

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>OH-SEONG KWON</td> <td>09/06/2012</td> </tr> <tr> <td>JIN-HYUN KIM</td> <td>09/06/2012</td> </tr> <tr> <td>HYUN-HO CHOI</td> <td>09/06/2012</td> </tr> </tbody> </table>		Name	Execution Date	OH-SEONG KWON	09/06/2012	JIN-HYUN KIM	09/06/2012	HYUN-HO CHOI	09/06/2012
Name	Execution Date								
OH-SEONG KWON	09/06/2012								
JIN-HYUN KIM	09/06/2012								
HYUN-HO CHOI	09/06/2012								
RECEIVING PARTY DATA									
Name:	SAMSUNG ELECTRONICS CO., LTD.								
Street Address:	129, SAMSUNG-RO, YEONGTONG-GU								
City:	SUWON-SI, GYEONGGI-DO								
State/Country:	KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF								
Postal Code:	443-742								
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>13609330</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13609330				
Property Type	Number								
Application Number:	13609330								
CORRESPONDENCE DATA									
Fax Number:	5712830740								
Phone:	5712830720								
Email:	aloomis@volentine.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:	VOLENTINE & WHITT, PLLC								
Address Line 1:	11951 FREEDOM DRIVE, SUITE 1300								
Address Line 4:	RESTON, VIRGINIA 20190								
ATTORNEY DOCKET NUMBER:	SEC.3216								
NAME OF SUBMITTER:	ADAM C. VOLENTINE								
Total Attachments: 2 source=Assignment#page1.tif source=Assignment#page2.tif									

CH \$40.00 13609330

ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned

Insert
Name(s) of
Inventor(s)

- 1. OH-SEONG KWON 7. _____
- 2. JIN-HYUN KIM 8. _____
- 3. HYUN-HO CHOI 9. _____
- 4. _____ 10. _____
- 5. _____ 11. _____
- 6. _____ 12. _____

Insert
Name(s) of
Assignee(s) &

the undersigned hereby sell(s) and assign(s) to

Address(es)

SAMSUNG ELECTRONICS CO., LTD.
129, Samsung-ro, Yeongtong-gu,
of Suwon-si, Gyeonggi-do 443-742, Republic of Korea

(hereinafter designated as the Assignee) the entire right, title and interest for the United States as defined in 35 USC 100, in the invention known as

Title of
Invention

RESISTIVE MEMORY DEVICE AND METHOD OF WRITING DATA USING
MULTI-MODE SWITCHING CURRENT

Date of
Signing of
Application

for which an application for patent in the United States of America has been executed by
the undersigned on _____

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuing, division or reissue thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

The undersigned agree(s) to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned

The undersigned hereby grant(s) the practitioners associated with the CUSTOMER NUMBER 20987 the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent Office for recordation of this document.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patents of the United States resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

name(s).

Date 2012. 08. 06 Signature of Inventor OH-SEONG KWON
OH-SEONG KWON

Date 2012. 9. 6 Signature of Inventor JIN-HYUN KIM
JIN-HYUN KIM

Date 2012. 9. 6 Signature of Inventor HYUN-HO CHOI
HYUN-HO CHOI

Date _____ Signature of Inventor _____

Date _____ Signature of Inventor _____

Date _____ Signature of Inventor _____

(Note regarding Witnessing: It is recommended that the execution by the Inventor(s) be witnessed by at least two witnesses who sign here. However, the current practice of the U.S. Patent and Trademark Office is to record an Assignment even it has not been witnessed.)

Witness _____

Witness _____

Applicant Reference No. SPX201112-0008US

