

## PATENT ASSIGNMENT

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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>Ker Hsiao HUO</td><td>07/17/2011</td></tr><tr><td>Ru-Yi SU</td><td>07/17/2011</td></tr><tr><td>Fu-Chih YANG</td><td>07/17/2011</td></tr><tr><td>Chun Lin TSAI</td><td>07/18/2011</td></tr><tr><td>Chih-Chang CHENG</td><td>07/18/2011</td></tr></tbody></table>	Name	Execution Date	Ker Hsiao HUO	07/17/2011	Ru-Yi SU	07/17/2011	Fu-Chih YANG	07/17/2011	Chun Lin TSAI	07/18/2011	Chih-Chang CHENG	07/18/2011	
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Chih-Chang CHENG	07/18/2011												
RECEIVING PARTY DATA													
Name:	Taiwan Semiconductor Manufacturing Co., Ltd.												
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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>13186660</td></tr></tbody></table>	Property Type	Number	Application Number:	13186660									
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Application Number:	13186660												
CORRESPONDENCE DATA													
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NAME OF SUBMITTER:	Mark J. Marcelli												
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**ATTORNEY DOCKET NO.: 2011.0463/1085.823**

**ASSIGNMENT AND AGREEMENT**

For value received, we, **Ker Hsiao HUO, Ru-Yi SU, Fu-Chih YANG, Chun Lin TSAI, and Chih-Chang CHENG**, 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 provisional application Serial No. 61/491,217 entitled **DRAIN TIP OPTIMIZATION IN HIGH VOLTAGE AND ULTRA-HIGH VOLTAGE SEMICONDUCTOR DEVICES**, filed May 29, 2011 and also to certain inventions related to **HIGH VOLTAGE AND ULTRA-HIGH VOLTAGE SEMICONDUCTOR DEVICES WITH INCREASED BREAKDOWN VOLTAGES** described in a non-provisional application claiming priority to provisional application Serial No. 61/491,217 entitled "Drain Tip Optimization in High Voltage and Ultra-High Voltage Semiconductor Devices, filed May 29, 2011, 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.: 2011.0463/1085.823**

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: ✓ 7/11 2011

✓ Ker Hsiao HUO  
Ker Hsiao HUO

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Dated: ✓ 8/1, 2011

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Dated: ✓ 7/17, 2011

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Dated: ✓ 7/18, 2011

✓ Chun Lin TSAI  
Chun Lin TSAI

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Inventor No. 5

Dated: ✓ 7/18, 2011

✓ Chih-Chang Cheng  
Chih-Chang CHENG

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