

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT														
NATURE OF CONVEYANCE:	ASSIGNMENT														
CONVEYING PARTY DATA															
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Chung-Ji LU</td> <td>05/21/2010</td> </tr> <tr> <td>Hung-Jen LIAO</td> <td>05/21/2010</td> </tr> <tr> <td>Cheng Hung LEE</td> <td>05/21/2010</td> </tr> <tr> <td>Derek C. TAO</td> <td>05/21/2010</td> </tr> <tr> <td>Annie-Li-Keow LUM</td> <td>05/21/2010</td> </tr> <tr> <td>Hong-Chen CHENG</td> <td>05/21/2010</td> </tr> </tbody> </table>		Name	Execution Date	Chung-Ji LU	05/21/2010	Hung-Jen LIAO	05/21/2010	Cheng Hung LEE	05/21/2010	Derek C. TAO	05/21/2010	Annie-Li-Keow LUM	05/21/2010	Hong-Chen CHENG	05/21/2010
Name	Execution Date														
Chung-Ji LU	05/21/2010														
Hung-Jen LIAO	05/21/2010														
Cheng Hung LEE	05/21/2010														
Derek C. TAO	05/21/2010														
Annie-Li-Keow LUM	05/21/2010														
Hong-Chen CHENG	05/21/2010														
RECEIVING PARTY DATA															
<table border="1"> <tr> <td>Name:</td> <td>TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.</td> </tr> <tr> <td>Street Address:</td> <td>No. 8, Li-Hsin Rd. VI, Hsinchu Science Park</td> </tr> <tr> <td>City:</td> <td>Hsinchu</td> </tr> <tr> <td>State/Country:</td> <td>TAIWAN</td> </tr> <tr> <td>Postal Code:</td> <td>300</td> </tr> </table>		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				
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															
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13535075</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13535075										
Property Type	Number														
Application Number:	13535075														
CORRESPONDENCE DATA															
Fax Number:	(703)518-5499														
Phone:	7036841111														
Email:	tsmc@ipfirm.com														
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>															
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-R233A														

OP \$40.00 13535075

NAME OF SUBMITTER:

Randy A. Noranbrock

Total Attachments: 2

source=efiledassgn#page1.tif

source=efiledassgn#page2.tif

Jeyhu 2010/08/21 14:43:53

Docket No. T5057-R233

ASSIGNMENT

In consideration of the premises and other good and valuable consideration in hand paid, the receipt and sufficiency of which is hereby acknowledged, the undersigned,

- | | |
|-------------------|----------------------|
| 1) Chung-Ji LU | 4) Derek C. TAO |
| 2) Hung-Jen LIAO | 5) Annie-Li-Keow LUM |
| 3) Cheng Hung LEE | 6) Hong-Chen CHENG |

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

GENERATING AND AMPLIFYING DIFFERENTIAL SIGNALS

(a) for which an application for United States Letters Patent was filed on 7-20-10, and identified by United States Patent Application No. 12/839,575; 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) Chung-Ji LU
Name: Chung-Ji LU

05/21/2010
Date:

2) Hung-Jen LIAO
Name: Hung-Jen LIAO

05/21/2010
Date:

3) Cheng Hung LEE
Name: Cheng Hung LEE


05/21/2010
Date:

4) Derek C. TAO
Name: Derek C. TAO

5/21/2010
Date:

Jayla 2010/05/21 14:44:03

5) 
Name: Annie-Li-Keow LUM

1) 
Name: Hong-Chen CHENG

05/21/2010
Date:

05/21/2010
Date: