

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

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>Chan-Jin Park</td> <td>04/17/2012</td> </tr> <tr> <td>Hyun-Su Ju</td> <td>04/17/2012</td> </tr> <tr> <td>In-Gyu Baek</td> <td>04/23/2012</td> </tr> </tbody> </table>		Name	Execution Date	Chan-Jin Park	04/17/2012	Hyun-Su Ju	04/17/2012	In-Gyu Baek	04/23/2012
Name	Execution Date								
Chan-Jin Park	04/17/2012								
Hyun-Su Ju	04/17/2012								
In-Gyu Baek	04/23/2012								
RECEIVING PARTY DATA									
Name:	SAMSUNG ELECTRONICS CO., LTD.								
Street Address:	416, Maetan-dong, Yeongtong-gu,								
City:	Suwon-si, Gyeonggi-do,								
State/Country:	REPUBLIC OF KOREA								
Postal Code:	442-742								
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>13462844</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13462844				
Property Type	Number								
Application Number:	13462844								
CORRESPONDENCE DATA									
Fax Number:	(571)283-0740								
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<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:	SEC.3105								
NAME OF SUBMITTER:	ADAM C. VOLENTINE								
Total Attachments: 2 source=Assignment#page1.tif source=Assignment#page2.tif									

CH \$40.00 13462844

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. CHAN-JIN PARK 7. _____
- 2. HYUN-SU JU 8. _____
- 3. IN-GYU BAEK 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.
416, Maetan-dong, Yeongtong-gu,
of Suwon-si, Gyeonggi-do 442-742, 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**

NON-VOLATILE MEMORY DEVICE HAVING VARIABLE RESISTANCE
ELEMENT AND METHOD OF FABRICATING THE SAME

**Date of
Signing of
Application**

for which an application for patent in the United States of America has been executed by
the undersigned on April 17 & 23, 2012

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.

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.

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

Date April, 17, 2012 Signature of Inventor Chanjin Park
CHAN-JIN PARK

Date April, 17, 2012 Signature of Inventor [Signature]
HYUN-JU JU

Date Apr. 23, 2012 Signature of Inventor [Signature]
IN-GYU BAEK

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. SPX201104-0007US