

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

| 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 style="width: 30%;">Execution Date</th> </tr> </thead> <tbody> <tr> <td>Seung-woo RYU</td> <td>04/21/2010</td> </tr> <tr> <td>Jae-min RYU</td> <td>04/21/2010</td> </tr> <tr> <td>Chul LEE</td> <td>04/21/2010</td> </tr> </tbody> </table> | | Name | Execution Date | Seung-woo RYU | 04/21/2010 | Jae-min RYU | 04/21/2010 | Chul LEE | 04/21/2010 |
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| Seung-woo RYU | 04/21/2010 | | | | | | | | |
| Jae-min RYU | 04/21/2010 | | | | | | | | |
| Chul LEE | 04/21/2010 | | | | | | | | |
| RECEIVING PARTY DATA | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Name:</td> <td>SAMSUNG ELECTRONICS CO., LTD.</td> </tr> <tr> <td>Street Address:</td> <td>416, Maetan-dong, Yeongtong-gu</td> </tr> <tr> <td>City:</td> <td>Suwon-si, Gyeonggi-do 443-742</td> </tr> <tr> <td>State/Country:</td> <td>REPUBLIC OF KOREA</td> </tr> </table> | | Name: | SAMSUNG ELECTRONICS CO., LTD. | Street Address: | 416, Maetan-dong, Yeongtong-gu | City: | Suwon-si, Gyeonggi-do 443-742 | State/Country: | REPUBLIC OF KOREA |
| Name: | SAMSUNG ELECTRONICS CO., LTD. | | | | | | | | |
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| State/Country: | REPUBLIC OF KOREA | | | | | | | | |
| PROPERTY NUMBERS Total: 1 | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Property Type</th> <th style="width: 70%;">Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12771203</td> </tr> </tbody> </table> | | Property Type | Number | Application Number: | 12771203 | | | | |
| Property Type | Number | | | | | | | | |
| Application Number: | 12771203 | | | | | | | | |
| CORRESPONDENCE DATA | | | | | | | | | |
| <p>Fax Number: (202)315-3758</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 202-429-0020</p> <p>Email: info@nsiplaw.com</p> <p>Correspondent Name: North Star Intellectual Property Law, PC</p> <p>Address Line 1: P.O. Box 34688</p> <p>Address Line 4: Washington, DISTRICT OF COLUMBIA 20043</p> | | | | | | | | | |
| ATTORNEY DOCKET NUMBER: | 12000.SMG.0742 | | | | | | | | |
| NAME OF SUBMITTER: | Rachael Lea Leventhal | | | | | | | | |
| <p>Total Attachments: 5</p> <p>source=12000SMG0742_Assignment#page1.tif</p> <p>source=12000SMG0742_Assignment#page2.tif</p> <p>source=12000SMG0742_Assignment#page3.tif</p> | | | | | | | | | |

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ASSIGNMENT

For valuable consideration, We,

- (1) Name: **Seung-woo RYU**
Address: 203-1301 Yuwon Jeil 2cha Apt., 7-2, Dangsang-dong 5-ga,
Yeongdeungpo-gu, Seoul, Republic of Korea
Nationality: Republic of Korea
- (2) Name: **Jae-min RYU**
Address: 101ho, Hanseo Villa, Ji-dong, Paldal-gu, Suwon-si,
Gyeonggi-do, Republic of Korea
Nationality: Republic of Korea
- (3) Name: **Chul LEE**
Address: 534-1801 Sinnamusil 5danji Apt., Yeongtong 2-dong,
Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea
Nationality: Republic of Korea

hereby assign to:

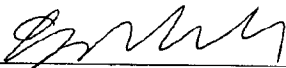
SAMSUNG ELECTRONICS CO., LTD., a Republic of Korea corporation
having principal executive offices at: 416, Maetan-dong, Yeongtong-gu, Suwon-si,
Gyeonggi-do 443-742, Republic of Korea and

its successor and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of U.S. Patent Application Number 12/771,203 filed April 30, 2010 at the U.S. Patent & Trademark Office signed by us, with title **MEMORY APPARATUS AND METHOD THEREFOR**, and we authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting above the filing date and application serial number of said application when known; this Assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further

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compensation to perform such lawful acts and to sign such further applications, assignments, preliminary statements and other lawful documents as the Assignee may reasonably request to effectuate fully this Assignment.

IN WITNESS WHEREOF, I hereto set my hand and seal this 24 day of April, 2010

Signature: 
Seung-woo RYU


City of Suwon :

Country of korea :

Before me this 24 day of April, 2010, personally appeared known to me to be the person whose name is subscribed to the foregoing Assignment and acknowledged that they executed the same as his free act and deed for the purposes therein contained.

Witness or Notary Public

IN WITNESS WHEREOF, I hereto set my hand and seal this 21 day of April, 2010

Signature: 
Jae-min RYU

City of Seoul :

:

Country of Korea :

Before me this 21 day of April, 2010, personally appeared known to me to be the person whose name is subscribed to the foregoing Assignment and acknowledged that they executed the same as his free act and deed for the purposes therein contained.

Witness or Notary Public

IN WITNESS WHEREOF, I hereto set my hand and seal this 21th day of
April, 2010

Signature: Chul Lee
Chul LEE

City of _____ :

:

Country of _____ :

Before me this _____ day of _____, 2010, personally appeared
known to me to be the person whose name is subscribed to the foregoing Assignment and
acknowledged that they executed the same as his free act and deed for the purposes therein
contained.

Witness or Notary Public