PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2869454

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SANG-JINE PARK	04/15/2014
BO-UN YOON	04/15/2014
YOUNG-SANG YOUN	04/15/2014
JEONG-NAM HAN	04/15/2014
KEE-SANG KWON	04/15/2014
DOO-SUNG YUN	04/15/2014
BYUNG-KWON CHO	04/15/2014
JI-HOON CHA	04/15/2014

RECEIVING PARTY DATA

Name:	SAMSUNG ELECTRONICS CO., LTD.
Street Address:	129, SAMSUNG-RO, YEONGTONG-GU
City:	SUWON-SI, GYEONGGI-DO
State/Country:	REPUBLIC OF KOREA
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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14286108

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	2677-000270-US
NAME OF SUBMITTER:	JOHN A. CASTELLANO
SIGNATURE:	/John A. Castellano Reg. No, 35,094/
DATE SIGNED:	05/23/2014
	PAICNI

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This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 6

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

e invention and as the declaration (37 CFR 1.63) for a Utility or Design Applicate HEREAS, the undersigned, hereinafter referred to collectively as Assignor, has tie: SEMICONDUCTOR DEVICE AND METHOD OF FABRICATING THE SAME or which Assignor is about to make or has made United States or International at patent. HEREAS, as a below named inventor(s), I/(we) hereby declare that: ction I. Declaration is declaration is directed to: The attached U.S. non-provisional patent application, or	Invented:
tie: SEMICONDUCTOR DEVICE AND METHOD OF FABRICATING THE SAME r which Assignor is about to make or has made United States or International a r patent. HEREAS, as a below named inventor(s), I/(we) hereby declare that: ction I. Declaration its declaration is directed to:	der a standadada a digililikasi
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The attached U.S. non-provisional patent application, or	
U.S. non-provisional patent application number, or, or	filed
PCT international patent application number	filed on
	1 -
e above-identified application was made or authorized to be made by me (us)).
we) believe that I am (we are] the original inventor (original joint inventors) of vention in the above-identified application.	a claimed
we) hereby acknowledge that any willful false statement made in this declarat inishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five oth.	tion is (5) years, or
This form requires the use of an Application Data Sheet.	
C Ref No. 1E-201211-048-1-US0 Attorney Ref No. 2677-00	0270-US
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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 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-201211-048-1-USD	Attorney Ref No.	2677-000270-US
COMBINED DEC	LARATION (37 CFR 163) FOR	UTILITY PATENT APPLICATION	AND ASSIGNMENT FORM
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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 Lettors 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 Harness, Dickey & Pierce, P.L.C. 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	PARK	Sang-line	
Andrew Stranger (Andrew Stranger)	Shift should be head of any problem.	***************************************	
: ·	Sing Jine Po	DATE DATE	2014/4/15
SIGNATURE	10	FF Bush	174/8

SEC Ref No.	 IE-201211-048-1-US0	 Attorney Ref No.	2677-000270-US

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM
Page 3 of 6

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LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SECOND NVENTOR/ASSIGNOR	YOON	Bo-Un	
SIGNATURE	By Uh You	$oldsymbol{\iota}$ DATE	15/04/201
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
THIRD NVENTOR/ASSIGNOR	YOUN	Young-Sang	
SIGNATURE	Youn You	ng Sang DATE	2014/4/17
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LEGAL NAME OF	Family Name	First Given Name	
LEGAL NAME OF FOURTH NVENTOR/ASSIGNOR	Family Name	First Given Name Jeong-Nam	

FIFTH	Family Name	First Given Name	Second Given Name
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SIGNATURE	(end)	DATE	14/04/15
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INVENTOR/ASSIGNOR	YUN	Doo-Sung	
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
LEGAL NAME OF SEVENTH NVENTOR/ASSIGNOR	Family Name CHO	First Given Name Byung-Kwon	Second Given Name
SEVENTH	********************************		Second Given Name
HTMBVBZ ROMBIEZA\ROTMBVM	7dolts.	Byung-Kwon OATE	14/04/19.

SAMSUNG ELECTRONICS CO., LTD.

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
eighth Inventor/assignor	CHA	Ji-Hoon	-
	<u></u>		
	Jihr	DATE	14,04,14
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	Page 6		√19471397525621

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RECORDED: 05/23/2014