Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
Sun Pil Youn	04/02/2008
Jin Tae Kang	04/02/2008
Young Jae Joo	04/02/2008
Hyeong Jun Kim	04/02/2008
Jae Min Shin	04/02/2008

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:	12062905	

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	5649-2400
NAME OF SUBMITTER:	Candi L. Riggs

PATENT REEL: 020758 FRAME: 0484

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Total Attachments: 6
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PATENT REEL: 020758 FRAME: 0485

ASSIGNMENT

THIS ASSIGNMENT, made by us, **Sun-Pil Youn**, citizen of the Republic of Korea, residing at 1014-702, Jugong Apt. 10-danji, Unseo-dong, Jung-gu, Incheon, Republic of Korea; **Jin-Tae Kang**, citizen of the Republic of Korea, residing at 111-1104, Daewoo Prugio Apt., Gisan-dong, Hwaseong-si, Gyeonggi-do, Republic of Korea; **Young-Jae Joo**, citizen of the Republic of Korea, residing at 101-902, Geumhwa Maeul Daewoo Hyundai Apt., Sanggal-dong, Giheung-gu, Yongin-si, Gyeonggi-do, Republic of Korea; **Hyeong-Jun Kim**, citizen of the Republic of Korea, residing at 28-505, Miseong Apt., Apgujeong-dong, Gangnam-gu, Seoul, Republic of Korea; and **Jae-Min Shin**, citizen of the Republic of Korea, residing at 106-1302, Hwanggol Maeul 1-danji Apt., Yeongtong-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea;

WITNESSETH: That,

WHEREAS, we are the joint inventors of certain new and useful improvements in METHODS OF FABRICATING MULTI-BIT PHASE-CHANGE MEMORY

DEVICES AND DEVICES FORMED THEREBY 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. 12/062 905, filed 4/4/2004) 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, 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

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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.

assignee, its successors, assigns and other legal represe	entatives.
IN WITNESS WHEREOF, I have hereunto set	my hand and seal on this day
of April , 200 p.	
Sun-Pil Youn	(SEAL)
Witnessed by:	
Date:	

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윤선필01000993125419180 20080402135718

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IN WITN	ESS WHEREOF, I have he	ereunto set my hand and seal	on this $\underline{\varphi_2}$ day
of April	, 200 <u>\&</u> .		
	Jin-Tae Kan		
Witnessed by:		•	
Date:			

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IN WITN	ESS WHEREOF, I have hereunto set my hand and seal on this day
of April.	, 200 <u>&</u> .
	Young-Jae Joo (SEAL)
Witnessed by:	
Date:	

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of	IN WITNES	SS WHEREOF, I have hereunto set my hand and seal on this, 200 8	2	_ day
		Hyeong -Jun Kim (SEAL)		
Witne	essed by:			
Date:				

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PATENT REEL: 020758 FRAME: 0490

	N WITNE			unto set my l	nand and seal on thi	is <u></u> day
			Jae-Min Shin	skin	_(SEAL)	
Witnesse	ed by:					
51	in-lie	Hon	and the state of t			
Date:	2008.	4.02				

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RECORDED: 04/04/2008

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PATENT REEL: 020758 FRAME: 0491