# 504621920 11/01/2017

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

Stylesheet Version v1.2

EPAS ID: PAT4668638

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
HYUN KWAN YU	10/11/2017
HYO JIN KIM	10/11/2017
RYONG HA	10/11/2017

#### **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:	15800483

#### **CORRESPONDENCE DATA**

**Fax Number:** (703)207-0003

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

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

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Correspondent Name: LEE & MORSE, P.C.

**Address Line 1:** 3141 FAIRVIEW PARK DRIVE

Address Line 2: SUITE 500

Address Line 4: FALLS CHURCH, VIRGINIA 22042

ATTORNEY DOCKET NUMBER:	275/1103_00
NAME OF SUBMITTER:	EUGENE M. LEE
SIGNATURE:	/Eugene M. Lee/
DATE SIGNED:	11/01/2017
	This document serves as an Oath/Declaration (37 CFR 1.63).

**Total Attachments: 4** 

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PATENT 504621920 REEL: 044005 FRAME: 0263

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PATENT REEL: 044005 FRAME: 0264

# 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:

Title:	SEMICONDUCTOR DEVICE		
	ch Assignor is about to make or has made	United States or Inter	national application for
WHERE	AS, as a below named inventor(s), I/(we)	hereby declare that:	
Section	I. Declaration		
	claration is directed to:  The attached U.S. non-provisiona  U.S. non-provisional patent applic	ation number	filed on
	PCT international patent application	on number	, filed on
The abo	ove-identified application was made or au	thorized to be made b	y me (us).
	elieve that I am (we are) the original inver on in the above-identified application.	ntor (original joint inve	intors) of a claimed
	ereby acknowledge that any willful false s ble under 18 U.S.C. 1001 by fine or impris		
<sup>1</sup> This fo	rm requires the use of an Application Data Sheet.		
SEC Ref	No. IE-201702-020-1-US0	Attorney Ref No.	275/1103_00
СОМВ	INED DECLARATION (37 CFR 1,63) FOR UTILIT	Y PATENT APPLICATION /	AND ASSIGNMENT FORM

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PATENT REEL: 044005 FRAME: 0265 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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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)

LEGAL NAME OF	Family Name		Second Given Name
INVENTOR/ASSIGNOR	W	Hyun Kwan	
<u></u>			]
SIGNATURE	Hundewen Yu	DATE	28/1,10,1/

CEC D. Cat.	XX 301909 000 x X000	A 3 3 3 4 5 5 6 6 6	58811465 GG
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LEGAL NAME OF SECOND INVENTOR/ASSIGNOR	Family Name	First Given Name	Second Given Name
	KIM	Hyo Jin	
			i

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
THIRD	НА	Ryong	
SIGNATURE	Ha Ryona	DATE	2017.10.11

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PATENT REEL: 044005 FRAME: 0268

**RECORDED: 11/01/2017**