

## PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT																				
NATURE OF CONVEYANCE:	ASSIGNMENT																				
<b>CONVEYING PARTY DATA</b>																					
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Hyun-Jun Sim</td> <td>04/18/2012</td> </tr> <tr> <td>Jae-Young Park</td> <td>04/18/2012</td> </tr> <tr> <td>Hyun-Seung Kim</td> <td>04/18/2012</td> </tr> <tr> <td>Sang-Bom Kang</td> <td>04/18/2012</td> </tr> <tr> <td>Sun-Ghil Lee</td> <td>04/18/2012</td> </tr> <tr> <td>Hyun-Deok Yang</td> <td>04/18/2012</td> </tr> <tr> <td>Kang-Hun Moon</td> <td>04/18/2012</td> </tr> <tr> <td>Han-Ki Lee</td> <td>04/18/2012</td> </tr> <tr> <td>Sang-Mi Choi</td> <td>04/18/2012</td> </tr> </tbody> </table>		Name	Execution Date	Hyun-Jun Sim	04/18/2012	Jae-Young Park	04/18/2012	Hyun-Seung Kim	04/18/2012	Sang-Bom Kang	04/18/2012	Sun-Ghil Lee	04/18/2012	Hyun-Deok Yang	04/18/2012	Kang-Hun Moon	04/18/2012	Han-Ki Lee	04/18/2012	Sang-Mi Choi	04/18/2012
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Sang-Mi Choi	04/18/2012																				
<b>RECEIVING PARTY DATA</b>																					
Name:	Samsung Electronics Co., Ltd.																				
Street Address:	416, Maetan-dong, Yeongtong-gu, Gyeonggi-do																				
City:	Suwon-si																				
State/Country:	KOREA, REPUBLIC OF																				
<b>PROPERTY NUMBERS Total: 1</b>																					
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13459740</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13459740																
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Application Number:	13459740																				
<b>CORRESPONDENCE DATA</b>																					
Fax Number:	(617)742-7774																				
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OP \$40.00 13459740

PATENT

ATTORNEY DOCKET NUMBER:	SAM-1572
NAME OF SUBMITTER:	Anthony P. Onello, Jr.
Total Attachments: 3 source=1572_execassign#page1.tif source=1572_execassign#page2.tif source=1572_execassign#page3.tif	

ASSIGNMENT

We, Hyun-Jun Sim, of #449-2201 Solbit Maeul Ssangyong Yega Apt., Bansong-dong, Hwaseong-si, Gyeonggi-do, Republic of Korea; Jae-Young Park, of #502-1703 ManHyeon Maeul 5 Danji Hyundai I-Park Apt., Sanghyeon-dong, Suji-gu, Yongin-si, Gyeonggi-do, Republic of Korea; Hyun-Seung Kim, of #106-2303 Jungdong Palice County Apt., 1289 Jung-dong, Wonmi-gu, Bucheon-si, Gyeonggi-do, Republic of Korea; Sang-Bom Kang, of #111-504 Banpo Apt., 919 Banpo-dong, Seocho-gu, Seoul, Republic of Korea; Sun-Ghil Lee, of #228-1403 Sibeom Hanbit Maeul Dongtan I-Park Apt., Bansong-dong, Hwaseong-si, Gyeonggi-do, Republic of Korea; Hyun-Deok Yang, of #101, 18-50 Sinwon-dong, Seocho-gu, Seoul, Republic of Korea; Kang-Hun Moon, of #307 Sinyeongville, 854-3 Naesammi-dong, Osan-si, Gyeonggi-do, Republic of Korea; Han-Ki Lee, of #855-903 Supsok Maeul Moamireado 1 Danji Apt., Neung-dong, Hwaseong-si, Gyeonggi-do, Republic of Korea; and Sang-Mi Choi, of #402 Chilseong Treville, 978-7 Siheung 3-dong, Geumcheon-gu, Seoul, Republic of Korea; having invented improvements in MANUFACTURING METHOD FOR SEMICONDUCTOR DEVICE identified as Attorney Docket No. SAM-1572, described in an application for Letters Patent of the United States, which application was filed on April 30, 2012, and assigned Serial No. 13/459,740 (in the event that the execution date, filing date and/or Serial No. are not entered above at the time we execute this document, and if such information is deemed necessary, we hereby authorize and request our attorneys at Onello & Mello, LLP, Eleven Beacon Street, Suite 605, Boston, Massachusetts 02108, USA, to insert above the execution date, filing date and/or Serial No. of said application, when known), for good and valuable consideration, receipt of which is hereby acknowledged from Samsung Electronics Co., Ltd., a Korean corporation having a place of business at 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea (and hereinafter called the Assignee, which term shall include its successors and assigns), do hereby sell, assign and transfer unto the Assignee our entire right, title, and interest in and throughout the United States of America (including its territories and dependencies) and all countries foreign thereto, in and to and under said application (which term shall include hereinafter where the context so admits all divisional, continuing, reissue and other patent applications based thereon) and the inventions (which term shall include each and every such invention, or part thereof) therein described, and any and all patents and like rights of exclusion (including extensions thereof) of any country which may be granted on or for said inventions or on said application;

And for the same consideration We do also hereby sell, assign, and transfer unto the Assignee, all our rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, and all other treaties of like purpose in respect of said inventions and said application, and We do hereby authorize the Assignee to apply in our name or its own name or its designee for patents and like rights of exclusion on or for said inventions in all countries, claiming (if the Assignee so desires) the priority of the filing date of said application under the provisions of said Convention, Treaty or any such other Convention or Treaty;


And for the same consideration, We do hereby agree for ourselves and for our heirs, executors, and administrators, promptly upon request of the Assignee to execute and deliver without further compensation any power of attorney, assignment, original, divisional, continuing, reissue or other application or applications for patent or patents or like rights of exclusion of any country, or other lawful documents and any further assurances that may be deemed necessary or desirable by the Assignee, fully to secure to it said right, title, and interest as aforesaid in and to said inventions, applications, and said several patents and like rights of exclusion (including extensions thereof) or any of them, all, however, at the expense of the Assignee, its successors, or assigns;

And We do hereby authorize and request the Commissioner of Patents and Trademarks of the United States of America and the corresponding Official of each country foreign thereto to issue to the Assignee, any and all patents and like rights of exclusion which may be granted in any country upon said United States application on or for said inventions;

And We do hereby covenant for ourselves and our legal representatives and agree with the Assignee, that We have granted no right or license to make, use, or sell said inventions to anyone except the Assignee, that prior to the execution of this deed our right, title, and interest in and to said inventions has not been otherwise encumbered by us, and that We have not executed and will not execute any instruments in conflict herewith.

First or Sole Inventor:

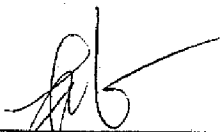
Signature:

  
\_\_\_\_\_  
Hyun-Jun Sim

Date: April 18, 2012

Second Joint Inventor:


Signature:

  
\_\_\_\_\_  
Jae-Young Park

Date: April 18, 2012

Third Joint Inventor:

Signature:

  
\_\_\_\_\_  
Hyun-Seung Kim

Date: April 18, 2012

Fourth Joint Inventor:

Signature:

  
\_\_\_\_\_  
Sang-Bom Kang

Date: April 18, 2012


Attorney Reference No.: SAM-1572

Fifth Joint Inventor:

Signature:   
Sun-Ghil Lee


Date: April 18, 2012

Sixth Joint Inventor:

Signature:   
Hyun-Deok Yang

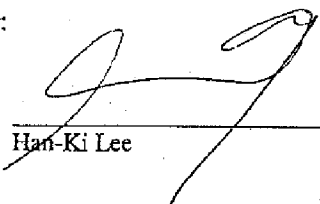
Date: April 18, 2012

Seventh Joint Inventor:

Signature:   
Kang-Hun Moon


Date: April 18, 2012

Eighth Joint Inventor:

Signature:   
Han-Ki Lee

Date: April 18, 2012

Ninth Joint Inventor:

Signature:   
Sang-Mi Choi

Date: April 18, 2012

ATTORNEY REFERENCE NO.: SAM-1572  
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