PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT5523011

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MING-HO TSAI	03/13/2019
JYUN-HONG CHEN	03/12/2019
CHUN-CHEN LIU	03/18/2019
YU-NU HSU	03/18/2019
PENG-REN CHEN	03/12/2019
WEN-HAO CHENG	03/13/2019
CHI-MING TSAI	03/13/2019

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LTD.	
Street Address:	NO.8, LI-HSIN RD. 6, HSINCHU SCIENCE PARK	
City:	HSINCHU	
State/Country:	TAIWAN	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16353425

CORRESPONDENCE DATA

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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:	18506-1365	
NAME OF SUBMITTER:	ANTHONY KING	
SIGNATURE:	/Anthony King/	
DATE SIGNED:	05/14/2019	

Total Attachments: 3

PATENT REEL: 049177 FRAME: 0886 source=US7601-Assignment#page1.tif
source=US7601-Assignment#page2.tif
source=US7601-Assignment#page3.tif

PATENT REEL: 049177 FRAME: 0887



ASSIGNMENT

WHEREAS, I(we). TSAI. MING-HO, CHEN, JYUN-HONG. LIU, CHUN-CHEN, HSU, YU-NU, CHEN, PENG-REN, CHENG, WEN-HAO and TSAI, CHI-MING whose post office address(es) appear(s) below, hereinafter referred to as ASSIGNOR, have invented certain new and useful invention entitled

SEMICONDUCTOR DEVICE MANUFACTURING METHOD AND ASSOCIATED SEMICONDUCTOR DIF

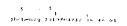
SEMICOM	OCTOR DIE
(hereinafter referred to as the INVENTION) for which an a is executed on even date herewith unless at least one of tl ☐ United States Design Patent was ☐ executed on:	pplication for United States Letters Patent /Utility Patent ne following is checked:
WHEREAS, TAIWAN SEMICONDUCTOR MAN address is NO.8, LI-HSIN RD. 6, HSINCHU S hereinafter referred to as ASSIGNEE, is desirous of acquir the United States and its territorial possessions;	CIENCE PARK, HSINCHIL TAIWAN ROC
NOW, THEREFORE, for good and valuable consider ASSIGNOR, by these presents do sell, assign and transfer and to said INVENTION and application throughout the Patent granted on any division, continuation, continuation terms for which the same may be granted, including all pre-	United States of America, including any and all Letter, a-in-part and reissue of said application for the full term of
ASSIGNOR further covenants that no assignments, s or entered into which would conflict with this Assignmen	ale, agreement or encumbrance has been or will be made t;
ALSO, ASSIGNOR hereby agrees to execute any docu filing, prosecution and maintenance of said application of said INVENTION, including additional documents that massid INVENTION, all without further consideration. ASSIGNEE'S expense, to identify and communicate to ASSIGNEE that lawfully may be maintenance, litigation and defense of any patent applications. ASSIGNOR'S obligations under this instandininistrators and other legal representatives.	by be required to affirm the rights of ASSIGNEE in and to SIGNOR also agrees, without further consideration and a SIGNEE at ASSIGNEE'S request documents and information assession or control, and to provide further assurances and be required of ASSIGNOR in respect of the prosecution dication or patent encompassed within the terms of this
and all Letters Patent referred to above to ASSIGNEE, as t the same, for ASSIGNEE'S sole use and behoof; and for th successors, to the full end of the term for which such L same would have been held by ASSIGNOR had this assign	te use and behoof of ASSIGNEE'S legal representatives and etters Patent may be granted, as fully and entirely as the ment and sale not been made.
Assignor Name TSAI, MING-HO TSAI, MING-HD	Address 15F1, NO.35-1, TIANMEI 3RD ST., EAST DIST., HSINCHU CITY 300, TAIWAN (R.O.C.)
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Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

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Signature of Witness (optional)	Signature of Witness (Optional)

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Name of Witness Coptional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

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Signature of Assignor (X) ZHEW, PENG – RTW Name of Witness (optional)	Date of Signature (X) \(\gamma \rightarrow \left(\qu
Signature of Witness (optional)	Signature of Witness (Optional)

Assignor Name CHENG, WEN-HAO	Address 17F, NO. 151, GUANXIN NORTH ROAD, HSINCHU CITY, TAIWAN (R.O.C.)
Signature of Assamor (X)	$\begin{array}{c} \text{Date of Signature} > 0 \mid 9 \mid . \rightarrow_{a}, \mid > \\ \text{(X)} \end{array}$
Name of Whiess (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)



Assignor Name TSAI, CHI-MING	9F-2, NO.280, MINSHENG W. RD., TAIPEI 103, TAIWAN (R.O.C.)
Signature of Assignor (X) Name of Witness (optional)	Date of Signagues (X) / 03 / 13
Signature of Witness (optional)	Name of Witness (optional) Signature of Witness (Optional)