### 503686882 02/11/2016

# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
KER HSIAO HUO	11/08/2012
CHIH-CHANG CHENG	11/08/2012
RU-YI SU	11/08/2012
JEN-HAO YEH	11/08/2012
FU-CHIH YANG	11/09/2012
CHUN-LIN TSAI	11/09/2012

#### **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:	15018605

#### **CORRESPONDENCE DATA**

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ATTORNEY DOCKET NUMBER:	20111201/24061.3280US02
NAME OF SUBMITTER:	JANIE MARTINEZ-HOLM
SIGNATURE:	/Janie Martinez-Holm/
DATE SIGNED:	02/11/2016

503686882 PATENT REEL: 037706 FRAME: 0904

# **Total Attachments: 2**

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PATENT REEL: 037706 FRAME: 0905

### ASSIGNMENT

In consideration of the premises and other good	and valuable consideration	in hand paid, th	e receipt and sur	fficiency of
which is hereby acknowledged, the undersigned,		• •	•	•

1) Ker Hsiao HUO

4) Jen-Hao YEH

2) Chih-Chang CHENG

5) Fu-Chih YANG

3) Ru-Yi SU

6) Chun Lin TSAI

who has made a certain new and useful invention, hereby sells, assigns and transfers unto TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD., having a place of business at No. 8, Li-Hsin Rd. VI, Hsinchu Science Park, Hsinchu 300, Taiwan R.O.C.

its successors and assigns (hereinafter designated "ASSIGNEE") the entire right, title and interest for the United States of America as defined in 35 U.S.C. 100 in the invention entitled

## INSULATED GATE BIPOLAR TRANSISTOR STRUCTURE HAVING LOW SUBSTRATE

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(a)	for which an application for United States Letters Patent was filed on 2012-11-09	. and	identified	Ьv
	United States Patent Application No. 13/673,734; or	,		-,

(b) for which an application for United States Letters Patent was executed on \_\_\_\_\_

and the undersigned hereby authorizes and requests the United States Commissioner of Patents and Trademarks to issue any and all United States Letters Patent which may be granted therefore and any and all extensions, divisions, reissues, continuations, or continuations-in-part thereof, and the right to all benefits under the International Convention for the Protection of Industrial Property to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned agrees that the attorneys of record in said application shall hereafter act on behalf of said ASSIGNEE;

AND the undersigned hereby agrees to transfer a like interest, and to render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, upon request of the said ASSIGNEE, its successors, assigns and legal representatives, and without further remuneration, in and to any improvements, and applications for patent based thereon, growing out of or related to the said invention; and to execute any papers by the said ASSIGNEE, its successors, assigns and legal representatives, deemed essential to ASSIGNEE's full protection and title in and to the invention hereby transferred.

SIGNED on the date indicated aside my signature:

1) _ V Ker Hsiao HVO
Name: Ker-Hsiao HUO
2) V Chih-chang Cheng
Name: Chih-Chang CHENG
3) r Ru-(i Su
Name: Ru-Yi SU
4) V Jen Haw Jeh
Name: Jen-Hao YEH

Date:

Date:

> >0(2, 11, 0 8)

Date:

Date:

Date:

5) V Fa-Chih Yang
Name: Fu-Chih YANG
6) V Chun-La Tsai
Name: Chun Lin TSAI

Date: Date:

**PATENT REEL: 037706 FRAME: 0907** 

**RECORDED: 02/11/2016**