

PATENT ASSIGNMENT

Electronic Version v1.1
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SUBMISSION TYPE:	NEW ASSIGNMENT								
NATURE OF CONVEYANCE:	ASSIGNMENT								
CONVEYING PARTY DATA									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Yoon-Jong SONG</td> <td>10/29/2007</td> </tr> <tr> <td>Kyung-Chang RYOO</td> <td>10/26/2007</td> </tr> <tr> <td>Dong-Won LIM</td> <td>10/26/2007</td> </tr> </tbody> </table>		Name	Execution Date	Yoon-Jong SONG	10/29/2007	Kyung-Chang RYOO	10/26/2007	Dong-Won LIM	10/26/2007
Name	Execution Date								
Yoon-Jong SONG	10/29/2007								
Kyung-Chang RYOO	10/26/2007								
Dong-Won LIM	10/26/2007								
RECEIVING PARTY DATA									
Name:	Samsung Electronics Co., Ltd.								
Street Address:	416 Maetan-dong, Yeongtong-gu, Suwon-si								
City:	Gyeonggi-do								
State/Country:	KOREA, REPUBLIC OF								
PROPERTY NUMBERS Total: 1									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>11932781</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	11932781				
Property Type	Number								
Application Number:	11932781								
CORRESPONDENCE DATA									
Fax Number:	(503)274-4622								
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>									
Phone:	(503)222-3613								
Email:	docketing@techlaw.com								
Correspondent Name:	Hosoon Lee								
Address Line 1:	210 SW Morrison Street								
Address Line 2:	Suite 400								
Address Line 4:	Portland, OREGON 97204								
ATTORNEY DOCKET NUMBER:	8750-215								
NAME OF SUBMITTER:	Hosoon Lee								

Total Attachments: 3
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PATENT

REEL: 020048 FRAME: 0033

500388461

OP \$40.00 11932781

PATENT APPLICATION
Docket No.: 8750-215
Client Ref. No.: SPX200609-0012US

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) **Yoon-Jong SONG**
- (2) **Kyung-Chang RYOO**
- (3) **Dong-Won LIM**

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:

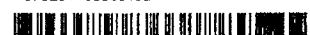
SAMSUNG ELECTRONICS CO., LTD.
416 MAETAN-DONG, YEONGTONG-GU
SUWON-SI, GYEONGGI-DO
REPUBLIC OF KOREA

(hereinafter designated "ASSIGNEE") the entire right, title and interest in and to the invention as defined in 35 USC §100, for the United States of America, the invention entitled:

PHASE CHANGE MEMORY DEVICES HAVING DUAL LOWER ELECTRODES AND METHODS OF FABRICATING THE SAME

for which an application for Letters Patent of the United States of America has been executed even date 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 DATES INDICATED BESIDE OUR SIGNATURES:


<u>INVENTOR(S)</u>	<u>DATE SIGNED</u>	<u>WITNESSED</u>
(1) <u>Yoon-Jong SONG</u> Yoon-Jong SONG	<u>Oct. 29, 2001</u>	_____
(2) _____ Kyung-Chang RYOO	_____	_____
(3) _____ Dong-Won LIM	_____	_____

PLEASE RETURN RECORDED ASSIGNMENT TO:

Alan T. McCollom
Marger Johnson & McCollom
210 S.W. Morrison Street, Suite 400
Portland, OR 97204

Please sign
concurrently
with Oath or Declaration
and Power of Attorney

SIGNED ON THE DATES INDICATED BESIDE OUR SIGNATURES:

<u>INVENTOR(S)</u>	<u>DATE SIGNED</u>	<u>WITNESSED</u>
(1) _____ Yoon-Jong SONG	_____	_____
(2) <i>Kyung-Chang RYOO</i> Kyung-Chang RYOO	<i>26th, oct 2007</i> _____	 _____
(3) <i>Dong-Won Lim</i> Dong-Won LIM	<i>26th, OCT, 2007</i> _____	<i>Lim Dongwon</i> _____

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