

RM PTO-1595 (Modified)  
v. 03-01)  
IB No. 0651-0027 (exp.5/31/2002)  
3A/REV03

04/23/2007

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Name of conveying party(ies):  
**Yu-Hwan RO**  
**Kwang-Jin LEE**  
**Sang-Beom KANG**  
**Woo-Yeong CHO**  
  
Additional names(s) of conveying party(ies)  Yes  No

4.23.07

2. Name and address of receiving party(ies):  
Name: **Samsung Electronics Co., Ltd.**  
Address: **416, Maetan-dong, Yeongtong-gu, Suwon-si**

Nature of conveyance:  
 Assignment  Merger  
 Security Agreement  Change of Name  
 Other

City: **Gyeonggi-do** State/Prov.:  
Country: **Republic of Korea** ZIP:

Execution Date: **April 10, 2007**

Additional name(s) & address(es)  Yes  No

Application number(s) or patent numbers(s):  
this document is being filed together with a new application, the execution date of the application is:

11/790011

April 10, 2007

Patent Application No. Filing date  
**NEW** **April 23, 2007**

B. Patent No.(s)

Additional numbers  Yes  No

Name and address of party to whom correspondence concerning document should be mailed:  
Name: **BENJAMIN P. WESTOVER**  
Registration No. **56,612**  
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City: **RESTON** State/Prov.: **VA**  
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6. Total number of applications and patents involved: **1**  
7. Total fee (37 CFR 3.41):.....\$ **40.00**  
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**BENJAMIN P. WESTOVER**  
Name of Person Signing

*B Westover*  
Signature

April 23, 2007

Total number of pages including cover sheet, attachments, and document: **3**

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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>Yu-Hwan RO</u>     | 5. _____ |
| 2. <u>Kwang-Jin LEE</u>  | 6. _____ |
| 3. <u>Sang-Beom KANG</u> | 7. _____ |
| 4. <u>Woo-Yeong CHO</u>  | 8. _____ |

Insert  
Name(s) of  
Assignee(s) &

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

SAMSUNG ELECTRONICS CO., LTD.  
416, Maetan-dong, Yeongtong-gu,  
Suwon-si, Gyeonggi-do, Republic of Korea

Address(es)

(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

PHASE CHANGE MEMORY DEVICE AND RELATED PROGRAMMING METHOD

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 10, 2007

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 10, 2007 Signature of Inventor   
Yu-Hwan KO

Date April 10, 2007 Signature of Inventor Kwang-Jin Lee  
Kwang-Jin Lee

Date APRIL 10, 2007 Signature of Inventor   
Sang-Deon KANG

Date April 10, 2007 Signature of Inventor WOOD YEONG CHO  
Woo-Yeong CHO

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 if it has not been witnessed.)

Witness \_\_\_\_\_

Witness \_\_\_\_\_

Applicant Reference No. PX2194US/SSD