

## PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
JungWoo Seo	03/05/2012
RECEIVING PARTY DATA	
Name:	Samsung Electronics Co., Ltd.
Street Address:	416 Maetan-dong, Yeongtong-gu, Gyeonggi-do
City:	Suwon-si
State/Country:	REPUBLIC OF GEORGIA
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	13415165
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Address Line 1:	ELEVEN BEACON STREET
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ATTORNEY DOCKET NUMBER:	SAM-1545
NAME OF SUBMITTER:	Anthony P. Onello, Jr.
Total Attachments: 2 source=1545_execassign#page1.tif source=1545_execassign#page2.tif	

OP \$40.00 13415165

ASSIGNMENT

I, JungWoo Seo of, 421-303, Solbit Maeul SeoheaGrangbl Apt., Bansong-dong, Hwaseong-si, Gyeonggi-do, Republic of Korea, having invented improvements in SEMICONDUCTOR DEVICES AND METHODS FOR FABRICATING THE SAME identified as Attorney Docket No. SAM-1545, described in an application for Letters Patent of the United States, which application was filed on March 8, 2012, and assigned Serial No. 13/415,165 (in the event that the execution date, filing date and/or Serial No. are not entered above at the time I execute this document, and if such information is deemed necessary, I hereby authorize and request my 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 my 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 I do also hereby sell, assign, and transfer unto the Assignee, all my 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 I do hereby authorize the Assignee to apply in my 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, I do hereby agree for myself and for my 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 I 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 I do hereby covenant for myself and my legal representatives and agree with the Assignee, that I 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 my right, title, and interest in and to said inventions has not been otherwise encumbered by me, and that I have not executed and will



Attorney Reference No.: SAM-1545

not execute any instruments in conflict herewith.

First or Sole Inventor:

Signature: Jung Woo Seo  
Jung Woo Seo

Date: 2012. 3. 5

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