

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>Hung-Chun Wang</td> <td>03/04/2011</td> </tr> <tr> <td>Pei-Shiang Chen</td> <td>03/04/2011</td> </tr> <tr> <td>Tzu-Chin Lin</td> <td>03/04/2011</td> </tr> <tr> <td>Faruk Krecinic</td> <td>03/07/2011</td> </tr> <tr> <td>Jeng-Hong Chen</td> <td>03/07/2011</td> </tr> <tr> <td>Wen-Chun Huang</td> <td>03/04/2011</td> </tr> <tr> <td>Ru-Gun Liu</td> <td>03/08/2011</td> </tr> </tbody> </table>		Name	Execution Date	Hung-Chun Wang	03/04/2011	Pei-Shiang Chen	03/04/2011	Tzu-Chin Lin	03/04/2011	Faruk Krecinic	03/07/2011	Jeng-Hong Chen	03/07/2011	Wen-Chun Huang	03/04/2011	Ru-Gun Liu	03/08/2011
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RECEIVING PARTY DATA																	
Name:	Taiwan Semiconductor Manufacturing Company, 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>13964974</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13964974												
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CORRESPONDENCE DATA																	
Fax Number: <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>																	
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ATTORNEY DOCKET NUMBER:	24061.2603																

OP \$40.00 13964974

NAME OF SUBMITTER:	Brian D. Graham
Signature:	/Brian D. Graham/
Date:	08/13/2013
Total Attachments: 4 source=13964974Assign#page1.tif source=13964974Assign#page2.tif source=13964974Assign#page3.tif source=13964974Assign#page4.tif	

Docket No.: 2010-1207 / 24061.1698
Customer No.: 42717

ASSIGNMENT

WHEREAS, we,

- | | | | |
|-----|-----------------|----|---|
| (1) | Hung-Chun Wang | of | 390, Chung-San Road
Ching-Suei, Taichung County, Taiwan, R.O.C. |
| (2) | Pei-Shiang Chen | of | 6F-1, No. 111, Zhiping Road, East District
Hsinchu City 300, Taiwan, R.O.C. |
| (3) | Tzu-Chin Lin | of | 9F-3, No. 10, Lane 175, Wuling Road
Hsinchu City 300, Taiwan, R.O.C. |
| (4) | Faruk Krecinic | of | No. 7, Jin Shan Bei 1st Street, Room 504
Hsin Chu, Taiwan, R.O.C. |
| (5) | Jeng-Horng Chen | of | 1, Alley 2, lane 45, Fu-Chyun Street
Hsin-Chu, Taiwan, R.O.C. |
| (6) | Wen-Chun Huang | of | 58, Zhong-Shan Road, Xi-Gang Village
Xi-Gang Xiang, Tainan County 723, Taiwan, R.O.C |
| (7) | Ru-Gun Liu | of | No. 9, Alley 19, Lane 452, Baoshan Road
Hsinchu City 300, Taiwan, R.O.C. |

have invented certain improvements in

ELECTRON BEAM DATA STORAGE SYSTEM AND METHOD FOR HIGH VOLUME MANUFACTURING

for which we have executed an application for Letters Patent of the United States of America on
March 16, 2011, as U.S. Serial No. 13/049,123; and

WHEREAS, we authorize the attorney of record to update this document to include Patent Office information as deemed necessary (i.e., filing date, serial number, etc.);

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

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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, 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: Hung-Chun Wang

Residence Address: 390, Chung-San Road
Ching-Suei, Taichung County,, Taiwan, R.O.C.

Dated: 2011/3/4

Hung-Chun Wang
Inventor Signature

Inventor Name: Pei-Shiang Chen

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Dated: 2011/3/4

Pei-Shiang Chen
Inventor Signature

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Dated: 2011.3.4

Tzu-Chin Lin
Inventor Signature

Inventor Name: Faruk Krecinic

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Dated: 2011/03/07

Faruk Krecinic
Inventor Signature

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Dated: 2011/03/07

Jeng Horng Chen
Inventor Signature

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Xi-Gang Xiang, Tainan County 723, Taiwan, R.O.C.

Dated: 2011.3.4

Wen-Chun Huang
Inventor Signature

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Inventor Name: Ru-Gun Liu
Residence Address: No. 9, Alley 19, Lane 452, Baoshan Road
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Dated: March - 8. 2011

Ru-Gun Liu
Inventor Signature