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SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

## **CONVEYING PARTY DATA**

Name	Execution Date
Chang-han Choi	12/15/2008
Ho-keun Cho	12/15/2008
Byung-gil Choi	12/15/2008
Ki-sung Kim	12/15/2008
Jong-chul Park	12/15/2008
Jong-soo Seo	12/15/2008

### **RECEIVING PARTY DATA**

Name:	Samsung Electronics Co., Ltd.		
Street Address: 416 Maetan-dong, Yeongtong-gu			
Internal Address:	Suwon-si		
City:	Gyeonggi-do		
State/Country:	REPUBLIC OF KOREA		

### PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	12350344	

## **CORRESPONDENCE DATA**

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NAME OF SUBMITTER:	Audra Wooten
	PATENT

Total Attachments: 7
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PATENT REEL: 022075 FRAME: 0288

#### ASSIGNMENT

THIS ASSIGNMENT, made by us, Chang-han Choi, citizen of the Republic of Korea, residing at 103-1902, Solnae Maeul Hyundai Apt., Mabuk-dong, Giheung-gu, Yongin-si, Gyeonggi-do, Republic of Korea; Ho-keun Cho, citizen of the Republic of Korea, residing at 103-1103, Yeonwon Maeul Samsung Myeongga, Bojeong-dong, Giheung-gu, Yongin-si, Gyeonggi-do, Republic of Korea; Byung-gil Choi, citizen of the Republic of Korea residing at Rm. 201, Jinsung Mansion, 476-61, Gongse-dong, Giheung-gu, Yongin-si, Gyeonggi-do, Republic of Korea; Ki-sung Kim, citizen of the Republic of Korea residing at 102-516, Jugong Apt., Daebang-dong, Dongjak-gu, Seoul, Republic of Korea; Jong-chul Park, citizen of the Republic of Korea residing at 1-1210, Shindong-a Apt., Bon-dong, Dongjak-gu, Seoul, Republic of Korea, residing at 303-1204, Sinyeongtong Hyundai Apt., Banwol-dong, Hwaseong-si, Gyeonggi-do, Republic of Korea;

WITNESSETH: That,

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WHEREAS, we are the joint inventors of certain new and useful improvements in PHASE-CHANGE RANDOM ACCESS MEMORY DEVICES AND RELATED METHODS OF OPERATION for which an application for United States Letters Patent has been filed, or is being filed concurrently, in the United States Patent and Trademark Office. We hereby authorize and request Myers Bigel Sibley & Sajovec, P.A., to insert here in parentheses (Application No. 12/350, 344, filed 1-8-09) the filing date and application number of said application when known or to file this Assignment concurrently with the application, and

WHEREAS, Samsung Electronics Co., Ltd., a Korean corporation having a principal place of business at 416 Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea, hereinafter referred to as assignee, is desirous of acquiring the entire right, title and interest in and to said invention as described in said application, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold and by these presents do hereby sell, assign, transfer and convey unto the said assignee, its successors and assigns, the entire right, title and interest in and to the said invention and application, and in and to any and all continuations, continuations-in-part, or divisions thereof,

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and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted, together with the right to claim the priority of said application in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

We hereby request that said Letters Patent be issued in accordance with this assignment.

We further covenant and agree that, at the time of the execution and delivery of these presents, we possess full title to the invention and application above-mentioned, and that we have the unencumbered right and authority to make this assignment.

We further covenant and agree to bind our heirs, legal representatives and assigns, promptly to communicate to said assignee or its representatives any facts known to us relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said assignee, its successors, assigns and other legal representatives.

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# ${\bf ASSIGNMENT-CONTINUED}$

IN WITH	SS WHEREOF, I have hereunto set my hand and seal on this, 2008.	<u> </u>
	Ho-keun Cho (SEAL)	
Witnessed by:		
Date:		

of	IN WITNESS WHEREOF, I have hereunto set my hand and seal on this day, 2008.
	Byung-gil choi (SEAL)
Witne	ssed by:
Date:	

of	IN WITN	TITNESS WHEREOF, I have hereunto set my hand and seal on this //s		
		Ki-sung Kim	(SEAL)	
Witn	essed by:			
Date:				

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of	IN WITNES	INESS WHEREOF, I have hereunto set my hand and seal on this			
		Jong-chul Park (SEAL)			
Witne	essed by:				
Date:					

of	IN WITNESS WHEREOF, I have hereunto set my hand and seal on this				
		Jong-soo	soo Jeo	(SEAL)	
Witne	essed by:				
Date:					

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