504306553 04/05/2017

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DOO-SEOK YOON	12/20/2016
MIN-SU KIM	12/20/2016
CHUNG-HEE KIM	12/20/2016
DAE-SEONG LEE	12/20/2016
HYUN LEE	01/19/2017
MATTHEW BERZINS	01/13/2017
JAMES LIM	01/13/2017

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:	15479310

CORRESPONDENCE DATA

Fax Number: (571)283-0740

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.

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Email: aloomis@volentine.com **Correspondent Name: VOLENTINE & WHITT, PLLC**

11951 FREEDOM DRIVE, SUITE 1300 Address Line 1:

Address Line 4: RESTON, VIRGINIA 20190

ATTORNEY DOCKET NUMBER:	SEC.4032
NAME OF SUBMITTER:	ADAM C. VOLENTINE
SIGNATURE:	/ADAM C. VOLENTINE/
DATE SIGNED:	04/05/2017

PATENT REEL: 041852 FRAME: 0684 504306553

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

Total Attachments: 5

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PATENT REEL: 041852 FRAME: 0685

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:

Title:	MUI	TI-BIT FLIP-FLOPS		
for wh		signor is about to make or has r	nade United States or In	ternational application
WHERI	EAS, as	a below named inventor(s), I/(we) hereby declare that	
		claration on is directed to:		
•		The attached U.S. non-provis	ional patent application,	or
		U.S. non-provisional patent ap	oplication number	, filed
		PCT international patent appli	cation number	, filed on
The abo	ove-ide	entified application was made o	r authorized to be made	by me (üs).
(we) b nventic	elieve on in ti	that I am (we are) the original in a second contraction.	nventor (original joint in	ventors) of a claimed
(we) hounisha	ereby ible un	acknowledge that any willful fa der 18 U.S.C. 1001 by fine or in	lse statement made in the open statement of not more	nis declaration is than five (5) years, or
This for	rm requ	ires the use of an Application Data Sh	eet.	
EC Ref I	No.	IB-201602-009-1-US0	Attorney Ref No.	SS-51568-US SEC.4032

RATENT REEL: 041852 FRAME: 0686 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 16677, 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.

IB-201602-009-1-US0

Attorney Ref No.

SS-51568-US

SEC.4032

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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 **VOLENTINE & WHITT, 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 FIRST	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	YOON	DOO-SEOK	

SEC Ref No. IB-201602-009-1-US0 Attorney Ref No. SS-51568-US SEC.4032

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LEGAL NAME OF SECOND	Family Name	First Given Name	Second Given Name	
NVENTOR/ASSIGNOR	KIIVI	MIN-SU		
			ŗ	1
SIGNATURE	Kim, Min	SU DATE	20/6/Dec.	201

LEGAL NAME OF THIRD	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	KIM	CHUNG-HEE	
	C 8 1		
SIGNATURE #	In Chumple	DATE	2016/hec/201
- بينيا	1	<i>(</i>	1000 1000 100

LEGAL NAME OF FOURTH	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	LEE	DAE-SEONG	
SIGNATURE	14	DATE	2016./2,20

SAMSUNG ELECTRONICS CO	1., LTU. (1.1.)		
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	LEE	HYUN	
SIGNATURE		DATE	1/19/2017
LEGAL NAME OF	Family Name	First Given Name	
SIXTH		LOST GIVEN MADIE	Second Given Name
NVENTOR/ASSIGNOR	BERZINS	MATTHEW	
SIGNATURE		DATE	1/13/5017
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SEVENTH NVENTOR/ASSIGNOR	uw	JAMES	
SIGNATURE		DATE	1/13/2017
EC Ref No. 113-2016	02-009-1-US0	Attorney Ref No.	SS-51568-DS SEC.4032

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