachments: 2 source=00590776#page1.tif

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PATENT REEL: 046559 FRAME: 0443

ASSIGNMENT

WHEREAS, Chao-Ching CHANG, Sheng-Chan LI, Cheng-Hsien CHOU, Tsung-Wei HUANG, Min-Hui LIN, and Yi-Ming LIN

hereafter referred to as ASSIGNOR, has/have invented certain new and useful improvements as described and set forth in the below identified application for United States Letters Patent:

Title: 1	<u>MAGE SENSOR DEVICE AND ME</u>	THOD FOR	FORMING THE SAME	
Filed:	2017-07-31	Serial No.	15/663,985	
Execut	ted on:			
				Τ

WHEREAS, <u>Taiwan Semiconductor Manufacturing Co., Ltd.</u>, of <u>No. 8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu 300-78, Taiwan R.O.C.</u>, 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.

ASSIGNMENT

	8/10	Chao-Ching CHANE	ก
Date		Chao-Ching CHANG Name: Chao-Ching CHANG	(Last name: CHANG)
	8/10	Sheng - Chan Name: Sheng-Chan LI	LI
Date		Name: Sheng-Chan LI	(Last name: LI)
	8/11	Cheng Hsien CHOU	Choy
Date		Name: Cheng Hsien CHOU	(Last name: CHOU)
	8/10	Trung-Wei HUANG	
Date		Name: Tsung-Wei HUANG	(Last name: HUANG)
	9/6	Min-Hui LIN	
Date		Name: Min-Hui LIN	(Last name: LIN)
	8/16 17	(i-Ming Lin	
Date		Name: Yi-Ming LIN	(Last name: LIN)

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