Form <b>PTO-1595</b> (Rev. 6-12) OMB No. 0651-0027 (exp. 04/30/2015)	U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office
RECORDATION FORI	
PATENTS	ONLY
To the Director of the U.S. Patent and Trademark Office: Pleas	se record the attached documents or the new address(es) below.
Name of conveying party(ies):	2. Name and address of receiving party(ies)
Jae-ho LEE (02/19/2013), Seong-jun PARK (02/19/2013), Kyung-eun BYUN (02/19/2013),	Name: Samsung Electronics Co., Ltd.
David SEO (02/19/2013),	Internal Address:
Additional name(s) of conveying party(ies) attached? X Yes No	Street Address:
3. Nature of conveyance/Execution Date(s):	
Execution Date(s): in parentheses after inventor name	129, Samsung-ro, Yeongtong-gu
X Assignment Merger Change of Name	
Security Agreement Joint Research Agreement	City: Suwon-Sì, Gyeonggi-Do
Government Interest Assignment	State:
Executive Order 9424, Confirmatory License	Country: Republic of Korea Zip: 443-742
Other	Additional name(s) & address(es) X Yes No attached?
Application or patent number(s):  A. Patent Application No.(s)  13/772,693  Additional numbers attached?	ument serves as an Oath/Declaration (37 CFR 1.63).  B. Patent No.(s)  Yes X No
5. Name and address to whom correspondence	6. Total number of applications and patents involved:
concerning document should be mailed:  Name: John A. Castellano	paterits involved:
HARNESS, DICKEY & PIERCE, P.L.C.	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00
Internal Address: Atty. Dkt.: 2557SI-001899/US	
Street Address: P.O. Box 8910	X Authorized to be charged to deposit account
	Enclosed
	None required (government interest not affecting title)
City: Reston /	8. Payment Information
State: VA Zip: 20195	o. r ayment intolliauon
Phone Number: (703) 668-8000	
Fax Number: (703) 668-8200	Deposit Account Number 08-0750
Email Address: dcmailroom@hdp.com	Authorized User Name John A. Castellano
9. Signature:	February 21, 2013
John A. Castellano - 35,094  Name of Person Signing	Total number of pages including cover sheet, attachments, and documents:
	et) should be faxed to (571) 273-0140, or mailed to: of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450
No. 3	

JAC/ic

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		N FORM COVER SH (supplemental shee		
Additional Conveyir	ig Party(ies)/Exe	cution Date(s) (1	. Continued):	
Hyung-cheol SHIN (02/ CHUNG (02/19/2013), a			lyun-jae SONG (02/1	19/2013), Hyun-jong
Additional Assignee	s (2. Continued)	,		*
Assignee Name: Seoul N	lational University R	&DB Foundation		
Street Address: 1 Gwana	ak-ro,			
City: Gwanak-gu, Seot	ul State;	Country:	Republic of Korea	Zip:
		***************************************	Account of the Accoun	Management of the Control of the Con
Internal Address: Street Address:				
City:	State:	Country:		Zip:
Assignee Name:				
Internal Address: Street Address:				
City:	State:	Country:		Zip:
Additional Application	ons and/or Pater	nts (4. Continued)	):	
Additional Patent Application 4A. Continued:	Numbers	Additional 4B. Contin	Patent Numbers ued:	
	Additional numbe	ors attached?	Yes No	

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Docket No.: 2557SI-001899/US

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SAMSUNG ELECTRONICS CO., LTD.

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

The und	lersign	ed acknowledge that this docu	ment is being used both	as an assignment of
the inve	ntion	and as the declaration (37 CFR	1.63) for a Utility or Des	sign Application.
WHERE	AS, the	undersigned inventors have in	vented:	
Title:	FIELD	EFFECT TRANSISTOR USING GE	RAPHENE	
for whic		ntors are about to make or has patent.	made United States or	International
WHERE	AS, as a	a below named inventor(s), I/(v	ve) hereby declare that	:
Section	l. Dec	laration		
This dec	laratio	n is directed to:	•	
	$\boxtimes$	The attached U.S. non-provision	onal patent application,	, or
		U.S. non-provisional patent ap on		, filed
		PCT international patent applic	ation number	, filed on
The abo	ve-ide	ntified application was made or	authorized to be made	e by me (us).
		hat I am (we are) the original in e above-identifled application.	nventor (original joint ir	oventors) of a claimed
		icknowledge that any willful fal der 18 U.S.C. 1001 by fine or im		
¹ This for	m requi	res the use of an Application Data Sh	eet.	
SEC Ref N	Vo	RE-201204-012-1-US0	Attorney Ref No.	2557SI-001899/US
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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, collectively referred to in Section II as Assignors in this section, 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,

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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 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.

# Inventor(s)/Assignor(s) Signature(s) for Section II.

LEGAL NAME OF FIRST	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	LEE	Jae-ho	
SIGNATURE _	Lijaho	DATE —	February 19, 2013

SEC Ref No.	RE-201204-012-1-US0	Attorney Ref No.	2557SI-001899/US

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page 3 of 7

# SAMSUNG ELECTRONICS CO., LTD.

LEGAL NAME OF SECOND	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	PARK	Seong-jun	
SIGNATURE	L (le	DATE	February 19, 2013

LEGAL NAME OF THIRD	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	BYUN	Kyung-eun	
and the state of t	Treatment on the state of the s	And the second s	The state of the s
	11	DATE	February 19, 2013

LEGAL NAME OF FOURTH	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	SEO	David	and the transfer of the transf
SIGNATURE	1.7	DATE	February 19, 2013

SEC Ref No.	RE-201204-012-1-US0	Attorney Ref No.	2557SI-001899/US

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page 4 of 7

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## SAMSUNG ELECTRONICS CO., LTD.

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	SONG	Hyun-jae	
SIGNATURE	A).	DATE	February 19, 2013
			Vision to the Control of the Control

LEGAL NAME OF SIXTH	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	CHUNG	Hyun-jong	
	1 //		
	~ 1///		

LEGAL NAME OF SEVENTH	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	HEO	Jin-seong	A Manual
		DATE	February 19, 2013

SEC Ref No.	RE-201204-012-1-US0	Attorney Ref No.	2557SI-001899/US

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SAMSUNG ELECTRONICS CO., LTD.

## Section III. Assignment

In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, collectively referred to in Section II as Assignors in this section, hereby sell(s) and assign(s) to

#### Seoul National University R&DB Foundation

having an address at **1 Gwanak-ro**, **Gwanak-gu**, **Seoul**, **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, 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;

	ill be entered into which would		
	TY 404404 649 4 7700		
SEC Ref No.	RE-201204-012-1-US0	Attorney Ref No.	2557ST_001899/TIG

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SAMSUNG ELECTRONICS CO., LTD.

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 & 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.

Inventor(s)/Assignor(s) Signature(s) for Section III.

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FIRST INVENTOR/ASSIGNOR	SHIN	Hyung-cheol	
SIGNATURE	Hyngold Sh	DATE	February 19, 2013

LEGAL NAME OF SECOND	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	LEE	Jae-hong	
SIGNATURE _	JAEHONG LEE	DATE	February 19, 2013

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SEC Ref No. RE-201204-012-1-US0 Attorney Ref No. 2557SI-001899/US

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