PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3493357

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JAE-YUN LEE	08/19/2015
WOO-JUNG SUN	08/19/2015
KWANG-JIN LEE	08/19/2015
DONG-HOON JEONG	08/19/2015
BEAK-HYUNG CHO	08/19/2015

RECEIVING PARTY DATA

Name:	SAMSUNG ELECTRONICS CO., LTD.
Street Address:	129, SAMSUNG-RO, YEONGTONG-GU
Internal Address:	GYEONGGI-DO
City:	SUWON-SI
State/Country:	KOREA, REPUBLIC OF
Postal Code:	443-742

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14832229

CORRESPONDENCE DATA

Fax Number: (919)854-1401

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MYERS BIGEL SIBLEY & SAJOVEC, P.A. **Correspondent Name:**

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Address Line 2: SUITE 600

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ATTORNEY DOCKET NUMBER:	5649-4138
NAME OF SUBMITTER:	GAYLE ENDRES
SIGNATURE:	/gee/
DATE SIGNED:	08/21/2015
	This document serves as an Oath/Declaration (37 CFR 1.63).

PAIENI REEL: 036391 FRAME: 0430

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PATENT REEL: 036391 FRAME: 0431

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.

WHER	EAS, E	ne undersigned, hereinafter ref	erred to collectively as A	ssignor, has invented:
Title:	MET	VOLATILE MEMORY DEVICE W	/ITH REDUCED COUPLING	3 NOISE AND DRIVING
		signor is about to make or has r	nade United States or Inf	ernational application
for pat	ent.			
WHERE	EAS, a	a below named inventor(s), 1/	(we) hereby declare that	:
Section	n I. De	claration		
This de	clarat	on is directed to:		
	\boxtimes	The attached U.S. non-provis	ional patent application,	or
		U.S. non-provisional patent as	oplication number	filed
		PCT International patent appli	ication number	filed on
The abo	ove-ide	entified application was made o	er authorized to be made	by me (us).
l (we) bo inventio	elieve on in ti	that I am (we are) the original in a specification.	inventor (original joint in	ventors) of a claimed
l (we) he punishal both.	ereby ble un	acknowledge that any willful fa der 18 U.S.C. 1001 by fine or in	lse statement made in th aprisonment of not more	is declaration is than five (5) years, or
¹ This for	m regu	ires the use of an Application Data Sh	eet.	
SEC Ref N	Vo.	ID-201404-033-1-US0	Attorney Ref No.	5649-4138 SIP140109US

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM 2001051439948610

> **PATENT**

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,

SEC Ref No.	ID-201404-033-1-US0	Attorney Ref No.	5649-4138
			SIP140109US

PATENT REEL: 036391 FRAME: 0433 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 Myers Bigel Sibley & Sajovec, P.A. 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 FIRST	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	LEE	Jae-Yun	
SIGNATURE	Jacyun Lee	DATE	015.08.19

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SEC Ref No.	ID-201404-033-1-U50	Attorney Ref No.	5649-4138
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LEGAL NAME OF SECOND	Family Name	First Given Name	Second Given Nam
INVENTOR/ASSIGNOR	SUN	Woo-Jung	
SIGNATURE	MEZZ	DATE	2015, 8.19.
LEGAL NAME OF	Family Name	First Given Name	
THIRD			Second Given Name
INVENTOR/ASSIGNOR	LEE	Kwang-Jin	
SIGNATURE	이 와지	DATE	20/5.8.19
			20/5.8.19
SIGNATURE LEGAL NAME OF FOURTH	O/ 3-Z/ Family Name	DATE First Given Name	20/5, 8./9 Second Given Name
LEGAL NAME OF			

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

Attorney Ref No.

ID-201404-033-1-US0

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SEC Ref No.

SAMSUNG ELECTRONICS CO., LTD.

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	СНО	Beak-Hyung	
			L
SIGNATURE	立的物	DATE	2015, 8,19
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SEC Ref No. ID-201404-033-1-USO Attorney Ref No. 5649-4138
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RECORDED: 08/21/2015