

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th style="width: 30%;">Execution Date</th> </tr> </thead> <tbody> <tr> <td>Steven SWEI</td> <td>03/04/2010</td> </tr> <tr> <td>Chih-Chang LIN</td> <td>03/04/2010</td> </tr> <tr> <td>Tien-Chun YANG</td> <td>03/04/2010</td> </tr> <tr> <td>Chan-Hong CHERN</td> <td>03/04/2010</td> </tr> <tr> <td>Ming-Chieh HUANG</td> <td>03/04/2010</td> </tr> </tbody> </table>		Name	Execution Date	Steven SWEI	03/04/2010	Chih-Chang LIN	03/04/2010	Tien-Chun YANG	03/04/2010	Chan-Hong CHERN	03/04/2010	Ming-Chieh HUANG	03/04/2010
Name	Execution Date												
Steven SWEI	03/04/2010												
Chih-Chang LIN	03/04/2010												
Tien-Chun YANG	03/04/2010												
Chan-Hong CHERN	03/04/2010												
Ming-Chieh HUANG	03/04/2010												
RECEIVING PARTY DATA													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Name:</td> <td>TAIWAN SEMICONDUCTOR MANUFACTURNG 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 MANUFACTURNG COMPANY, LTD.	Street Address:	No. 8, Li-Hsin Rd. VI, Hsinchu Science Park	City:	Hsinchu	State/Country:	TAIWAN	Postal Code:	300		
Name:	TAIWAN SEMICONDUCTOR MANUFACTURNG 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" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Property Type</th> <th style="width: 70%;">Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12706886</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12706886								
Property Type	Number												
Application Number:	12706886												
CORRESPONDENCE DATA													
<p>Fax Number: (703)518-5499 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 7036841111 Email: sramunto@ipfirm.com Correspondent Name: LOWE HAUPTMAN HAM & BERNER, LLP Address Line 1: 1700 DIAGONAL ROAD Address Line 2: SUITE 300 Address Line 4: ALEXANDRIA, VIRGINIA 22314</p>													
ATTORNEY DOCKET NUMBER:	T5057-K195												
NAME OF SUBMITTER:	Randy A. Noranbrock												

OP \$40.00 12706886

501148692

PATENT
REEL: 024237 FRAME: 0005

Total Attachments: 2

source=efiledassgn4-15-10#page1.tif

source=efiledassgn4-15-10#page2.tif

Docket No.: T5057-K195

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) Steven SWEI | 4) Chan-Hong CHERN |
| 2) Chih-Chang LIN | 5) Ming-Chieh HUANG |
| 3) Tien-Chun YANG | |

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, Taiwan 300, 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


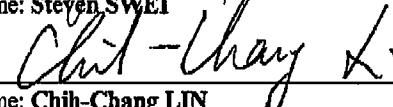
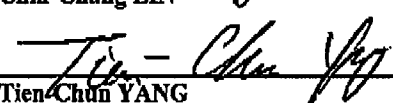
INTEGRATED CIRCUITS INCLUDING A CHARGE PUMP CIRCUIT AND OPERATING METHODS THEREOF

- (a) for which an application for United States Letters Patent was filed on February 17, 2010, and identified by United States Patent Application No. 12/706,886; 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 therefor 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) 
 Name: Steven SWEI
- 2) 
 Name: Chih-Chang LIN
- 3) 
 Name: Tien-Chun YANG

3/4/2010
 Date:

3/4/2010
 Date:

3/4/2010
 Date:

4) 
Name: Chan-Hong CHERN

3/4/2010
Date:

5) 
Name: Ming-Chieh HUANG

03/04/2010
Date: