

## 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>Bo-Jr HUANG</td> <td>03/22/2012</td> </tr> <tr> <td>Yi-Wei CHEN</td> <td>03/22/2012</td> </tr> <tr> <td>Kuan-Yu LIN</td> <td>03/22/2012</td> </tr> <tr> <td>Chin-Chou LIU</td> <td>03/22/2012</td> </tr> </tbody> </table>		Name	Execution Date	Bo-Jr HUANG	03/22/2012	Yi-Wei CHEN	03/22/2012	Kuan-Yu LIN	03/22/2012	Chin-Chou LIU	03/22/2012		
Name	Execution Date												
Bo-Jr HUANG	03/22/2012												
Yi-Wei CHEN	03/22/2012												
Kuan-Yu LIN	03/22/2012												
Chin-Chou LIU	03/22/2012												
RECEIVING PARTY DATA													
<table border="1"> <tr> <td>Name:</td> <td>Taiwan Semiconductor Manufacturing Co., Ltd.</td> </tr> <tr> <td>Street Address:</td> <td>No. 8, Li-Hsin Road 6</td> </tr> <tr> <td>Internal Address:</td> <td>Science-Based Industrial Park</td> </tr> <tr> <td>City:</td> <td>Hsin-Chu</td> </tr> <tr> <td>State/Country:</td> <td>TAIWAN</td> </tr> <tr> <td>Postal Code:</td> <td>300-77</td> </tr> </table>		Name:	Taiwan Semiconductor Manufacturing Co., 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
Name:	Taiwan Semiconductor Manufacturing Co., 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													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13437047</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13437047								
Property Type	Number												
Application Number:	13437047												
CORRESPONDENCE DATA													
<p>Fax Number: (215)689-4905          Phone: 215-979-1000          Email: jsjulianti@duanemorris.com  <i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i></p> <p>Correspondent Name: DUANE MORRIS LLP (TSMC) IP DEPARTMENT          Address Line 1: 30 SOUTH 17TH STREET          Address Line 4: PHILADELPHIA, PENNSYLVANIA 19103-4196</p>													
ATTORNEY DOCKET NUMBER:	N1085-00952												
NAME OF SUBMITTER:	Stephan P. Gribok												

CH \$40.00 13437047

Total Attachments: 4

source=EXECUTEDASSIGN#page1.tif

source=EXECUTEDASSIGN#page2.tif

source=EXECUTEDASSIGN#page3.tif

source=EXECUTEDASSIGN#page4.tif

Serial No. 13/437,047  
filed April 2, 2012

**ATTORNEY DOCKET NO.: 2011.1231/1085.952**

### **ASSIGNMENT AND AGREEMENT**

For value received, we, **Bo-Jr HUANG, Yi-Wei CHEN, Kuan-Yu LIN and Chin-Chou LIU**, hereby transfer to **Taiwan Semiconductor Manufacturing Co., Ltd.**, with its principal place of business located at No. 8, Li-Hsin Road 6, Science-Based Industrial Park, Hsin-Chu, Taiwan 300-77, Republic of China, and its successors, assigns and legal representatives, the entire right, title and interest, for the United States of America, in and to certain inventions related to **POWER LINE FILTER FOR MULTIDIMENSIONAL INTEGRATED CIRCUITS**, described in a non-provisional application and under any and all Letters Patent and any divisions, continuations, continuations-in-part, reexamination certificates, reissues, and extensions thereof, or claiming priority therefrom that may be granted in the United States for said inventions; and we also concurrently hereby sell, assign and transfer to Taiwan Semiconductor Manufacturing Co., Ltd. the entire right, title and interest in and to said inventions for all countries foreign to the United States, including all rights of priority arising from the application aforesaid, and all the rights and privileges under any and all forms of protection, including Letters Patent, that may be granted in said countries foreign to the United States for said inventions.

We authorize Taiwan Semiconductor Manufacturing Co., Ltd. to make application for such protection in its own name and maintain such protection in any and all countries foreign to the United States, and to invoke and claim for any application for patent or other form of protection for said inventions, without further authorization from us, any and all benefits, including the right of priority provided by any and all treaties, conventions, or agreements.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of Taiwan Semiconductor Manufacturing Co., Ltd. to apply for patent or other form of protection for said inventions and to claim the aforesaid benefit of the right of priority.

We request that any and all patents for said inventions be issued to Taiwan Semiconductor Manufacturing Co., Ltd. in the United States and in all countries foreign to the United States, or to such nominees as Taiwan Semiconductor Manufacturing Co., Ltd. may designate.

ATTORNEY DOCKET NO.: 2011.1231/1085.952

We agree that, when requested, we shall, without charge to Taiwan Semiconductor Manufacturing Co., Ltd. but at its expense, sign all papers, and do all acts which may be necessary, desirable or convenient in connection with said applications, patents, or other forms of protection.

Inventor No. 1

Dated: Mar. 22 / 2012

Bo-Jr Huang  
Bo-Jr HUANG

Residence:

No. 11, Qigu, Qigu District, Tainan City 724, Taiwan, R.O.C.

Inventor No. 2

Dated: 3.22, 2012

YI-WEI CHEN  
Yi-Wei CHEN

Residence:

No. 3, Lane 9, Tianjin 1<sup>st</sup> Street, Taichung City 404, Taiwan, R.O.C.

Inventor No. 3

Dated: 3.22, 2012

Kuan-Yu Lin  
Kuan-Yu LIN

Residence:

No. 3, Lane 6, Wufeng 1<sup>st</sup> Road, Zhudong Township, Hsinchu County 310, Taiwan, R.O.C.

ATTORNEY DOCKET NO.: 2011.1231/1085.952

Inventor No. 4

Dated: Mar 22, 2012

Chin Chou Liu  
Chin-Chou LIU

Residence:

No. 28, Alley 16, Lane 50, Singuo Street, Jhubei City, Hsinchu County 302, Taiwan,  
R.O.C.

