503804713 04/28/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3851360

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA	·	
	Name	Execution Date
MATT YEH		03/02/2009
SHUN WU LIN		03/02/2009
RYAN CHIA-JEN CHEN		03/05/2009
YI-HSING CHEN		03/03/2009
CHIEN-HAO CHEN		03/03/2009
DONALD Y. CHAO		03/05/2009
KUO-BIN HUANG		03/03/2009
CHI-CHUN CHEN		03/17/2009

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.
Street Address: NO. 8, LI-HSIN ROAD 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:	14673024

CORRESPONDENCE DATA

Fax Number:(214)651-5940Correspondence 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.				
Phone:	214-651-5000			
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: 24061.2367US04		24061.2367US04		
NAME OF SUBMITTER:		LADONNA JOHNSON		

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SIGNATURE:	/LaDonna Johnson/
DATE SIGNED:	04/28/2016
Total Attachments: 8	· · ·
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Docket No.: 2008-0465 (0457, 0458, 0459) / 24061.1096 Customer No.: 42717

ASSIGNMENT

WHEREAS, we,

(1)	Matt Yeh	of	6F, 6, Ching-San Street 28 Hsinchun, Taiwan, R.O.C.
(2)	Shun Wu Lin	of	No. 28, Jiande Street, East District Taichung City 401, Taiwan, R.O.C.
(3)	Chi-Chun Chen	of	8F, No. 56, Chang Sheng Road, Gushan Chiu Kaohsiung, Taiwan, R.O.C.
(4)	Ryan Chia-Jen Chen	of	No. 182; Minchuan Road Chiayi, Taiwan, R.O.C.
(5)	Yi-Hsing Chen	of	, Taiwan, R.O.C.
(6)	Chien-Hao Chen	of'	No: 37 Sel 8 Chuangbin Road Chuangwei Fownship, Ilan County, Taiwan, R.O.C.
(7)	Donald Y. Chao	of	12F-3, No. 272, Guangfu Road, Sec. 1 Hsinchu City 300, Taiwan, R.O.C.
(8)	Kuo-Bin Huang	of	, Taiwan, R.O.C.

have invented certain improvements in

METHOD OF PATTERNING A METAL GATE OF SEMICONDUCTOR DEVICE

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

_____ of even date filed herewith; and ______ filed on ______ and assigned application no. ______ 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 One Dollar (\$1.00) and other 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 sot over, and by these presents do hereby sell, assign, transfer and set over, unto the said TSMC, its successors, legal representatives, and

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Docket No.: 2008-0465 (0457, 0458, 0459) / 24061.1096 Customer No.: 42717

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 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 nate is 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:	Matt Yeh	
Residence Address:	6F, 6, Ching San Street 28 Hsinchun, Taiwan R.O.C.	
Dated: <u>3 '09</u>		Mart Veta Inventor Signature
Inventor Name:	Shun Wu Lin	
Residence Address:	No. 28, Jiande Street, East D Taichung City 401, Taiwan, I	istrict R.O.C.
Dated: 3/2 10	9	Shun Wu hin.
Dated:		Inventor Signature
	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
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<u>13</u> 3 Chi-Chun Chen Inventor Name: 8F, No. 56, Chang Sheng Road, Gushan Chiu **Residence Address:** Kaohsiung, Taiwan, R.O.C. . · .. Dated: Inventor Signature Ryan Chia-Jen Chen Inventor Name: No. 182, Minchuan Road 17 Residence Address: Chiayi, Taiwan, R.O.C. 3/5/2009' Dated: Inventor Signature Yi-Hsing Chen Inventor Name: **Residence Address:** Taiwan, R.O.C. 3/> 771 Dated: entor Signature Chien-Hao Chen Inventor Name: No. 37, Sec. 6, Chuangbin Road · '• ' Residence Address: Chuangwei Township, Ilan County, Taiwan, R.O.C. Chion - Hao Chon Inventor Signature 2000 Dated: مرد بر مرتبسون در در مرتبسون

Docket No.: 2008-0465 (0457, 0458, 0459) / 24061.1096 Customer No.: 42717

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Inventor Name:	Donald Y. Chao	
Residence Address:	12F-3, No. 272, Guangfu Road Hsinchu City 300, Taiwan, R.	
Dated: 315	<u>'07</u>	Downld Y. Chow Inventor Signature
Inventor Name:	Kuo-Bin Huang	
Residence Address:	, Taiwan, R.O.C.	
Dated: <u>3/3</u> 69	5.4 1975 55	<u>Kuo – Bin</u> Huang Inventor Signature

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65 (0457, 0458, 0459) / 24061.1096 Docket No.: 2008

Customer No.: 42717

ASSIGNMENT

(1)	Matt Yeh	of	6F, 6, Ching-San Street 28 Hsinchun, Taiwan, R.O.C.
(2)	Shun Wu Lin	of	No. 28, Jiande Street, East District Taichung City 401, Taiwan, R.O.C.
(3)	Chi-Chun Chen	of	8F, No. 56, Chang Sheng Road, Gushan Chiu Kaohsiung, Taiwan, R.O.C.
(4)	Ryan Chia-Jen Chen	of	No. 182; Minchuan Road Chiayi, Taiwan, R.O.C.
(5)	Yi-Hsing Chen	of	, Taiwan, R.O.C.
(6)	Chien-Hao Chen	of'	No. 37, See 6, Chuangbin Road Chuangwei Township, Ilan County, Taiwan, R.O.C.
(7)	Donald Y. Chao	of	12F-3, No. 272, Guangfu Road, Sec. 1 Hsinchu City 300, Taiwan, R.O.C.
(8)	Kuo-Bin Huang	of	, Taiwan, R.O.C.

have invented certain improvements in

METHOD OF PATTERNING A METAL GATE OF SEMICONDUCTOR DEVICE

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

WHEREAS, we.

经济保守 of even date filed herewith; and filed on ______ and assigned application no. _____ 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 One Dollar (\$1.00) and other 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

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PATENT REEL: 038414 FRAME: 0597

R-1096 - Assignment

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 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: Matt Y	eh
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Residence Address:	6F, 6, Ching-San Street 28
	Hsinchun, Taiwan, R.O.C.

Dated:_____

Inventor Signature

Inventor Name: Shun Wu Lin

Residence Address: No. 28, Jiande Street, East District Taichung City 401, Taiwan, R.O.C.

Dated:

Inventor Signature

Docket No.: 2008-0465 (0457, 0458, 0459) / 24061.1096 Customer No.: 42717

Inventor Name:	Chi-Chun Chen	
Residence Address:	8F, No. 56, Chang Sheng Road, Kaohsiung, Taiwan, R.O.C.	· }
Dated: <u>03-17-</u>	-09	Chachen Char Inventor Signature
Inventor Name:	Ryan Chia-Jen Chen	
Residence Address:	No. 182, Minchuan Road Chiayi, Taiwan, R.O.C.	
Dated:		La de la companya a complete por que que a principal que a complete a dans que en que en que en que a complete
		Inventor Signature
Inventor Nume:		
Residence Address:	, Taiwa	n, R.O.C.
Dated:		
		Inventor Signature
Inventor Name:	Chien-Hao Chen	
Residence Address:	No. 37, Sec. 6, Chuangbin Roac Chuangwei Township, Ilan Cou	l nty, Taiwan, R.O.C.
Dated:	and the grad grad and grad and grad a second strategy	
٠ 	·	Inventor Signature

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Donald Y. Chao	
	Inventor Signature
Kuo-Bin Huang	
, Taiwan, R.O.C.	
	Inventor Signature
	12F-3, No. 272, Guangfu Road, Hsinchu City 300, Taiwan, R.O.

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RECORDED: 04/28/2016