

PATENT ASSIGNMENT

Electronic Version v1.1

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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>Alex KALNITSKY</td><td>12/27/2009</td></tr><tr><td>Hsiao-Chin TUAN</td><td>12/22/2009</td></tr><tr><td>Liang-Kai HAN</td><td>01/13/2010</td></tr><tr><td>Uway TSENG</td><td>12/22/2009</td></tr><tr><td>Yuan-Chih HSIEH</td><td>12/24/2009</td></tr><tr><td>Hung-Hua LIN</td><td>12/24/2009</td></tr></tbody></table>		Name	Execution Date	Alex KALNITSKY	12/27/2009	Hsiao-Chin TUAN	12/22/2009	Liang-Kai HAN	01/13/2010	Uway TSENG	12/22/2009	Yuan-Chih HSIEH	12/24/2009	Hung-Hua LIN	12/24/2009
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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				
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PROPERTY NUMBERS Total: 1															
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Application Number:	12651322														
CORRESPONDENCE DATA															
Fax Number: (703)518-5499 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>															
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ATTORNEY DOCKET NUMBER:	T5057-Y173														

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PATENT
REEL: 024190 FRAME: 0812

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NAME OF SUBMITTER:

Yoon S. Ham

Total Attachments: 2

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Docket No.: T5057-Y173
TSMC2009-0642

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) Alex KALNITSKY | 4) Uway TSENG |
| 2) Hsiao-Chin TUAN | 5) Yuan-Chih HSIEH |
| 3) Liang-Kai HAN | 6) Hung-Hua LIN |

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. 6, Hsinchu Science Park, Hsinchu, Taiwan 300-77

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

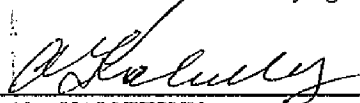
POWER DEVICES HAVING REDUCED ON-RESISTANCE AND METHODS OF THEIR MANUFACTURE

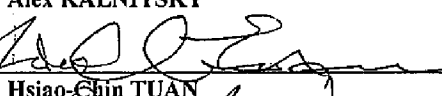
- (a) for which an application for United States Letters Patent was filed on 12-31-09 and identified by United States Patent Application No. 12/651,322; or
- (b) for which an application for United States Letters Patent was executed on _____,

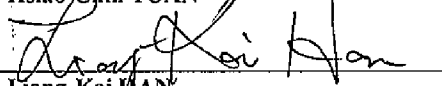
and the undersigned hereby authorizes and requests the United States Commissioner of Patents and Trademarks to issue any and all United States Letters Patent which may be granted therefore and any and all extensions, divisions, reissues, continuations, or continuations-in-part thereof, and the right 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;

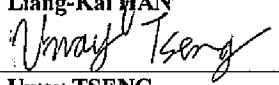
AND the undersigned hereby agrees to transfer a like interest, and to render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, upon request of the said ASSIGNEE, its successors, assigns and legal representatives, 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) 
Name: Alex KALNITSKY

2) 
Name: Hsiao-Chin TUAN

3) 
Name: Liang-Kai HAN

4) 
Name: Uway TSENG

12/27/09
Date:

12/22/2009
Date:

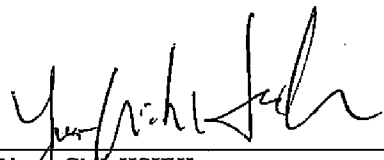
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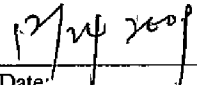
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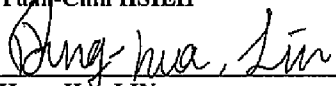
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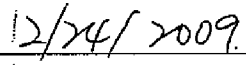
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5) 
Name: Yuan-Chin HSIEH


Date:

6) 
Name: Hung-Hua LIN


Date: