506818946 08/16/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6865767

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the FOURTH ASSIGNOR'S NAME previously recorded on Reel 054142 Frame 0100. Assignor(s) hereby confirms the FOURTH ASSIGNOR'S NAME SHOULD BE LEE, BYUNG-KI.
RESUBMIT DOCUMENT ID:	506646187

CONVEYING PARTY DATA

Name	Execution Date
BYOUNG GEUN KIM	09/25/2020
KEUNSAN PARK	09/25/2020
SANGYOON OH	09/25/2020
BYUNG-KI LEE	09/25/2020
YONGHWA LEE	09/25/2020
JOOYOUNG HWANG	09/25/2020

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:	17076619

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.

Phone: 5712830720

Email: aloomis@volentine.com

Correspondent Name: VOLENTINE, WHITT & FRANCOS, PLLC

Address Line 1: 300 E MAIN ST., SUITE 302

Address Line 4: CHARLOTTESVILLE, VIRGINIA 22902

ATTORNEY DOCKET NUMBER: SEC.4617

NAME OF SUBMITTER: ADAM C. VOLENTINE

PATENT REEL: 057196 FRAME: 0432

506818946

SIGNATURE:	/ADAM C. VOLENTINE/
DATE SIGNED:	08/16/2021
	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 7	
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PATENT REEL: 057196 FRAME: 0433

Electronic Patent Assignment System

Confirmation Receipt

Your assignment has been received by the USPTO. The coversheet of the assignment is displayed below:

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BYOUNG GEUN KIM	09/25/2020
KEUNSAN PARK	09/25/2020
SANGYOON OH	09/25/2020
BYUNG-K LEE	09/25/2020
YONGHWA LEE	09/25/2020
JOOYOUNG HWANG	09/25/2020

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: 17076619 CORRESPONDENCE DATA Fax Number: (571)283-0740 Phone: 5712830720 **Email:** aloomis@volentine.com 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. **Correspondent Name:** VOLENTINE, WHITT & FRANCOS, PLLC 300 E MAIN ST., SUITE 302 Address Line 1: Address Line 4: CHARLOTTESVILLE, VIRGINIA 22902 ATTORNEY DOCKET SEC.4617 **NUMBER:** NAME OF SUBMITTER: ADAM C. VOLENTINE Signature: /ADAM C. VOLENTINE/ Date: 10/22/2020 This document serves as an Oath/Declaration (37 CFR 1.63). **Total Attachments: 5** source=Declaration_Assignment_Form#page1.tif source=Declaration_Assignment_Form#page2.tif source=Declaration_Assignment_Form#page3.tif source=Declaration_Assignment_Form#page4.tif source=Declaration_Assignment_Form#page5.tif

RECEIPT INFORMATION

EPAS ID: PAT6363871 **Receipt Date:** 10/22/2020

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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: STORAGE DEVICE AND OPERATION METHOD THEREOF 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: X The attached U.S. non-provisional patent application, or U.S. non-provisional patent application number ______, filed 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. ID-291408-US SEC Ref No. TD-201908-066-1-US0 Attorney Ref No.

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM
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SEC.4617

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.	ID-201908-066-1-US0	Attorney Ref No.	ID-291408-US SEC.4617

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

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PATENT

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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 & FRANCOS, 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)

Family Name	First Given Name	Second Given Name
CONTRINS	BYOUNG GEUN	
John	DATE	3000 Y-35
	/ . KIM (2.5) (3.5)	SYOUNG GEUN

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COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM
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Solution 世界報酬 (明显到) 设置于/04008564/2020-09-25 0859

	Family Name	First Given Name	Second Given Name
SECOND INVENTOR/ASSIGNOR	PARK	KEUNSAN	
		DATE	2023 3775
SIGNATURE			
LEGAL NAME OF THIRD	Family Name	First Given Name	Second Given Name
NVENTOR/ASSIGNOR	ОН	SANGYOON	
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FOURTH	Family Name	First Given Name	Second Given Name
	Family Name LEE	First Given Name BYUNG-Ki	Second Given Name
FOURTH	***************************************		Second Given Name
FOURTH N/ENTOR/ASSIGNOR	***************************************		Second Given Name
FOURTH NVENTOR/ASSIGNOR	LEF	BYUNG-KI	
FOURTH N/ENTOR/ASSIGNOR	LEF	BYUNG-KI	

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM
Page 4 of 5
Solution 선행계설됨(맥도리)/설명군/04008564/2020-09-25 08:58

PATENT REEL: 057196 FRAME: 0439

LEGAL NAME OF FIFTH INVENTOR/ASSIGNOR	Family Name	First Given Name	Second Given Name
	LEE CO	YONGHWA	
SIGNATURE	4 8 %	DATE	2000, 9, 35

LEGAL NAME OF SIXTH INVENTOR/ASSIGNOR	Family Name	First Given Name	Second Given Name
	HWANG	JOOYOUNG	
		1	
		DATE	
	Laryey 14		2000. 9. 15°

SEC Ref No. ID-201988-066-1-US0 Attorney Ref No. ID-291408-US SEC-4617

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page 5 of 5 Solution 선행계품별(메요리)/경험근/04008564/2020-09-25 0859

> PATENT REEL: 057196 FRAME: 0440

RECORDED: 05/05/2021