

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Sang-beom Kang</td> <td>06/14/2007</td> </tr> <tr> <td>Woo-yeong Cho</td> <td>06/15/2007</td> </tr> <tr> <td>Hyung-rok Oh</td> <td>06/15/2007</td> </tr> <tr> <td>Joon-min Park</td> <td>06/15/2007</td> </tr> </tbody> </table>		Name	Execution Date	Sang-beom Kang	06/14/2007	Woo-yeong Cho	06/15/2007	Hyung-rok Oh	06/15/2007	Joon-min Park	06/15/2007
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Woo-yeong Cho	06/15/2007										
Hyung-rok Oh	06/15/2007										
Joon-min Park	06/15/2007										
RECEIVING PARTY DATA											
Name:	Samsung Electronics Co., Ltd.										
Street Address:	416 Maetan-dong										
Internal Address:	Yeongtong-gu, Suwon-si										
City:	Gyeonggi-do										
State/Country:	REPUBLIC OF KOREA										
PROPERTY NUMBERS Total: 1											
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>11957756</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	11957756						
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CORRESPONDENCE DATA											
Fax Number:	(919)854-1401										
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>											
Phone:	919-854-1400										
Email:	sfreedman@myersbigel.com										
Correspondent Name:	Susan E. Freedman/MBSS										
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ATTORNEY DOCKET NUMBER:	5649-2180										
NAME OF SUBMITTER:	Susan E. Freedman										
<p>Total Attachments: 5 source=5649-2180_Assignment#page1.tif</p>											

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ASSIGNMENT

THIS ASSIGNMENT, made by us, **Sang-beom Kang**, citizen of the Republic of Korea, residing at #103-301 Samsung Remian 1-cha Apt., Gisan-dong, Hwaseong-si, Gyeonggi-do, Republic of Korea; **Woo-yeong Cho**, citizen of the Republic of Korea, residing at #703-703 Jindeok Apt., Salgugol 7 danji, Yeongtong-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea; **Hyung-rok Oh**, citizen of the Republic of Korea, residing at #102-906 Lotte Apt., Manhyeon Maeul, Sanghyeon-dong, Suji-gu, Yongin-si, Gyeonggi-do, Republic of Korea; and **Joon-min Park**, citizen of the Republic of Korea, residing at #1-501 Hyundai Apt., Sadang 3-dong, Dongjak-gu, Seoul, Republic of Korea;

WITNESSETH: That,

WHEREAS, we are the joint inventors of certain new and useful improvements in **CIRCUITS AND METHODS FOR ADAPTIVE WRITE BIAS DRIVING OF RESISTIVE NON-VOLATILE MEMORY DEVICES**, for which an application for United States Letters Patent has been filed, or is being filed concurrently, in the United States Patent and Trademark Office. We hereby authorize and request Myers Bigel Sibley & Sajovec, P.A., to insert here in parentheses (Application No. 11/957,756, filed December 17, 2007) the filing date and application number of said application when known or to file this Assignment concurrently with the application, and

WHEREAS, **Samsung Electronics Co., Ltd.**, a Korean corporation having a principal place of business at 416 Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea, hereinafter referred to as assignee, is desirous of acquiring the entire right, title and interest in and to said invention as described in said application, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold and by these presents do hereby sell, assign, transfer and convey unto the said assignee, its successors and assigns, the entire right, title and interest in and to the said invention and application, and in and to any and all continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted, together with the right to claim

ASSIGNMENT ? CONTINUED

the priority of said application in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

We hereby request that said Letters Patent be issued in accordance with this assignment.

We further covenant and agree that, at the time of the execution and delivery of these presents, we possess full title to the invention and application above-mentioned, and that we have the unencumbered right and authority to make this assignment.

We further covenant and agree to bind our heirs, legal representatives and assigns, promptly to communicate to said assignee or its representatives any facts known to us relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said assignee, its successors, assigns and other legal representatives.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 14 day of June, 2007.



Sang-beom Kang (SEAL)

Witnessed by:

Date: _____

ASSIGNMENT ? CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 15th day
of June, 2007.

Woo-yeong Cho (SEAL)
Woo-yeong Cho

Witnessed by:

Date: _____



ASSIGNMENT ? CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 15 day
of June, 2007.

Hyung-rok oh (SEAL)
Hyung-rok Oh

Witnessed by:

Date: Jun 15, 2007

ASSIGNMENT ? CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 15th day
of June, 2007.

Joon Min Park (SEAL)
Joon-min Park

Witnessed by:

Date: _____