504913068 05/14/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HARRY-HAK-LAY CHUANG	04/26/2013
BAO-RU YOUNG	04/26/2013
WEI CHENG WU	04/26/2013
MENG-FANG HSU	04/26/2013
KONG-PIN CHANG	04/26/2013
CHIA MING LIANG	04/26/2013

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:	15978579

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.

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:	2012-0827/24061.2292US02
NAME OF SUBMITTER:	BRIAN D. GRAHAM
SIGNATURE:	/Brian D. Graham/
DATE SIGNED:	05/14/2018

504913068 PATENT REEL: 045795 FRAME: 0785

Total Attachments: 3

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PATENT REEL: 045795 FRAME: 0786

Docket No.: 2012-0827/24061.2292

Customer No.: 000042717

ASSIGNMENT

WHEREAS, we,

(1)	Harry-Hak-Lay Chuang	of	51 Paya Lebar Crescent, Sinagpore 536176
(2)	Bao-Ru Young	of	No. 7, Lane 1, Liujia 2nd Street Zhubei City Hsinchu County 302, Taiwan R.O.C.
(3)	Wei Cheng Wu	of	10F., No.196, Sec. 1, Shengli 7th St. Zhubei City Hsinchu County 302, Taiwan R.O.C.
(4)	Meng-Fang Hsu	of	12F-1, No. 391,Sec. 2,Gongdao 5th Road East District Hsinchu City 300, Taiwan R.O.C.
(5)	Kong-Pin Chang	of	No. 8, Ln. 143, Wenhua Street Caotun Township Nantou Country 542, Taiwan R.O.C.
(6)	Chia Ming Liang	of	2F, Alley 22,Lane 66, Sec. 5 Nanging E. Road, Shonshan District Taipei, Taiwan R.O.C.

have invented certain improvements in

A METHOD FOR FABRICATING A SEMICONDUCTOR DEVICE

for which we have executed an application for Letters Patent of the United States of America on March 11, 2013, as U.S. Serial No. 13/793,220; 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 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

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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:	Harry-Hak-Lay Chuang
Residence Address:	51 Paya Lebar Crescent, Sinagpore 536176
Dated: 2013/4/2	Inventor Signature
Inventor Name:	Bao-Ru Young
Residence Address:	No. 7, Lane 1, Liujia 2nd Street Zhubei City, Hsinchu County 302, Taiwan R.O.C.
Dated: > 6/3, 4, 2	PR Voury, Inventor Signature
Inventor Name:	Wei Cheng Wu
Residence Address:	10F., No.196, Sec. 1, Shengli 7th St. Zhubei City, Hsinchu County 302, Taiwan R.O.C.
Dated:	. 26 V Wei Cheng In Inventor Signature

Docket No.: 2012-0827/24061.2292

Customer No.: 000042717

Inventor Name:			
D 1.1			

Meng-Fang Hsu

Residence Address:

12F-1, No. 391, Sec. 2, Gongdao 5th Road, East District

Hsinchu City 300, Taiwan R.O.C.

Dated: 2013. 4.3

Meng-Fang Hsn

Inventor Name:

Kong-Pin Chang

Residence Address:

No. 8, Ln. 143, Wenhua Street, Caotun Township

Nantou Country 542, Taiwan R.O.C.

Dated: 2013.04.26

Kong - Pin Chang

Inventor Name:

Chia Ming Liang

Residence Address:

2F, Alley 22, Lane 66, Sec. 5, Nanging E. Road, Shonshan District

Taipei, Taiwan R.O.C.

Dated: 201

2017. 04. 76

Inventor Signature

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