# 503717143 03/02/2016

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3763784

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
CHOONG-YEOL KIM	02/03/2016
MYUNG-BEOM PARK	02/03/2016
HAN-GYUL KO	02/04/2016
HWI-HYEON OH	02/04/2016
HYE-YOUNG JIN	02/16/2016

### **RECEIVING PARTY DATA**

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

## **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15058183

### **CORRESPONDENCE DATA**

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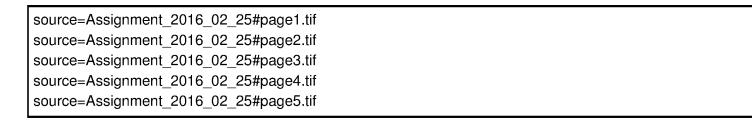
Address Line 4: FALLS CHURCH, VIRGINIA 22042

ATTORNEY DOCKET NUMBER:	253/1095_00
NAME OF SUBMITTER:	EUGENE M. LEE
SIGNATURE:	/Eugene M. Lee/
DATE SIGNED:	03/02/2016
	This document serves as an Oath/Declaration (37 CFR 1.63).

**Total Attachments: 5** 

PATENT REEL: 037867 FRAME: 0177

503717143



# COMBINED DECLARATION (37 CFR §1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM<sup>1</sup>

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:

Distriction Control	THODS OF MANUFACTURING SEMICONDUCTOR DEVICES INCLUDING IMPURITY SIONS
for which Aspatent.	ssignor is about to make or has made United States or International application for
WHEREAS, a	as a below named inventor(s), I/(we) hereby declare that:
Section I. D	eclaration
This declara	tion 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-i	dentified application was made or authorized to be made by me (us).
	ve that I am (we are) the original inventor (original joint inventors) of a claimed the above-identified application.
7 (7)	by acknowledge that any willful false statement made in this declaration is under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or
1 This form re	equires the use of an Application Data Sheet.
SEC Ref No.	IH-201504-005-1-US0 Attorney Ref No. 253/1095_00

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#### 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, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-examination, or extension

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### SAMSUNG ELECTRONICS CO., LTD.

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 LEE & MORSE, PC 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)

ſ	LEGAL NAME OF	Family Name	First Given Name	Second Given Name
	nventor/assignor	KIM	Choong-Yeal	
•				
	SIGNATURE	KIM Choung Tecl	DATE	2016.02.03

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

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SECOND INVENTOR/ASSIGNOR	PARK	Myung-Beam .	
CICALATIAN	Myung-Beom	lak DATE,	QQ2/2016
SIGNATURE	0		16.2.3
CECAS NUMBER OF	Family No.	First Given Name	Second Given Name
LEGAL NAME OF THIRD	Family Name		Score diversity
INVENTOR/ASSIGNOR	KO	Han-Gyul	
			- 18
SIGNATURE	Mrs -	DATE	16,02,04
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FOURTH INVENTOR/ASSIGNOR	ОН	Hwi-Hyeon	* * *
SIGNATURE	오퀴틴	DATE	16,02.04
			8 38
4			

## SAMSUNG ELECTRONICS CO., LTD.

LEGAL NAME OF FIFTH	Family Name	First Given Name	Second Given Name							
INVENTOR/ASSIGNOR	, JIN	Hye-Young								
SIGNATURE	Shurre	DATE	20/6, ⊥. /b.							

SEC Ref No. IH-201504-005-1-US0 Attorney Ref No. 253/1095\_00

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**RECORDED: 03/02/2016**