PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE: **NEW ASSIGNMENT NATURE OF CONVEYANCE: ASSIGNMENT**

CONVEYING PARTY DATA

Name	Execution Date
Wei Yu MA	09/29/2011
Kuo-Ji CHEN	09/29/2011
Fang-Tsun CHU	09/29/2011
Ta-Pen GUO	10/04/2011

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.	
Street Address:	No. 8, Li-Hsin Rd. VI, Hsinchu Science Park	
City:	Hsinchu	
State/Country:	TAIWAN	
Postal Code:	300	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13272389

CORRESPONDENCE DATA

(703)518-5499 Fax Number: Phone: 7036841111

Email: sramunto@ipfirm.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via

US Mail.

Correspondent Name: Lowe Hauptman Ham & Berner, LLP (TSMC)

Address Line 1: 1700 Diagonal Road, Suite 300 Address Line 4: Alexandria, VIRGINIA 22314

ATTORNEY DOCKET NUMBER: T5057-R473

NAME OF SUBMITTER: Randy A. Noranbrock

Total Attachments: 1

source=efiledassgn#page1.tif

501689684

PATENT REEL: 027054 FRAME: 0899

ASSIGNMENT

In consideration of the premises and other good ar	nd valuable consideration i	in hand paid,	the receipt and	l sufficiency of
which is hereby acknowledged, the undersigned,		• 1		,

1) Wei Yu MA

(b)

4) Ta-Pen GUO

- 2) Kuo-Ji CHEN
- 3) Fang-Tsun CHU

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

SEMICONDUCTOR INTEGRATED CIRCUIT HAVING A RESISTOR AND METHOD OF FORMING THE SAME

for which an application for United States Letters Patent was executed on ______,

(a)	for which an application for United States Letters Patent was filed or States Patent Application No. $\underline{13/272,389}$; or	10-13-2011	and	identified	by	United
.,	States Patent Application No. 13/272, 389 ; or	·	ana	identifica	Бy	Oili

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) Wei Yu WA	1 201/09/29
Name: Wei Yu MA	Date:
2) Kan - J. Chn	2011/09/29
Name: Kuo-Ji CHEN	Date:
3)	·
Name: Fang-Tsun CHU	Date:
4) Cary Tru Chr	Noll 109 (29)
Name: Ta-Pen GUO	Date:
and to	11/0/0X

PATENT REEL: 027054 FRAME: 0900

RECORDED: 10/13/2011