

01-05-2006

Docket No.: SEC.1529

FORM PTO-1595 (Modified)  
(Rev. 03-01)  
OMB No. 0651-0027 (exp. 5/31/2002)  
P08A/REV03

ET

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office



103151372

Tab settings

To the Director of the United States Patent and Trademark Office: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

12-23-  
Yu-Hwan RO  
Woo-Yeong CHO  
Byung-Gil CHOI

2. Name and address of receiving party(ies):

Name: Samsung Electronics Co., Ltd.

Address: 416, Maetan-dong, Yeongtong-gu, Suwon-si

Additional names(s) of conveying party(ies)

☐ Yes ☒ No

3. Nature of conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ Other

City: Gyeonggi-do State/Prov.:

Country: Republic of Korea ZIP:

Execution Date: December 21, 2005

Additional name(s) &amp; address(es)

☐ Yes ☒ No

4. Application number(s) or patent numbers(s):

If this document is being filed together with a new application, the execution date of the application is: December 21, 2005

Patent Application No.

Filing date

B. Patent No.(s)

NEW

DECEMBER 23, 2005

Additional numbers

☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: ADAM C. VOLENTINE

Registration No. 33289

Address: VOLENTINE FRANCO &amp; WHITT, PLLC

11951 FREEDOM DRIVE, SUITE 1260

City: RESTON

State/Prov.: VA

Country: USA

ZIP: 20190

6. Total number of applications and patents involved:

1

7. Total fee (37 CFR 3.41):.....\$ 40.00

☒ Enclosed - Any excess or insufficiency should be credited or debited to deposit account☐ Authorized to be charged to deposit account

8. Deposit account number:

50-0238

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

ADAM C. VOLENTINE

Name of Person Signing

Signature

DEC. 23, 2005

Date

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

3

Mail documents to be recorded with required cover sheet information to:  
Mail Stop Assignment Recordation Services  
Director of the United States Patent and Trademark Office  
P.O. Box 1450, Alexandria, VA 22313-1450

12/28/2005 HGUTEMA1 00000070 11316017

06 FC:8021

40.00 OP

PATENT  
REEL: 017408 FRAME: 0936

## 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. Yu-Hwan RO     | 5. _____ |
| 2. Woo-Yeong CHO  | 6. _____ |
| 3. Byung-Gil CHOI | 7. _____ |
| 4. _____          | 8. _____ |

**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, 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 PHASE-CHANGE MEMORY DEVICE AND METHOD OF  
READING 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 December 21, 2005

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 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.

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.

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

Date 21 Dec, 2005 Signature of Inventor Ro, Yu-Hwan  
Yu-Hwan RO

Date Dec. 21, 2005 Signature of Inventor WOO YEONG CHO  
Woo-Yeong CHO

Date 21 Dec. 2005 Signature of Inventor Byung-gil Choi  
Byung-Gil CHOI

Date \_\_\_\_\_ Signature of Inventor \_\_\_\_\_

Date \_\_\_\_\_ Signature of Inventor \_\_\_\_\_

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. ID14753-US