11/11/2016 504092050

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4138718

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SANG CHEON PARK	06/07/2016
WON IL LEE	06/07/2016
CHAJEA JO	06/03/2016
TAEJE CHO	09/03/2016

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:	15290899

CORRESPONDENCE DATA

Fax Number: (703)757-7447

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.

Phone: 7037577880

Email: pto@muirpatentlaw.com **Correspondent Name:** MUIR PATENT LAW, PLLC

Address Line 1: P.O. BOX 1213

Address Line 4: GREAT FALLS, VIRGINIA 22066

ATTORNEY DOCKET NUMBER:	SAM-54243
NAME OF SUBMITTER:	ALYSA N. YOUNGSON
SIGNATURE:	/Alysa N. Youngson/
DATE SIGNED:	11/11/2016

Total Attachments: 4

source=IE-250975-US Executed Doc#page1.tif source=IE-250975-US Executed Doc#page2.tif source=IE-250975-US Executed Doc#page3.tif

> **PATENT** REEL: 040284 FRAME: 0841 504092050

source=IE-250975-US Executed Doc#page4.tif

PATENT REEL: 040284 FRAME: 0842

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.

Title:	SEMICONDUCTOR DEVICE	
for which As for patent.	ssignor is <mark>about to make or ha</mark> s made United States or Inte	rnational application
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, o	or.
	U.S. non-provisional patent application number	, filed
	onor	
	PCT international patent application number	, filed on
The above-io	dentified application was made or authorized to be made l	by me (us).
position of the first of the odd of the	ve that I am (we are) the original inventor (original joint in the above-identified application.	nventors) of a claime
a south the discount of the	by acknowledge that any willful false statement made under 18 U.S.C. § 1001 by fine or imprisonment of not mo	
	by state that I (we) have reviewed and understand the opplication, including the claims.	contents of the above
a karing ang mga ang mga mga karing ka	owledge that I (we) am (are) aware of the duty to disclose patentability as defined in 37 C.F.R. § 1.56.	e information which i
¹ This form re	equires the use of an Application Data Sheet.	

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 U.S.C. § 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 Assigner 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, 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

SEC Ref No.	IE-201508-030-1	-USO	Attorney Ref No.	SAM-54243	

similar right to Assignee.

The undersigned hereby grant(s) the law firm of Muir Patent Law, PLLC 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 INVENTOR/ASSIGNOR	PARK	Sang Cheon	
SIGNATURE	San Cheen, Park	DATE	June, 7th, roll,
	~ 14038		

LEGAL NAME OF SECOND	Family Name	First Given Name	Second Given Name	
INVENTOR/ASSIGNOR	LEE TO SEE	Won II		
SIGNATURE	Wouth, Lee	DATE	June, 144, 2016	

SEC Ref No.	IF-201508-030-1-I	U S0 Atto	rnev Ref No.	SAM-54243	
					

SAMSUNG ELECTRONICS CO., LTD.

LEGAL NAME OF THIRD	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	JO	Chajea	
	4		
	42)	
SIGNATURE	\cup	DATE	663

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FOURTH INVENTOR/ASSIGNOR	СНО	Taeje	
L.	J		<u> </u>
			100
SIGNATURE *	H012/16	DATE	(6)

Attorney Ref No. SAM-54243 SEC Ref No 18-201508-030-1-US0