FORM PTO-1595

01/04/2008

01-16-2008



U.S. DEPARTMENT OF COMMERCE

		PATENT AND TRADEMARK OFFICE
	To the Honorable Commissioner of F. 1036 Please record the attached original documents or co	475514  opy thereof.
1.	Name of conveying party(ies):	Name and address of receiving party(ies):     Name:
	Taek-seon Park; and Sung-min Yim	Samsung Electronics Co., Ltd.
	Additional name(s) of conveying party(ies) attached?  YES X NO	Internal Address: Street Address:
3.	Nature of conveyance:	San #16 Banwol-Ri, Taean-Eup  City: Hwasung-City  State: Gyeonggi-Do  Country/Zip: KOREA 445-701  Additional name(s) & address(es) attached?
	Execution Date: December 20, 2007	YES X NO
5.	Application number(s) or patent number(s):  If this document is being filed together with a new application, the exect A. Patent Application No.(s):	B. Patent No.(s):
	Name: Monica H. Choi Law Office of Monica H. Choi Address: P.O. Box 3424 City: Dublin State: Ohio Zip: 43016-0204	7. Total Fee (37 CFR 3.41)
	bonore	
9.	Statement and signature.  To the best of my knowledge and belief, the foregoing inti is a true copy of the original document.  Monica H. Choi, Reg. No. 41,671  Name of Person Signing  Signature	formation is true and correct and any attached copy    01/07/2008 HMARZI1 00000056 12006682   40.60 0P
	Atty. Docket No.: S07-37  Total number	er of pages including cover sheet, attachments and document: Three (3)

**PATENT** REEL: 020382 FRAME: 0131

## <u>ASSIGNMENT</u>

Serial No.:
Filing Date:

In consideration of One Dollar (\$1.00) and other good and valuable considerations in hand paid, the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assigns to:

## SAMSUNG ELECTRONICS CO., LTD. a corporation having a primary place of business in Suwon-si, Gyeonggi-do, Republic of Korea

its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, entitled:

## DATA OUTPUT CIRCUIT IN SEMICONDUCTOR MEMORY DEVICE

and identified as:	77 28 %.	Serial Post	
· & .	Case No. S07-37		
n		Virian Com	

in the Law Office of Monica H. Choi and in said application and any and all other applications, both United States and foreign, which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States and foreign countries, which may be obtained on any of said applications, and in any reissue or extension of such patents, and further assigns to said assignees the priority right provided by the International Convention.

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The undersigned hereby authorizes and requests the Commissioner of Patents and Trademarks to issue said Letters Patent to said assignees. 

The undersigned hereby authorizes and requests the attorneys of record in said application to insert in this assignment the filing date and serial number of said application when officially known, and the date of execution of the application.

The undersigned warrants himself to be the owner of the entire right, title and interest in said invention or improvements and to have the right to make this assignment, and further warrants that there are no outstanding prior assignments, licenses; or other encumbrances on the interest herein assigned.

For said considerations the undersigned hereby agrees, upon the request and at the expense of said assignees, its successors and assigns, to execute any and all divisional, continuation and substitute applications for said invention or improvements, and any necessary oath, affidavit or declaration relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application and any and all applications and other documents for Letters Patent in foreign countries on said invention or improvements, that said assignees, its successors or assigns may deem necessary or expedient, and for the said considerations the undersigned authorize said assignees to apply for patents for said invention or improvements in its own name in such countries where such procedure is proper and further

PATENT

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agree, upon the request of said assignees, its successors and assigns, to cooperate to the best of the ability of the undersigned with said assignees, its successors and assigns, in any proceedings or transactions involving such applications or patents, including the preparation and execution of preliminary statements, giving and producing evidence, and performing any and all other acts necessary to obtain, maintain and enforce said Letters Patent, both United States and foreign, and vests all rights therein hereby conveyed in the assignees, its successors and assigns, whereby said Letters Patent will be held and enjoyed by the said assignees, its successors and assigns, to the full end of the term for which said Letters Patent will be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

TARK SEON PARK

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TAEK-SEON PARK

SUNG-MIN YIM

Dec. 20\_ 2009

DATE

Hec. so. sov DATE

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