11/15/2019 505775293

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TUNG-TSUN CHEN	04/14/2015
YI-SHAO LIU	04/23/2015
JUI-CHENG HUANG	04/14/2015
CHIN-HUA WEN	04/17/2015
FELIX YING-KIT TSUI	04/21/2015
YUNG-CHOW PENG	04/17/2015

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16684715

CORRESPONDENCE DATA

Fax Number: (703)518-5499

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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ATTORNEY DOCKET NUMBER:	T5057-1124UB
NAME OF SUBMITTER:	RANDY A. NORANBROCK
SIGNATURE:	/Randy A. Noranbrock/
DATE SIGNED:	11/15/2019

PATENT REEL: 051016 FRAME: 0452 505775293

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ASSIGNMENT

in consideration of the premises and other	good and valua	ble consideration	in hand pa	aid, the receipt	and sufficiency of	۶f
which is hereby acknowledged, the undersigned,			•			_

	1)	Tung-Tsun CHEN	4)	Chin-Hua WEN
	2)	Yi-Shao LIU	5)	Felix Ying-Kit TSUI
	3)	Jui-Cheng HUANG	6)	Yung-Chow PENG
MANUI 300, Tai its succe	FACTI iwan R essors a	URING COMPANY, LTD., <u>having a</u> LO.C.	place of b	ells, assigns and transfers unto TAIWAN SEMICONDUCTOR usiness at No. 8, Li-Hsin Rd. VI, Hsinchu Science Park, Hsinchu the entire right, title and interest for the United States of America
INTE	<u>GRA'</u>	TED CIRCUIT HAVING TE	MPERA	TURE-SENSING DEVICE
(a)	for wi Unite	hich an application for United States Le	etters Pater 14/713,365	at was filed on 2015-05-15, and identified by
(b)	for w	hich an application for United States Lo	etters Pater	nt was executed on,
all Unite continue Property agrees the applicati ASSIGN applicati ASSIGN	ed Stat ations-i to the hat the AND ion for NEE, it ions fo NEE, it	es Letters Patent which may be grante in-part thereof, and the right to all be a said ASSIGNEE, for its interest as A attorneys of record in said application the undersigned hereby agrees to the and obtaining original, divisional, reis a successors, assigns and legal represe or patent based thereon, growing out	ed therefore enefits und SSIGNEE shall herea ransfer a sued or ex- ntatives, and of or relate	States Commissioner of Patents and Trademarks to issue any and and any and all extensions, divisions, reissues, continuations, or iter the International Convention for the Protection of Industrial, its successors, assigns and legal representatives; the undersigned fiter act on behalf of said ASSIGNEE; like interest, and to render all necessary assistance in making tended Letters Patent of the United States, upon request of the said and without further remuneration, in and to any improvements, and ed to the said invention; and to execute any papers by the said exemed essential to ASSIGNEE's full protection and title in and to
1)	Tung Tung Yi-Sh	c date indicated aside my signature: - Jen Chen - Tsun Chen - Show Chu ao Lilu - Chen Hugh G	_	2015. 4. 14 Date: Date: 2015. 4. 14
Name:	Jui-C	heng HUANG CHIN-Hua WEN Hua WEN	_	Date: Date: Date:

PATENT REEL: 051016 FRAME: 0454

Docket No. T5057-1124U

P20140963US00

11. T.	
Name: Felix Ying-Kit TSUI	
6) Sung-Chow (Res.	
Name: Yuhg-Chow PENG	

Date: 4/21/2015

Date: 2015

PATENT REEL: 051016 FRAME: 0455

RECORDED: 11/15/2019