## 504329465 04/20/2017

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4376151

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
SHICH-CHANG SUEN	12/31/2013
LI-CHIEH WU	12/31/2013
CHI-JEN LIU	12/31/2013
HE HUI PENG	01/02/2014
LIANG-GUANG CHEN	12/31/2013
YUNG-CHUNG CHEN	12/31/2013

#### **RECEIVING PARTY DATA**

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.	
Street Address:	NO. 8, LI-HSIN RD. 6	
Internal Address:	SCIENCE-BASED INDUSTRIAL PARK	
City:	HSIN-CHU	
State/Country:	TAIWAN	
Postal Code:	300-77	

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15492034

#### **CORRESPONDENCE DATA**

**Fax Number:** (214)200-0853

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.

using a lax humber, if provided, if that is unsuccessful, it will be sent vide

**Phone:** 2146515000

**Email:** ipdocketing@haynesboone.com

Correspondent Name: HAYNES AND BOONE, LLP IP SECTION

Address Line 1: 2323 VICTORY AVENUE

Address Line 2: SUITE 700

Address Line 4: DALLAS, TEXAS 75219

ATTORNEY DOCKET NUMBER:	2013-1007/24061.2641US03
NAME OF SUBMITTER:	DELL WHITTON
SIGNATURE:	/Dell Whitton/
DATE SIGNED:	04/20/2017

504329465 PATENT REEL: 042073 FRAME: 0410

# Total Attachments: 3

source=2641US03 Assignment#page1.tif source=2641US03 Assignment#page2.tif source=2641US03 Assignment#page3.tif

PATENT REEL: 042073 FRAME: 0411

Docket No.: 2013-1007/24061.2641 Customer No.: 000042717

#### ASSIGNMENT

WI	HEF	REA	S,	we,
----	-----	-----	----	-----

	,		
(1)	Shich-Chang Suen	of	21F1, No.2, Lane 175, Wuling Road, North District, Hsinchu City 300, Taiwan (R.O.C.)
(2)	Li-Chieh Wu	of	16F5, No.1, Lane 175, Wuling Road, North District, Hsinchu City 300, Taiwan (R.O.C.)
(3)	Chi-Jen Liu	of	Rm.3, 13F., No.6, Alley. 62, Lane 411, Sec.1 Neihu Road, Neihu District, Taipei City 114, Taiwan (R.O.C)
(4)	He Hui Peng	of	No.10, Lane 38, Xishi Street, Changhua City, Changhua County 500, Taiwan (R.O.C.)
(5)	Liang-Guang Chen	of	No.393, Sec. 2, Gongdao 5th Road, East District, Hsinchu City 300, Taiwan (R.O.C.)
(6)	Yung-Chung Chen	of <sup>.</sup>	No.55, Alley. 18, Lane 85, Fuqun Street, Xiangshan District, Hsinchu City 300, Taiwan (R.O.C.)

have invented certain improvements in

### METHOD FOR METAL GATE SURFACE CLEAN

for which we have executed an application for Letters Patent of the United States of America,

	of even date filed herewith; and
X	filed on January 10, 2014, and assigned application number 14/152,497; and

WHEREAS, we authorize the attorney of record to update this document to include Patent Office information as deemed necessary (i.e., filing date, serial number, etc.);

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd., ("TSMC"), No. 8, Li-Hsin Rd. 6, Science-Based Industrial Park Hsin-Chu, Taiwan 300-77, Republic of China. is desirous of obtaining the entire right, title, and interest in, to and under the said invention and the said application in the United States of America and in any and all countries foreign thereto;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and other good and valuable consideration, we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said TSMC, its successors, legal representatives, and assigns, the entire right, title, and interest in, to and under the said invention, and the said application, and all divisional, renewal, substitutional, and continuing applications thereof, and all Letters Patent of the United States of America which may be granted thereon and all reissues and extensions thereof, and all

- 1 -

R-346530\_1.docx

Docket No.: 2013-1007/24061.2641 Customer No.: 000042717

applications for Letters Patent which may be filed for said invention in any country or countries foreign to the United States of America, and all extensions, renewals, and reissues thereof, and all prior patents and patent applications from which a filing priority of the above-described patent application may be obtained, including the right to collect past damages; and we hereby authorize and request the Commissioner of Patents of the United States of America, and any official of any country or countries foreign to the United States of America, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said invention to the said TSMC, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to said TSMC, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, renewal, substitutional, continuing, and reissue applications, make all rightful declarations and/or oaths and generally do everything possible to aid the said TSMC, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

Inventor Name:	Shich-Chang Suen		
Residence Address:	21F1, No.2, Lane 175, Wuling Road, North District, Hsinchu City 300, Taiwan (R.O.C.)		
Dated: 0/3.	12-31	Shich-Chang Suen Inventor Signature	
Inventor Name:	Li-Chieh Wu		
Residence Address:	16F5, No.1, Lane 175, Wuling Road, North District., Hsinchu City 300, Taiwan (R.O.C.)		
Dated: 2013-12	<u> </u>	/ Li-Chieh Wu Inventor Signature	
Inventor Name:	Chi-Jen Liu		
Residence Address:	Rm.3, 13F., No.6, Alley. 62, Lane 411, Sec.1 Neihu Road, Neihu District, Taipei City 114, Taiwan (R.O.C)		
Dated: >0/3. /	2.3/	Chi-Jen Con	
		Inventor Signature	

Docket No.: 2013-1007/24061.2641

Customer No.: 000042717

Inventor	Name

He Hui Peng

Residence Address:

No.10, Lane 38, Xishi Street, Changhua City

Changhua County 500, Taiwan (R.O.C.)

Inventor Name:

Liang-Guang Chen

Residence Address:

No.393, Sec. 2, Gongdao 5th Road, East District,

Hsinchu City 300, Taiwan (R.O.C.)

V Clay - 6may Chen Inventor Signature

Inventor Name:

Yung-Chung Chen

Residence Address:

No.55, Alley. 18, Lane 85, Fuqun Street

Xiangshan District, Hsinchu City 300, Taiwan (R.O.C.)

Dated: Yung - Chung Chen
12/31 20/3

- 3 -