

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>Alexander Kalnitsky</td> <td>05/18/2012</td> </tr> <tr> <td>Yi-Shao Liu</td> <td>05/18/2012</td> </tr> <tr> <td>Kai-Chih Liang</td> <td>05/18/2012</td> </tr> <tr> <td>Chia-Hua Chu</td> <td>05/21/2012</td> </tr> <tr> <td>Chun-Ren Cheng</td> <td>05/18/2012</td> </tr> <tr> <td>Chun-Wen Cheng</td> <td>05/18/2012</td> </tr> </tbody> </table>		Name	Execution Date	Alexander Kalnitsky	05/18/2012	Yi-Shao Liu	05/18/2012	Kai-Chih Liang	05/18/2012	Chia-Hua Chu	05/21/2012	Chun-Ren Cheng	05/18/2012	Chun-Wen Cheng	05/18/2012
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<table border="1"> <tr> <td>Name:</td> <td>Taiwan Semiconductor Manufacturing Company, Ltd., ("TSMC")</td> </tr> <tr> <td>Street Address:</td> <td>No. 8, Li-Hsin Rd. 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 Company, Ltd., ("TSMC")	Street Address:	No. 8, Li-Hsin Rd. 6	Internal Address:	Science-Based Industrial Park	City:	Hsin-Chu	State/Country:	TAIWAN	Postal Code:	300-77		
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Application Number:	13480161														
CORRESPONDENCE DATA															
Fax Number:	(214)200-0853														
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Email:	Kim.Reyes@haynesboone.com														
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>															
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ATTORNEY DOCKET NUMBER:	2011-1045 / 24061.2147
NAME OF SUBMITTER:	Kelly Gehrke Lyle
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Docket No.: 2011-1045 / 24061.2147
Customer No.: 42717

ASSIGNMENT

WHEREAS, we,

- | | | | |
|-----|---------------------|----|---|
| (1) | Alexander Kalnitsky | | City of San Francisco
State of California |
| (2) | Yi-Shao Liu | of | 3F.-3, No. 68, Section. 2, Wenxing Road
Zhubei City, Hsinchu County 302, Taiwan R.O.C. |
| (3) | Kai-Chih Liang | of | 8F., No. 29-1, Zhuangjing 5th Steet
Zhubei City, Hsinchu County 302, Taiwan R.O.C. |
| (4) | Chia-Hua Chu | of | No. 1, Lane 176, Aikou 6th Street
Zhubei City, Hsinchu County 302, Taiwan R.O.C. |
| (5) | Chun-Ren Cheng | of | 8F-2, 123-1,89 Alley, Kuang-Fu Road
Hsin-Chu City, Taiwan R.O.C. |
| (6) | Chun-Wen Cheng | of | No. 15, Alley 11, Lane 100, Jiafeng 1st Steet
Zhubei City, Hsinchu County 302, Taiwan R.O.C. |

have invented certain improvements in

CMOS COMPATIBLE BIOFET

for which we have executed an application for Letters Patent of the United States of America, filed on May 24, 2012 and assigned application number 13/480,161; and

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd., ("TSMC"), No. 8, Li-Hsin Rd. 6, Science-Based Industrial Park Hsin-Chu, Taiwan 300-77, Republic of China, is desirous of obtaining the entire right, title, and interest in, to and under the said invention and the said application in the United States of America and in any and all countries foreign thereto;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and other good and valuable consideration, we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said TSMC, its successors, legal representatives, and assigns, the entire right, title, and interest in, to and under the said invention, and the said application, and all divisional, renewal, substitutional, and continuing applications thereof, and all Letters Patent of the United States of America which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may be filed for said invention in any country or countries foreign to the United States of America, and all extensions, renewals, and reissues thereof, and all prior patents and patent applications from which a filing priority of the above-described patent application may be obtained, including the right to collect past damages; and we hereby authorize and request the Commissioner of Patents of the United States of America, and any official of any country or countries foreign to the United States of America,

Docket No.: 2011-1045 / 24061.2147
Customer No.: 42717

whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said invention to the said TSMC, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to said TSMC, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, renewal, substitutional, continuing, and reissue applications, make all rightful declarations and/or oaths and generally do everything possible to aid the said TSMC, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

Inventor Name: Alexander Kalnitsky

Residence Address: 737 La Playa #B
San Francisco, California, 94121

Dated: 5/18/2012


Inventor Signature

Inventor Name: Yi-Shao Liu

Residence Address: 3F.-3, No. 68, Section 2, Wenxing Road
Zhubei City, Hsinchu County 302, Taiwan R.O.C.

Dated: 5/18/2012


Inventor Signature

Inventor Name: Kai-Chih Liang

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Zhubei City, Hsinchu County 302, Taiwan R.O.C.

Dated: 5/18/2012


Inventor Signature

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Inventor Name: Chia-Hua Chu

Residence Address: No. 1, Lane 176, Aikou 6th Street
Zhubei City, Hsinchu County 302, Taiwan R.O.C.

Dated: 5/21/2012

Chia-Hua Chu
Inventor Signature

Inventor Name: Chun-Ren Cheng

Residence Address: 8F-2, 123-1, 89 Alley, Kuang-Fu Road
Hsin-Chu City, Taiwan R.O.C.

5/18/2012
Dated: Chun-Ren Cheng

Chun-Ren Cheng
Inventor Signature

Inventor Name: Chun-Wen Cheng

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Dated: Chun-Wen Cheng 20120518

Chun-Wen Cheng
Inventor Signature