Atty. Docket No.: 8947-000520/US/DVA Page 1 of 1

RECORDATION FORM COVER SHEET			
To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.			
1. Name of conveying party(ies):	2. Name and address of receiving party(ies)		
Hoonjoo NA	Name: SAMSUNG ELECTRONICS CO., LTD.		
Sangjin HYUN	International Address:		
Yugyun SHIN	100 Communication Vocameters of		
Hongbae PARK	129, Samsung-ro, Yeongtong-gu City: Suwon-si, Gyeonggi-do		
Sughun HONG	Country: Republic of Korea		
Hye-Lan LEE	Postal Code: 443-742		
Hyung-seok HONG	Additional name(s) & address(es) attached? 🗌 YES 🔀 NO		
Additional name(s) of conveying party(ies) attached? YES NO			
3. Nature of conveyance:			
⊠ Assignment ☐ Merger			
☐ Security Agreement ☐ Change of Name			
Other:			
Execution Date:			
4. Application number(s) or patent number(s):	plication, the execution data of the application is:		
If this document is being filed together with a new ap	plication, the execution date of the application is.		
A. Patent Application No(s).	B. Patent No.(s).		
13/633,663			
Additional numbers atta			
Name and address of party to whom correspondence concerning document should be mailed:	6. Total No. of applications/patents involved: One (1)		
Name: HARNESS, DICKEY & PIERCE, P.L.C.	7. Total fee (37 C.F.R. § 3.41): \$40.00		
Street Address: P.O. BOX 8910	Enclosed		
City: RESTON State: VA ZIP: 20195	Authorized to be charged to deposit account B. Deposit account number: 08-0750		
Country: USA			
	(Attach triplicate copy of this page if paying by deposit account)		
	THIS SPACE		
9. Statement and signature.			
To the best of my knowledge and belief, the fo attached copy is a true copy of the original document.	regoing information is true and correct and any		
Gary D. Yacura/35,416 Name of Person Signing/Reg. No.	November 8, 2012 Date		
Total number of pages including cover sh	neet, attachments, and document: Six (6)		

GDY/EGH/MAV:ljs

PATENT REEL: 029300 FRAME: 0579 From: Harness Dickey 703-668-8200 To: 95712730140 Page: 3/7

SAMSUNG ELECTRONICS CO., LTD.

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: SEMICONDUCTOR DEVICE AND METHOD OF FABRICATING THE SAME Title: 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: The attached U.S. non-provisional patent application, or 冈 U.S. non-provisional patent application number 13/633,663, filed on October 2, 2012, 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-200907-034-1-US1 Attorney Ref No. 8947-000520/US/DVA COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM

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PATENT REEL: 029300 FRAME: 0580

Date: 11/8/2012 1:47:25 PM

From: Harness Dickey 703-668-8200 To: 95712730140 Page: 4/7 Date: 11/8/2012 1:47:25 PM

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-

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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 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 Harness, Dickey and 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 INVENTOR/ASSIGNOR	NA	Hoonjoo		
SIGNATURE _	Hoon Joo Na	DATE —	2012/10/19	

SEC Ref No.	IE-200907-034-1-US1	Attorney Ref No.	8947-000520/US/DVA

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM
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SAMSUNG ELECTRONICS CO., LTD.

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SECOND INVENTOR/ASSIGNOR	HYUN	Sangjin	
SIGNATURE _	Hyun, Engin	DATE	10/22/2012

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
THIRD INVENTOR/ASSIGNOR	SHIN	Yugyun	
SIGNATURE	Shim. Ta Gy	<u>M</u> 4	10/22/20/2

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FOURTH INVENTOR/ASSIGNOR	PARK	Hongbae	alle. A soldere tanner annual reconstruction of the Research
			The second secon
,	Park, Hoppie	DATE	10/22/2012

SEC Ref No. IE-200907-034-1-US1 Attorney Ref No. 8947-000520/US/DVA

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LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FIFTH INVENTOR/ASSIGNOR	HONG	Sughun	
		-	
SIGNATURE	Houg Syshu	DATE	10/22/2012

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SIXTH INVENTOR/ASSIGNOR	FEE	Hye-Lan	
	LEE Hye-Lan	DATE	10/22/2012
SIGNATURE	Lotypean		

LEGAL NAME OF	Fan	nily Name	First Given Name	Second Given Name
SEVENTH INVENTOR/ASSIGNOR		HONG	Hyung-seok	
SIGNATURE	Hong	Hyung-se	a4 DATE	(0/22/20/2

1593454.1

SEC Ref No. <u>IE-200907-034-1-US1</u> Attorney Ref No. <u>8947-000520/US/DVA</u>

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

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