

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Mr. Won Kyung Chung	03/12/2010
RECEIVING PARTY DATA	
Name:	Hynix Semiconductor Inc.
Street Address:	San 136-1, Ami-ri, Bubal-eub
City:	Ichon-si, Gyeonggi-do 467-860
State/Country:	REPUBLIC OF KOREA
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	12651043
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NAME OF SUBMITTER:	K. Kevin Mun
Total Attachments: 2	
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ASSIGNMENT

WHEREAS, I, the below named inventor (hereinafter referred to as "Assignor"), have made an invention entitled:

**REFRESH CONTROL CIRCUIT AND METHOD FOR
SEMICONDUCTOR MEMORY APPARATUS**

for which I executed an application for United States Letters Patent

- concurrently herewith, or
 filed as Application No. 12/651,043 on December 31, 2009, and

WHEREAS, Hynix Semiconductor Inc. (hereinafter referred to as "Assignee"), organized and operating under the laws of Republic of Korea, whose post office address is San 136-1, Ami-ri, Bubal-eub, Ichon-si, Gyeonggi-do 467-860, Republic of Korea, is desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the application for United States Letters Patent on this invention and the letters Patent to be issues upon this application;

NOW THEREFORE, be it known that, for good and valuable consideration the receipt of which from Assignee is hereby acknowledged, Assignor has sold, assigned, transferred, and set over, and does hereby sell, assign, transfer, and set over unto Assignee, its lawful successors and assigns, the entire right, title, and interest in and to this invention, this application, all divisions and continuations thereof, all Letters Patent of the United States which may be granted thereon, all reissues thereof, all rights to claim priority on the basis of this application, all applications for Letters Patent which may hereafter be filed for this invention in any foreign country, all Letters Patent which may be granted on this invention in any foreign country, and all extensions, renewals, and reissues thereof; and Assignor hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, ASSIGNOR HEREBY covenants that Assignor has the full right to convey the interest assigned by this Assignment, and Assignor has not executed and will not execute any agreement in conflict with this Assignment;

AND, ASSIGNOR HEREBY further covenants and agrees, without further consideration, that Assignor will communicate with Assignee, its successors and assigns, any facts known to Assignor 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 or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper patent protection for this invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

IN TESTIMONY WHEREOF, I have hereunto set my hand.

Signature of Inventor:

Chung won kyung

Inventor's Name:

CHUNG, Won Kyung

Residence:

San 136-1, Ami-ri, Bubal-eub,

Ichon-si, Gyeonggi-do, 467-860, Korea

Citizenship:

Korean

Date:

2010.3.12