504716374 01/05/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4763096

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHIH-LONG CHIANG	11/06/2017

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
Street Address:	8, LI-HSIN RD. 6, HSINCHU SCIENCE PARK
City:	HSINCHU
State/Country:	TAIWAN

PROPERTY NUMBERS Total: 1

Property Type	Number				
Application Number:	15707990				

CORRESPONDENCE DATA

Fax Number:

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.

Email: cthomas@pattersonsheridan.com,

psdocketing@pattersonsheridan.com

Correspondent Name: PATTERSON & SHERIDAN, LLP

Address Line 1: 24 GREENWAY PLAZA

Address Line 2: SUITE 1600

Address Line 4: HOUSTON, TEXAS 77046

ATTORNEY DOCKET NUMBER:	P20170647US
NAME OF SUBMITTER:	JASON C. HUANG
SIGNATURE:	/Jason C. Huang/
DATE SIGNED:	01/05/2018

Total Attachments: 2

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PATENT 504716374 REEL: 044547 FRAME: 0393

Dkt. No. P20170647US00



ASSIGNMENT FOR APPLICATION FOR PATENT

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WHEREAS:	02.

Names and Addresses of Inventors:

1)	JU-LI HUANG	2)	CHIH-LONG CHIANG
	No. 8, Li-Hsin Rd. 6,		No. 8, Li-Hsin Rd. 6,
	Hsinchu Science Park		Hsinchu Science Park
	Hsinchu 300-78		Hsinchu 300-78
	TAIWAN		TAIWAN
	YING-LIANG CHUANG	4)	MING-HSI YEH
3)	No. 8, Li-Hsin Rd. 6,		No. 8, Li-Hsin Rd. 6,
1	Hsinchu Science Park		Hsinchu Science Park
	Hsinchu 300-78		Hsinchu 300-78
	TAIWAN		TAIWAN
	KUO BIN HUANG		
	No. 8, Li-Hsin Rd. 6,		
5)	Hsinchu Science Park		
′	Hsinchu 300-78		
	TAIWAN		

(hereinafter referred to as Assignors), have invented a certain invention entitled:

HIGH-K METAL GATE AND METHOD FOR FABRICATING THE SAME

for	which a	application 1	for Letters	Patent in	ı the	United	States	was	filed	on	 under
Serial No		; an	ıd								

WHEREAS, Taiwan Semiconductor Manufacturing Co., Ltd., having a place of business at No. 8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu 300-78, TAIWAN R.O.C. (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a conventional, division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

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PATENT REEL: 044547 FRAME: 0394



- 2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filling and prosecuting substitute, conventional, divisional, continuing or additional applications covering said Invention; (d) for filling and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.
- 3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.
- 4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.
- 5. In the event that the filing date and/or Application No. of said Invention are not entered above at the time Assignors execute this document, and if such information is deemed necessary, Assignors hereby authorize and request the attorney/agent(s) of **Patterson Sheridan**, **LLP**, to insert above the filing date and/or Application No. of said application.

IN WITNESS WHEREOF, the said Assignor's have executed and delivered this instrument to said Assignee on the dates indicated below.

1) 06/11/2017	Ju-li Huang
2) <u>Vb/11/2017</u>	Chih-hong Chiang
3) <u>06/11/2017</u> Date	Ying-Liang Chuang YING-LIANG CHUANG
4) <u>06/11/201</u> 7 Date	Ming-Hsi Yet
5)	KUO BIN HUANG

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RECORDED: 01/05/2018

2

PATENT REEL: 044547 FRAME: 0395