503859770 06/07/2016 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3906419

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
JINHYE BAE		05/03/2016
WONJUN LEE		05/03/2016
YOONSUNG HAN		05/03/2016
HOON HAN		05/03/2016
KYU-MAN HWANG		05/03/2016
YONGSUN KO		05/03/2016

Name:	SAMSUNG ELECTRONICS CO., LTD.
Street Address:	129, SAMSUNG-RO
Internal Address:	YEONGTONG-GU, GYEONGGI-DO
City:	SUWON-SI
State/Country:	KOREA, REPUBLIC OF
Postal Code:	16677

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15175463

CORRESPONDENCE DATA

Fax Number:						
		e-mail address first; if that is unsuccessful, it will be sent at is unsuccessful, it will be sent via US Mail.				
Phone:	919-8	19-854-1400				
Email:	gendres@myersbigel.com					
Correspondent Name:	MYERS BIGEL & SIBLEY, P.A.					
Address Line 1:	4140 PARKLAKE AVENUE					
Address Line 2:	SUITE 600					
Address Line 4:	RALEIGH, NORTH CAROLINA 27612					
ATTORNEY DOCKET NUMBER	:	5649-4520				
NAME OF SUBMITTER:		GAYLE ENDRES				
SIGNATURE:		/gee/				
DATE SIGNED:		06/07/2016				

Total Attachments: 5

source=5649-4520_Assignment#page1.tif source=5649-4520_Assignment#page2.tif source=5649-4520_Assignment#page3.tif source=5649-4520_Assignment#page4.tif source=5649-4520_Assignment#page5.tif

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: METHOD OF INSPECTING BY-PRODUCTS AND METHOD OF MANUFACTURING SEMICONDUCTOR DEVICE USING THE SAME

for which Assignor is about to make or has made United States or International application for patent.

WHEREAS, as a below named inventor(s), I/(we) hereby declare that:

Section I. Declaration

This declaration is directed to:

 \boxtimes

The attached U.S. non-provisional patent application, or



U.S. non-provisional patent application number ______, filed on ______, or

PCT international patent application number _______, filed on

The above-identified application was made or authorized to be made by me (us).

I (we) believe that I am (we are) the original inventor (original joint inventors) of a claimed invention in the above-identified application.

I (we) hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

 ¹ This form requires the use of an Application Data Sheet.

 SEC Ref No.
 IE-201506-084-1-USO
 Attorney Ref No.
 5649-4520

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

 9101680104722901254191223
 20100503101111

 Page 1 of 5
 014631462237871

REEL: 038834 FRAME: 0394

SAMSUNG ELECTRONICS CO., LTD.

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 16677, 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,

SEC Ref	No	IE-201506-084-1	L-USO	Attorney Ref No	· <u>5</u> 1	549-4520	
COMBIN	NED DECI	LARATION (37 CFR 1.6	3) FOR UTILITY	PATENT APPLICAT	NON AND AS	SIGNMENT FORM	v
M & 0 0 104722912541	91023-2	0/60503101111	Page 2	of 5		014631462237871 	
					REEL: 03	38834 FRA	ME: 0395

SAMSUNG ELECTRONICS CO., LTD.

divisional, renewal or substitute thereof, and as to letters patent any reissue, reexamination, 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, 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)

88801047

Family Name	First Given Name	Second Given Name
BAE	Jinhye	
	••••• k •••••••••••••••••••••••••••••••	
BAE JUNHYE	DAT:	: 2016-25.03
0 1506-084-1- US0	Attorney Ref No.	5649-4520
	BAE	BAE Jinhye

REEL: 038834 FRAME: 0396

LEGAL NAME OF	Family Name	First Given Name	Second Given Name	
INVENTOR/ASSIGNOR	LEE	Wonjun		
			I	
SIGNATURE	LEE Wonjun	DATE	2011.5.3	

LEGAL NAME OF	Family Name	First Given M	Vame	Second Giv	en Name
INVENTOR/ASSIGNOR	HAN	Yoonsung			
				l	
SIGNATURE	d'én		DATE	2016,5	3

LEGAL NAM FOURTH		Family Name	First Given Na	me Second Given N	lame
INVENTOR/AS		HAN	Hoon		
		11			
		A F.		DATE	
SIGN	INTINGE /	HEUT			
SIGN		KU	•••••••	2016.5.3	
SIGN		t ky	• • • • •		
SIGN		(RJ)			
SIGN					
SIGN					

REEL: 038834 FRAME: 0397

SAMSUNG ELECTRONICS CO., LTD.

Family Name	First Given Name	Second Given Name	
HWANG	Kyu-Man		
	b	L	
Mis	DATE	2016.05.03	
		HWANG Kyu-Man	

LEGAL NAME OF SIXTH	Family Name	First Given Name	Second Given Name	
INVENTOR/ASSIGNOR	КО	Yongsun	-	
SIGNATURE	MAL	DATE	20/6 . 57.03	

			·····			*
	SEC Ref No.	IE-201506-084-1-	- <u>USO</u> A	ttorney Ref No	5649-4520	. روم ه
	COMBINED DEC	LARATION (37 CFR 1.63) FOR UTILITY PA	TENT APPLICATION	AND ASSIGNMENT FORM	ttiti. Na an
⊌∛≋०ं:०	472291250181020 ;		Page S of S		01453(46223787)	
					PATENT	
RECO	ORDED: 06/07	7/2016		REE	L: 038834 FRAM	E: 0398