Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYP	E:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT		
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		Name	Execution Date	
SUNG-IL CHANG			07/15/2011	
YOUNGWOO PAR	ĸĸ		07/15/2011	
KWANG SOO SEC	DL		07/14/2011	
RECEIVING PART	Y DATA			
Name: Samsung Electronics Co., Ltd				
Street Address:	416, Maetan-dor	416, Maetan-dong		
City:	Yeongtong-gu, S	Suwon-si, Gyeonggi-do		
State/Country:	KOREA, REPUE			
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ASSIGNMENT DOCKET NO.: 8836-715 (IE-200417-US)

AS A BELOW NAMED INVENTOR, I, and each of us, individually hereby declare that: IN CONSIDERATION of the sum of TEN (\$10.00) dollars or the equivalent thereof, and other good and valuable consideration, the receipt of which from the hereinafter named Assignee is hereby acknowledged, I do hereby sell, assign and forever grant and convey unto:

ASSIGNEE: Samsung Electronics Co., Ltd.

ADDRESS: 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, KOREA

Who is my Assignee, and to the successes and assigns of my Assignee, all my right, title and interest, in and for the United States of America and all other countries, including all rights of priority, in and to the invention entitled:

TITLE: THREE-DIMENSIONAL SEMICONDUCTOR DEVICE

invented by me (if only one inventor is named below) or us (if more than one inventor is named below) and described in an application for a United States patent the specification of which is either attached hereto or otherwise accompanies this Assignment or indicates an attorney docket no.: 8836-715 (IE-200417-US) or is more particularly identified as:

executed on even date herewith, or

_____ Serial No. ______ filed in the U.S. Patent & Trademark Office on _____, or

executed on _____

and in and to all United States patents which may be granted thereon and therefore, and in and to all certificates of corrections, divisions, continuations, continuations-in-part, reissued and reexamined patents, and to any extensions thereof, said interest being the entire ownership of the patent when granted, to be held and enjoyed by said **SAMSUNG ELECTRONICS CO., LTD.**, my Assignee, its successors, assigns or other legal representatives, to the full end of the term, terms, or any extension or renewal thereof, for which said patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment, sale and conveyance had not been made;

AND I hereby covenant and agree to sign and execute any further documents or instruments which may from time-to-time be either necessary, lawful, proper or requested by the Assignee, in the prosecution of the above-named application or in the preparation and prosecution of any certificate of correction, division, continuation, continuation-in-part, reissue, re-examination, in any amendment, extension, or interference proceeding, whether administrative or judicial, or otherwise, to secure the title hereto in said Assignee;

AND I do hereby authorize and request the Commissioner of Patents and Trademarks to issue said Patent or Patents to the Assignee, and I hereby appoint as my, or our attorney, and authorize and request <u>Frank Chau. Reg. No. 34,136</u>, to insert on this Assignment any further identification or to complete such identification which may be either necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Page 1 of 2

PATENT REEL: 026702 FRAME: 0949

IN WITNESS WHEREOF, I and we have set our hands and seals on the dates written beside my and our respective names:

INVENTOR(S)

1) SUNG-IL CHANG

YOUNGWOO PARK

2)

3) WANG SOO SEOL

Date Signed

7/15/2011

1/15/2011 14th/July/2011

Page 2 of 2

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PATENT **REEL: 026702 FRAME: 0950**

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RECORDED: 08/04/2011