505990247 03/30/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6036956

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JUN-HAN CHOI	03/24/2020
TAE-HWANG KONG	03/16/2020
KWANG-HO KIM	03/16/2020
SANG-HO KIM	03/16/2020
SE-KI KIM	03/16/2020
JUN-HYEOK YANG	03/16/2020
SUNG-YONG LEE	03/18/2020
YONG-JIN LEE	03/16/2020

RECEIVING PARTY DATA

Name:	SAMSUNG ELECTRONICS CO., LTD.
Street Address:	129, SAMSUNG-RO, YEONGTONG-GU, GYEONGGI-DO,
City:	SUWON-SI
State/Country:	KOREA, REPUBLIC OF
Postal Code:	16677

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15868172

CORRESPONDENCE DATA

Fax Number: (202)293-7860

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: kcoates@sughrue.com, sughrue@sughrue.com

Correspondent Name: SUGHRUE MION, PLLC

Address Line 1: 2000 PENNSYLVANIA AVENUE, N.W.

Address Line 2: SUITE 900

Address Line 4: WASHINGTON, D.C. 20006

ATTORNEY DOCKET NUMBER:	Q233343
NAME OF SUBMITTER:	KENIONA COATES
SIGNATURE:	/KENIONA COATES/

505990247 PATENT REEL: 052255 FRAME: 0961

DATE SIGNED:	03/30/2020	
	This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 6

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PATENT REEL: 052255 FRAME: 0962

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, th	e undersigned, hereinafter refe	erred to collectively as Assig	gnor, has invented:	
Title: A SEI	MICONDUCTOR DEVICE FOR MON	ITORING A REVERSE VOLTAG	E	
for which Ass for patent.	iignor is about to make or has m	nade United States or Inter	national application	
WHEREAS, as	a below named inventor(s), I/(we) hereby declare that:		
Section I. De	claration			
This declarat	ion is directed to:			
	The attached U.S. non-provis	ional patent application, or	r	
	U.S. non-provisional patent ap January 11, 2018, or	oplication number 15/868	3 ,172, filed on	
	PCT international patent appl	ication number	, filed on	
The above-id	entified application was made o	or authorized to be made b	y me (us).	
	e that I am (we are) the original the above-identified application	. –	entors) of a claimed	
	acknowledge that any willful fander 18 U.S.C. 1001 by fine or in			
¹ This form req	uires the use of an Application Data S	heet.		
SEC Ref No. I	B-201610-020-1-US0	Attorney Ref No.	Q233343	

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page 1 of 6 **PATENT REEL: 052255 FRAME: 0963** 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-201610-020-1-US0	Attorney Ref No.	Q233343
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COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM

Page 2 of 6

PATENT

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 **Sughrue Mion**, **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.

SEC Ref No. IB-201610-020-1-US0 Attorney Ref No. **Q233343**

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Section IV. Inventor(s)/Assignor(s) Signature(s)

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FIRST	CHOI	jun-han	
NVENTOR/ASSIGNOR			*
SIGNATURĘ		DATE	2020.07.24
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SECOND	KONG	Tae-hwang	
INVENTOR/ASSIGNOR			
SIGNATURE	2-2-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3	DATE	2 000, 03-{{
LEGAL NAME OF	Family Name	First Given Name	Second Given Nam
THIRD INVENTOR/ASSIGNOR	KIM	Kwang-ho	
SIGNATURE	Kullingho	DATE 	2-02-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1

PATENT REEL: 052255 FRAME: 0966

Family Name	First Given Name	Second Given Name
KIM	Sang-ho	
144/2	DATE	2,020, 2, 31,
		XIM Sang-ho

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FIFTH INVENTOR/ASSIGNOR	KIM	Se-ki	
		<u></u>	<u></u>
		DATE	020 09 %
SIGNATURE	Caller Straight Margaret 3		(2) (44.5) (4.5) (5.5) (5.6)

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	YANG	Jun-hyeok	
SIGNATURE	din,	DATE	03/16/2-20

······			***************************************
SEC Ref No.	IB-201610-020-1-US0	Attorney Ref No.	Q233343

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM
Page 5 of 6

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PATENT REEL: 052255 FRAME: 0967

SAMSUNG ELECTRONICS CO.,	LTD
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LEGAL NAME OF SEVENTH	Family Name	First Given Name	Second Given Name
SEVENTH INVENTOR/ASSIGNOR	LEE	Sung-yong	
			*
***************************************		DATE	2019-07-18
SIGNATURE			
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
EIGHTH INVENTOR/ASSIGNOR	1.EE	Yong-jin	
	<u> </u>	DATE	7.330 ** 53
	N . Characterian		
SIGNATURE	44		2010.02.16
SIGNATURE			
		2 3 4 2 3 7 3 2 2 2 2 9 0 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	
		V () Al 21/15/22/20043	

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RECORDED: 03/30/2020