PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHEN-HUA YU	07/19/2016
HAO-YI TSAI	07/19/2016
TZU-SUNG HUANG	07/19/2018
MING-HUNG TSENG	07/19/2016
HUNG-YI KUO	07/19/2016

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:	16132688

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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Address Line 4: ATLANTA, GEORGIA 30339

ATTORNEY DOCKET NUMBER:	252011-6101
NAME OF SUBMITTER:	DANIEL R. MCCLURE
SIGNATURE:	/Daniel R. McClure/
DATE SIGNED:	09/17/2018
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Total Attachments: 2

PATENT REEL: 046887 FRAME: 0512

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> PATENT REEL: 046887 FRAME: 0513

ASSIGNMENT

WHEREAS, Chen-Hua	<u>YU, Hao-Yi TSAl</u>	<u>, Tzu-Sung</u>	HUANC	<u>i, Ming-Hung</u>	TSENG, and
Hung-Yi KUO				1	
hereafter referred to as A described and set forth in					
Title: PACKAGED SE	MICONDUCTOR	DEVICES	WITH	WIRELESS	CHARGING
MEANS					
Filed:		Serial No.			
Executed on:					
WHEREAS, Taiwan Sem	iconductor Manufac	turing Co., L	<u>td.,</u> of <u>N</u>	o. 8, Li-Hsin I	Rd. 6, Hsinchu
Science Park, Hsinchu 30	0-78, Taiwan R.O.C	, hereinafter	referred t	to as ASSIGNI	EE, 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 inade, 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.

PATENT REEL: 046887 FRAME: 0514

ASSIGNMENT

7/19/16	H22	_
Date	Name: Chen-Hua YU	(Last name: YU)
1.19.2016	Har- Vi Tsai	
Date	Name: Hao-Yi TSAI	(Last name: TSAI)
>016-7-19	Tzu-Sung Huang Name: Tzu-Sung HUANG	
Date	Name: Tzu-Sung HUANG	(Last name: HUANG)
7016. 7.19 Date	Ming Hung Tsang	
Date	Name: Ming-Hung TSENG	(Last name: TSENG)
2016. 7.19 Date	Hung-yi W.	
Date	Mane: Hung-Yi KUO	(Last name: KUO)

PATENT REEL: 046887 FRAME: 0515

RECORDED: 09/17/2018