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To. 2557-000931/U Page 1 of

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RECORDATION FORM COVER SHEET

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.		
1. Name of conveying party(ies): 1) Jae-young CHOI 2) Hyeon-jin SHIN 3) Seon-mi YOON Additional name(s) of conveying party(ies) attached? YES NO 3. Nature of conveyance: Assignment Merger Security Agreement Change of Name Other: Execution Date: 1-3) April 10, 2008	2. Name and address of receiving party(ies) Name: SAMSUNG ELECTRONICS CO., LTD. Street Address: 416, Maetan-dong, Yeongtong-gu City: Suwon-si, Gyeonggi-do Country: Korea Additional name(s) & address(es) attached? ☐ YES ☒ NO	
4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: April 10, 2008 A. Patent Application No(s). B. Patent No.(s).		
Additional numbers attact 5. Name and address of party to whom correspondence concerning document should be mailed: Name: HARNESS, DICKEY & PIERCE, P.L.C. Street Address: P.O. BOX 8910 City: RESTON State: VA ZIP: 20195 Country: USA	ched? YES NO 6. Total No. of applications/patents involved: One (1) 7. Total fee (37 C.F.R. § 3.41): \$40.00 Enclosed Authorized to be charged to deposit account, if no fee attached. 8. Deposit account number: 08-0750 (Attach triplicate copy of this page if paying by deposit account)	
9. Statement and signature. To the best of my knowledge and belief, the foregoing copy of the original document. John A. Castellano, #35,094 Name of Person Signing/Reg. No.	E PHIS SPACE information is true and correct and any attached copy is a true April 15, 2008 Date Date 14/16/2008 DEMMANUI 98000032 12081357	

PATENT

05 FC:8021

REEL: 020852 FRAME: 0981

ASSIGNMENT

WHEREAS, the undersigned hereinafter referred to collectively as Assignor, has invented:

METHOD OF FORMING NANO DOTS. METHOD OF FABRICATING THE MEMORY DEVICE INCLUDING THE SAME, CHARGE TRAP LAYER INCLUDING THE NANO DOTS AND MEMORY DEVICE INCLUDING THE SAME

for which Assignor is about to make or has made United States or International application for patent

(a)	×	executed on even date preparatory to filing (each inventor should sign this Assignment on the same day as he/she signs the Declaration and Power of Attorney);
(b)		executed on,; or
(c)		filed on, and assigned Serial No or PCT International Application No;
(d)		U.S. Patent No, issued; and
		Samsung Electronics Co., Ltd., 416, Maetan-dong, Yeongtong-gu, Suwon- public of Korea, and hereinafter referred to as Assignee, is desirous of

si, Gyed f acquiring an interest therein:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy whereof is hereby acknowledged, Assignor by these presents does sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and all foreign countries, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the said invention as described in the aforesaid application, said application for patent and all Letters Patent therefor to be held and enjoyed by Assignee to the full end of the term for which said Letters Patent are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to recover for past infringements of, or liabilities for, any of the rights relating to any of said applications or patents resulting therefrom;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-examination, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee without further or other compensation than that above set forth;

Assignor hereby covenants that no assignment, sale or agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

Assignor hereby requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States of America to Assignee, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue said Letters Patent, Utility Model Registration or Inventor's Certificate to Assignee.

The undersigned hereby grant(s) the law firm of Harness, Dickey & Pierce, P.L.C. 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 U.S. Patent and Trademark Office for recordation of this document.

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ASSIGNMENT

Jae-young CHOI

10/April/2008

Dated

Hyeon-jin SHIN

10/April/2008

Dated

Seon-mi YOON

10/April/2008

Dated

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PATENT REEL: 020852 FRAME: 0983

RECORDED: 04/15/2008