

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>Seiichi ARITOME</td> <td>12/21/2011</td> </tr> <tr> <td>Hyun-Seung YOO</td> <td>12/21/2011</td> </tr> <tr> <td>Sung-Jin WHANG</td> <td>12/21/2011</td> </tr> </tbody> </table>		Name	Execution Date	Seiichi ARITOME	12/21/2011	Hyun-Seung YOO	12/21/2011	Sung-Jin WHANG	12/21/2011
Name	Execution Date								
Seiichi ARITOME	12/21/2011								
Hyun-Seung YOO	12/21/2011								
Sung-Jin WHANG	12/21/2011								
RECEIVING PARTY DATA									
Name:	Hynix Semiconductor Inc.								
Street Address:	San 136-1, Ami-ri, Bubal-eup, Icheon-si								
City:	Gyeonggi-do								
State/Country:	REPUBLIC OF KOREA								
Postal Code:	467-701								
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>13334423</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13334423				
Property Type	Number								
Application Number:	13334423								
CORRESPONDENCE DATA									
Fax Number:	(571)327-5452								
Phone:	571-327-5450								
Email:	ipntlaw@ipntlaw.com								
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>									
Correspondent Name:	IP & T GROUP LLP								
Address Line 1:	7700 Little River Turnpike								
Address Line 2:	Suite 207								
Address Line 4:	Annandale, VIRGINIA 22003								
ATTORNEY DOCKET NUMBER:	P11H0080US								
NAME OF SUBMITTER:	Jung H. Kim								
Total Attachments: 2 source=P11H0080US-Assignment#page1.tif source=P11H0080US-Assignment#page2.tif									

CH \$40.00 13334423

ASSIGNMENT OF PATENT APPLICATION

WHEREAS I/We, the below named inventor(s) has made an invention entitled:
PROGRAMMING METHOD OF NON-VOLATILE MEMORY DEVICE

For which I/We executed an application for Letters Patent of the United States concurrently herewith; and/or
For which I/We filed an application for Letters Patent of the United States on _____ (Application No. _____),

BE IT KNOWN that, for good and valuable consideration, the receipt of which is hereby acknowledged, I/We, as assignor(s), have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto Hynix Semiconductor Inc., a corporation of the Republic of Korea, whose post office address is San 136-1, Ami-ri, Bubal-eup, Icheon-si, Gyeonggi-do 467-701, Republic of Korea (hereinafter referred to as Assignee), its lawful successors and assigns my/our entire right, title, and interest in and to this application and the invention(s) and improvement(s) set forth therein; and any and all continuations, continuations-in-part, divisionals, and renewals of and substitutes for said application for said Letters Patent and any and all Letters Patent of the United States and of countries foreign thereto, which may be granted thereon or therefore; and any reissues, reexaminations, or extensions of all such Letters Patent.

I/WE HEREBY authorize the Assignee, its lawful successors and assigns to apply for Letters Patent in all countries foreign to the United States directly in its own name, and to claim priority of the filing date of any of the above-mentioned applications for Letters Patent of the United States and of countries foreign thereto under the provisions of any and all international conventions and treaties.

I/WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States and official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as foresaid, to issue all Letters Patent for this invention to the Assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, I/WE HEREBY covenant that I/We have the full right to convey the interest assigned by this Assignment, and I/We have not executed and will not execute any agreement in conflict with this Assignment;

AND, I/WE HEREBY further covenant and agree that I/We will, without further consideration, communicate with said Assignee, its successors and assigns, any facts known to me/us respecting this invention and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, its successors and assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid said Assignee, its successors and assigns, to obtain and enforce proper patent protection for this invention in the United States and in countries foreign thereto, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

AND, I/WE HEREBY authorize and request the attorneys of record to insert the serial number and filing date of said application now identified by the attorney docket number and title set forth above as soon as the same shall have been known to them by the United States Patent and Trademark Office.

IN TESTIMONY WHEREOF, I/We have hereunto set our hands,

Signature of first assignor: Seiji Arimoto Date December 21, 2011
Name of first assignor: ARITOME, Seiji
Address: San 136-1, Ami-ri, Bubal-eup, Icheon-si, Gyeonggi-do 467-701, Republic of Korea
Signature of second assignor: Yoo Hyun Seung Date December 21, 2011
Name of second assignor: YOO, Hyun-Seung
Address: San 136-1, Ami-ri, Bubal-eup, Icheon-si, Gyeonggi-do 467-701, Republic of Korea



Attorney Docket No.

Signature of third assignor:
Name of third assignor:
Address:

Whang Sung Jin Date December 21, 2011
WHANG, Sung-Jin
San 136-1, Ami-ri, Bubal-eup, Icheon-si, Gyeonggi-do 467-701, Republic of Korea

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