503064267 11/17/2014

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JIN-BUM KIM	10/29/2014
BON-YOUNG KOO	10/29/2014
SEOK-HOON KIM	10/29/2014
CHUL KIM	10/29/2014
KWAN-HEUM LEE	10/29/2014
BYEONG-CHAN LEE	10/29/2014
SU-JIN JUNG	10/29/2014

RECEIVING PARTY DATA

Name:	Samsung Electronics Co., Ltd.
Street Address:	129, Samsung-ro, Yeongtong-gu
Internal Address:	Gyeonggi-do
City:	Suwon-si
State/Country:	KOREA, REPUBLIC OF
Postal Code:	443-742

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14543140

CORRESPONDENCE DATA

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using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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Correspondent Name: MYERS BIGEL SIBLEY & SAJOVEC

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ATTORNEY DOCKET NUMBER:	5649-3966
NAME OF SUBMITTER:	MEREDITH DOWNING
SIGNATURE:	/mld/

503064267 PATENT REEL: 034188 FRAME: 0074

DATE SIGNED: 11/17/2014		
	This document serves as an Oath/Declaration (37 CFR 1.63).	
Total Attachments: 5		
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source=5649-3966_Comb_Decl_Assgn	#page2.tif	
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source=5649-3966_Comb_Decl_Assgn	#page5.tif	

PATENT REEL: 034188 FRAME: 0075

COMBINED DECLARATION (37 CFR §1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM¹

The undersigned acknowledges that this document is being used both as an assignment of the invention and as the declaration (37 CFR 1.63) for a Utility or Design Application.

WHEREAS, the undersigned, hereinafter referred to collectively as Assignor, has invented:

Title:	semiconductor devices having composite spacers containing			
	DIFFERENT	DIELECTRIC MATERIALS		
for which As	ssignor is about to make or has m	nade United States or Inte	rnational application	
WHEREAS, a	s a below named inventor(s), I/(v	we) hereby declare that:		
Section I. D	eclaration			
This declara	tion is directed to:			
\boxtimes	The attached U.S. non-provisi	ional patent application, o	or	
	U.S. non-provisional patent ap		, filed	
	PCT international patent appli	cation number	, filed on	
The above-io	dentified application was made o	r authorized to be made	by me (us).	
	e that I am (we are) the original i		entors) of a claimed	
	y acknowledge that any willful fa under 18 U.S.C. 1001 by fine or in			
¹ This form re	quires the use of an Application Data Sh	neet.		
SEC Ref No.	IE-201303-012-1-US0	Attorney Ref No.	5649-3966	
COMBINED D	ECLARATION (37 CER 1 63) FOR LITH	Ι ΙΤΥ ΡΔΤΕΝΤ ΔΡΡΙΙΟΔΤΙΩΝ Δ	AND ASSIGNMENT FORM	

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I hereby state that I have reviewed and understand the contents of the above identified application, including the claims.

I acknowledge that I am aware of the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56.

Section II. Assignment

In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, the undersigned hereby sell(s) and assign(s) to

Samsung Electronics Co., Ltd.

having an address at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-742, Republic of Korea (hereinafter designated as the Assignee), the entire (100%) right, title and interest for the United States as defined in 35 USC §100, in the invention described in the application identified in Section I of this document.

Assignor hereby confirms any prior assignment to Assignee, and to the extent that Assignor has not already done so, agrees to assign, and hereby does, sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the inventions as described in the aforesaid application, to the aforesaid application itself, and all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application, and any United States or foreign Letters Patent, utility model, or other similar rights which may be granted thereon, including reissues, reexaminations and extensions thereof, and all copyright rights throughout the world in the aforesaid application and the subject matter disclosed therein, these rights, title and interest to be held and enjoyed by Assignee to the full end of the term for which the Letters Patent, utility model, or other similar rights, are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to sue for, and recover for past infringements of, or liabilities for, any of the rights relating to any of the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-

SEC Ref No.	IE-201303-012-1-US0	Attorney Ref No.	5649-3966	
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COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM

SAMSUNG ELECTRONICS CO., LTD.

examination, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee without further or other compensation than that above set forth;

Assignor hereby covenants that no assignment, sale, license, agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

Assignor hereby requests the United States Patent and Trademark Office to issue the Letters Patent of the United States of America to Assignee, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue the Letters Patent, Utility Model Registration or other similar right to Assignee.

The undersigned hereby grant(s) the law firm of Myers Bigel Sibley & Sajovec, P.A. the power to insert on this Declaration and Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

Section III. Inventor(s)/Assignor(s) Signature(s)

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FIRST NVENTOR/ASSIGNOR	KIM	Jin-Bum	
	, , , , , , , , , , , , , , , , , , , 		
SIGNATURE	JAK L	DATE	10, 29, 2014

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•			

Family Name	First Given Name	Second Given Name
коо	Bon-Young	
Bonyoung Koo	DATE	10/29/2014
Family Name	First Given Name	Second Given Name
KIM	Seok-Hoon	
Gook hoon Kim	DATE	10.29, 2014
Family Name	First Given Name	Second Given Name
KIM	Chul	
Chul Km	DATE	10.29,2014
	Family Name Family Name Family Name	Bonyoung Lob Family Name First Given Name KIM Seok-Hoon DATE Family Name First Given Name

SEC Ref No. IE-201303-012-1-US0 Attorney Ref No. 5649-3966

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PATENT REEL: 034188 FRAME: 0079 SAMSUNG ELECTRONICS CO., LTD.

LEGAL NAME OF FIFTH	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	LEE	Kwan-Heum	
1			1
SIGNATURE _	Lee lowanheum	DATE -	zol4. 10. 29

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SIXTH INVENTOR/ASSIGNOR	LEE Byeong-Chan		
		*	
SIGNATURE _	LEZ BYZONE	7 CHON DATE	2014.10.29

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SEVENTH INVENTOR/ASSIGNOR	JUNG	Su-Jin	
SIGNATURE	Jung Sujan	DATE	2014. (0.29

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