PATENT ASSIGNMENT COVER SHEET

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Stylesheet Version v1.2

EPAS ID: PAT3554233

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YU-CHIH LIU	07/11/2015
CHIEN-KUO CHANG	07/01/2015
CHI-YANG YU	06/30/2015
JING RUEI LU	06/30/2015
CHIH-HAO LIN	07/01/2015

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:	14754260

CORRESPONDENCE DATA

Fax Number: (214)651-5940

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: 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:	24061.3134US01
NAME OF SUBMITTER:	LADONNA JOHNSON
SIGNATURE:	/LaDonna Johnson/
DATE SIGNED:	10/02/2015

Total Attachments: 5
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source=3134US01_Assignment#page5.tif

Docket No.: P20150313US00/24061.3134US01
Customer No.: 000042717

ASSIGNMENT

WHEREAS, we,

(1)	Yu-Chih Liu	of	Taipei City, Taiwan, Republic of China
(2)	Chien-Kuo Chang	of	Hsinchu County, Taiwan, Republic of China
(3)	Chi-Yang Yu	of	Taoyuan County, Taiwan, Republic of China
(4)	Jing Ruei Lu	of	Taipei City, Taiwan, Republic of China
(5)	Chih-Hao Lin	of	Hsinchu City, Taiwan, Republic of China

have invented certain improvements in

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for which we have filed an application for Letters Patent of the United States of America on June 29, 2015, as U.S. Serial No. 14/754,260; 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 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

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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: Yu-Chih Liu

Residence Address: 2F., No. 8, Lane 71, Section 2, Anhe Road, Daan District
Taipei City 106, Taiwan, Republic of China

Dated: 2015/07/11

Yu Chih Liu
Inventor Signature

Inventor Name: Chien-Kuo Chang

Residence Address: 14F., No. 31, Shengli 6th Street, Zhubei City
Hsinchu County 302, Taiwan, Republic of China

Dated: ____________

Inventor Signature

Inventor Name: Chi-Yang Yu

Residence Address: No. 15, Andong Street, Zhongli City, Taoyuan County 320
Taiwan, Republic of China

Dated: ____________

Inventor Signature

Docket No.: P20150313US00/24061.3134US01
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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: Yu-Chih Liu

Residence Address: 2F., No. 8, Lane 71, Section 2, Anhe Road, Daan District
Taipei City 106, Taiwan, Republic of China

Dated:________________ ________________
Inventor Signature

Inventor Name: Chien-Kuo Chang

Residence Address: 14F., No. 31, Shengli 6th Street, Zhubei City
Hsinchu County 302, Taiwan, Republic of China

Dated: 2015. 7. 1 Chien-kuo Chang
Inventor Signature

Inventor Name: Chi-Yang Yu

Residence Address: No. 15, Andong Street, Zhongli City, Taoyuan County 320
Taiwan, Republic of China

Dated: 2015. 6. 30 Chi-Yang Yu
Inventor Signature

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Inventor Name: Jing Ruei Lu

Residence Address: 4F, No. 31, Lane 125, Shezi Street, Shilin District
Taipei City 111, Taiwan, Republic of China

Dated: 2015, 06, 30.

Jing Ruei Lu
Inventor Signature

Inventor Name: Chih-Hao Lin

Residence Address: No. 950-1, Minghu Road, East District
Hsinchu City 300, Taiwan, Republic of China

Dated: Chih-Hao Lin 2015/7/1

Chih-Hao Lin
Inventor Signature