

PATENT ASSIGNMENT

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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>Bong Jin Kuh</td> <td>09/18/2007</td> </tr> <tr> <td>Yong Ho Ha</td> <td>09/18/2007</td> </tr> <tr> <td>Han Bong Ko</td> <td>09/18/2007</td> </tr> <tr> <td>Doo Hwan Park</td> <td>09/18/2007</td> </tr> <tr> <td>Hee Ju Shin</td> <td>09/18/2007</td> </tr> <tr> <td>Sang Wook Lim</td> <td>09/18/2007</td> </tr> </tbody> </table>		Name	Execution Date	Bong Jin Kuh	09/18/2007	Yong Ho Ha	09/18/2007	Han Bong Ko	09/18/2007	Doo Hwan Park	09/18/2007	Hee Ju Shin	09/18/2007	Sang Wook Lim	09/18/2007
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RECEIVING PARTY DATA															
Name:	Samsung Electronics Co., Ltd.														
Street Address:	416 Maetan-dong, Yeongtong-gu														
Internal Address:	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>11860975</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	11860975										
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CORRESPONDENCE DATA															
Fax Number:	(919)854-1401														
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>															
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Correspondent Name:	Kirsten S. Carlos/MBSS														
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Address Line 4:	Raleigh, NORTH CAROLINA 27612														
ATTORNEY DOCKET NUMBER:	5649-2280														

CH \$40.00 11860975

NAME OF SUBMITTER:

Kirsten S. Carlos

Total Attachments: 4

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ASSIGNMENT

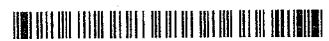
THIS ASSIGNMENT, made by us, **Bong-Jin KUH**, citizen of the Republic of Korea, residing at 234-1502 Hwanggolmaeul 2-danji Poonglim Apt., Yeongtong-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea; **Yong-Ho HA**, citizen of the Republic of Korea, residing at 104-1408 Gisan Best Ville, 100-1 Yu-ri, Bongdam-eup, Hwaseong-si, Gyeonggi-do, Republic of Korea ; **Han-Bong KO**, citizen of the Republic of Korea, residing at 105-606 Neulbeotmaeul Shinchang 1-cha Apt., Byeongjeom-dong, Hwaseong-si, Gyeonggi-do, Republic of Korea; **Doo-Hwan PARK**, citizen of the Republic of Korea, residing at Suite 201, 978-10 Daechi-dong, Gangnam-gu, Seoul, Republic of Korea; **Hee-Ju SHIN**, citizen of the Republic of Korea, residing at San 24, Nongseo-dong, Giheung-gu, Yongin-si, Gyeonggi-do, Republic of Korea and **Sang-Wook LIM**, citizen of the Republic of Korea, residing at, 210-2106 Jukhyeonmaeul I-Park Apt., Bojeong-dong, Giheung-gu, Yongin-si, Gyeonggi-do, Republic of Korea;

WITNESSETH: That,

WHEREAS, we are the joint inventors of certain new and useful improvements in **PHASE-CHANGE MATERIAL LAYER AND PHASE-CHANGE MEMORY DEVICE INCLUDING THE PHASE-CHANGE MATERIAL LAYER** 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. 11/860,975, filed 9/25/07) 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,



ASSIGNMENT – CONTINUED

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.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 18 day of September, 2007.

Bong-Jin Kuh (SEAL)
Bong-Jin KUH

Witnessed by:

Date: _____



ASSIGNMENT - CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 18 day of September, 2007.

Yongho Ha (SEAL)
Yong-Ho HA

Witnessed by:

Date: _____

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 18 day of September, 2007.

Han-Bong Ko (SEAL)
Han-Bong KO

Witnessed by:

Date: _____

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 18 day of September, 2007.

Park Doo Hwan (SEAL)
Doo-Hwan PARK

Witnessed by:

Date: _____



ASSIGNMENT - CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 18 day
of September, 2007.

Hee-Ju SHIN (SEAL)
Hee-Ju SHIN

Witnessed by:

Date: _____

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 18 day
of September, 2007.

Lim, Sangwook (SEAL)
Sang-Wook LIM

Witnessed by:

Date: _____

