

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Sung Il Chang	08/29/2011
Young Woo Park	08/29/2011
Jae Goo Lee	08/29/2011
RECEIVING PARTY DATA	
Name:	SAMSUNG ELECTRONICS CO., LTD.
Street Address:	416, Maetan-dong, Yeongtong-gu,
City:	Suwon-si, Gyeonggi-do,
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PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	13222173
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Total Attachments: 2 source=Assignment#page1.tif source=Assignment#page2.tif	

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PATENT

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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>Sung Il Chang</u> | 7. _____ |
| 2. <u>Young Woo Park</u> | 8. _____ |
| 3. <u>Jae Goo Lee</u> | 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,
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

THREE-DIMENSIONAL SEMICONDUCTOR MEMORY DEVICES AND METHODS
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 August 29, 2011

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 8/29/2011 Signature of Inventor 
Sung Il Chang

Date 8/29/2011 Signature of Inventor 
Youngwoo Park

Date 8/29/2011 Signature of Inventor 
Jaegoo Lee

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 _____

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Applicant Reference No. IE-200592-US