

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT																
NATURE OF CONVEYANCE:	ASSIGNMENT																
CONVEYING PARTY DATA																	
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<table border="1"> <tr> <td>Name:</td> <td>SAMSUNG ELECTRONICS CO., LTD.</td> </tr> <tr> <td>Street Address:</td> <td>129, SAMSUNG-RO, YEONGTONG-GU,</td> </tr> <tr> <td>City:</td> <td>SUWON-SI, GYEONGGI-DO,</td> </tr> <tr> <td>State/Country:</td> <td>KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF</td> </tr> <tr> <td>Postal Code:</td> <td>443-742</td> </tr> </table>		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						
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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>																	
Correspondent Name:	VOLENTINE & WHITT, PLLC																
Address Line 1:	11951 FREEDOM DRIVE, SUITE 1300																
Address Line 4:	RESTON, VIRGINIA 20190																
ATTORNEY DOCKET NUMBER:	SEC.3113																

CH \$40.00 13545127

NAME OF SUBMITTER:

ADAM C. VOLENTINE

Total Attachments: 4

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VOLENTINE & WHITT, P.L.L.C. (01/2007)

ATTORNEY DOCKET NO. SEC 3113**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. <u>Jung-Ro AHN</u> | 7. <u>Tae-Hyun YOON</u> |
| 2. <u>Bong-Yong LEE</u> | 8. _____ |
| 3. <u>Hae-Bum LEE</u> | 9. _____ |
| 4. <u>Eui-Do KIM</u> | 10. _____ |
| 5. <u>Houng-Kuk JANG</u> | 11. _____ |
| 6. <u>Kyung-Jun SHIN</u> | 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,
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**

METHOD OF STORING DATA IN NONVOLATILE MEMORY DEVICE AND
METHOD OF OPERATING NONVOLATILE MEMORY DEVICE

**Date of
Signing of
Application**

for which an application for patent in the United States of America has been executed by
 the undersigned on JUNE 29, 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.

VOLENTINE & WHITT, P.L.L.C. (01/2007)

ATTORNEY DOCKET NO. SEC.3113

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 2012.06.29 Signature of Inventor Ahn Jung Ro
Jung-Ro AHN

Date 2012.06.29 Signature of Inventor Lee Bong Yong
Bong-Yong LEE

Date 2012.06.29 Signature of Inventor Lee Hae-Rum
Hae-Rum LEE

Date _____ Signature of Inventor _____
Eui-Do KIM

Date _____ Signature of Inventor _____
Hong-Ruk JANG

Date 2012.6.29 Signature of Inventor Kyung-Juh Shin
Kyung-Juh SHIN

Date _____ Signature of Inventor _____
Tae-Hyun YOON

(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. CX8022US/JD

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Date _____ Signature of Inventor _____
Jung-Ro ANN

Date _____ Signature of Inventor _____
Bong-Yong LEE

Date _____ Signature of Inventor _____
Hae-Bum LEE

Date July 3, 2012 Signature of Inventor [Signature]
Eui-Da KIM

Date July 3, 2012 Signature of Inventor [Signature]
Hong-Bae JANG

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Kyung-Jun SHIN

Date 2012. 6. 29 Signature of Inventor Tae Hyun YOON
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