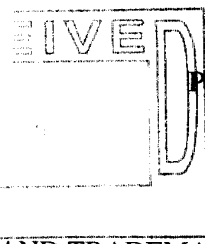


07-14-1998



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PATENT APPLICATION  
Atty's Do. No. 4591-31  
Samsung Ref. 2003-1  
Hana Ref. ID6147-US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of: **Byeng-sun CHOI; Tae-sung JUNG; Myoung-jae KIM;  
and Seung-keun LEE**

Serial No. 08/990,023

Filed: December 12, 1997

For: **ADVANCED NONVOLATILE MEMORIES ADAPTABLE TO DYNAMIC RANDOM  
ACCESS MEMORIES AND METHODS OF OPERATING THEREIN**

Box Assignment  
Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**ASSIGNMENT TRANSMITTAL COVER SHEET**

Please record the attached original document or copy thereof and return the recorded instrument to the undersigned.

- 1. Name of party conveying an interest: (1) **Byeng-sun CHOI**  
(2) **Tae-sung JUNG**  
(3) **Myoung-jae KIM**  
(4) **Seung-keun LEE**
- 2. Name and address of party(ies) receiving an interest: **Samsung Electronics Co., Ltd.**  
**416 Maetan-Dong, Palkal-Ku**  
**Suwon-City, Kyungki-Do**  
**Republic of Korea**

07/13/1998 **NGUYEN** 00000169 08990023  
01 FC:581 40.00 DP

- 3. Description of the interest conveyed:  
 Assignment  Change of Name  Security Agreement  Merger  Other:

- Date of execution of attached document: (1) **June 5, 1998**  
(2) **June 5, 1998**  
(3) **June 5, 1998**  
(4) **June 5, 1998**

4. Application number(s) or patent number(s). Additional sheet attached? Yes \_ No    
 If this document is being filed together with a new application, the execution date of the application is.
- A. Patent Application No. 08/990,023                      B. Patent No.
5. Name and address of party to whom correspondence concerning document should be mailed:
- Micah D. Stelowitz  
MARGER, JOHNSON, McCOLLOM & STOLOWITZ, P.C.  
1030 S.W. Morrison Street  
Portland, Oregon 97205  
Telephone: (503) 222-3613
6. Number of applications and patents involved: 1
7. Enclosed is our check for \$40.00 (check no. 025775).
8. Any deficiency or overpayment should be charged or credited to deposit account number 13-1703.
9. 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.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Box Assignment, Commissioner of Patents and Trademarks, Washington D.C. 20231, on July 1, 1998.

Signature *Derek S. Watson*  
Derek S. Watson

Respectfully submitted,

*Micah D. Stelowitz* / *dsw*  
Micah D. Stelowitz  
Reg. No. 32,758

Total number of pages comprising  
cover sheet and attached assignment: 4

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PATENT APPLICATION  
Atty's Do. No. 4591-31  
Korean Priority Document No.: 96-65921  
Samsung Ref. 2003-1  
Hana Ref. ID6147-US

**ASSIGNMENT**

U.S.A. Patent Application  
Sole or Joint  
For Inventions Made Outside U.S.A.  
Executed With Application

In consideration of the sum of Ten Dollars (10.00) and other good and valuable considerations paid to each of the undersigned, to wit:

- (1) **Byeng-sun CHOI**
- (2) **Tae-sung JUNG**
- (3) **Myoung-jae KIM**
- (4) **Seung-keun LEE**

X if continued on separate page

the receipt and sufficiency of which are hereby acknowledged by the undersigned who hereby sell(s), assign(s) and transfer(s) unto:

**SAMSUNG ELECTRONICS CO., LTD.**  
**416 MAETAN-DONG, PALDAL-KU**  
**SUWON-CITY, KYUNGKI-DO**  
**REPUBLIC OF KOREA**

(hereinafter designated "ASSIGNEE") the entire right, title and interest for the United States Of America as defined in 35 U.S.C. §100, in and to the invention known as:

**ADVANCED NONVOLATILE MEMORIES ADAPTABLE TO DYNAMIC RANDOM  
ACCESS MEMORIES AND METHODS OF OPERATING THEREIN**

for which an application for Letters Patent of the United States of America filed on December 12, 1997, Serial Number 08/990,023 has been executed herewith by the undersigned, and in and to any and all divisionals, continuations, substitutes, and reissues thereof; and all resulting patents and the undersigned hereby authorizes and requests the United States Assistant Commissioner of Patents to issue said Letters Patent to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned agrees that the attorneys of record in said application shall hereafter act on behalf of said ASSIGNEE;

And the undersigned hereby agrees to testify and execute any papers for ASSIGNEE, its successors, assigns and legal representatives, deemed essential by ASSIGNEE to ASSIGNEE'S full protection and title in and to the invention hereby transferred.

Please sign  
concurrently  
with Oath or Declaration  
and Power of Attorney

**SIGNED ON THE DATE(S) INDICATED BESIDE MY/OUR SIGNATURE(S):**

<u>INVENTOR(S)</u>	<u>DATE SIGNED</u>	<u>WITNESSED</u>
(1) <u><i>B.S. Choi</i></u> Byeng-sun CHOI	<u>June. 5. 98</u>	<u><i>youngsun B.</i></u>
(2) <u><i>Tae-sung Jung</i></u> Tae-sung JUNG	<u>6-5-98</u>	<u><i>Sam H. Lee</i></u>
(3) <u><i>M.J. Kim</i></u> Myoung-jae KIM	<u>6-5-98</u>	<u><i>[Signature]</i></u>
(4) <u><i>Seung-keun Lee</i></u> Seung-keun LEE	<u>June. 5. 98</u>	<u><i>Min-sun Kim</i></u>

FOR ADDITIONAL INVENTORS, "X" BOX [ ] AND CONTINUE ON SEC- 2.005

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