PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6597704

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YANG SEOK KI	12/01/2020
SUNGWOOK RYU	11/23/2020
SEONTAEK KIM	11/30/2020
CHANGHO CHOI	11/25/2020
EHSAN NAJAFABADI	11/30/2020

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:	17109053

CORRESPONDENCE DATA

Fax Number: (626)577-8800

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: 626-795-9900 **Email:** pto@lrrc.com

Correspondent Name: LEWIS ROCA ROTHGERBER CHRISTIE LLP

Address Line 1: PO BOX 29001

Address Line 4: GLENDALE, CALIFORNIA 91209

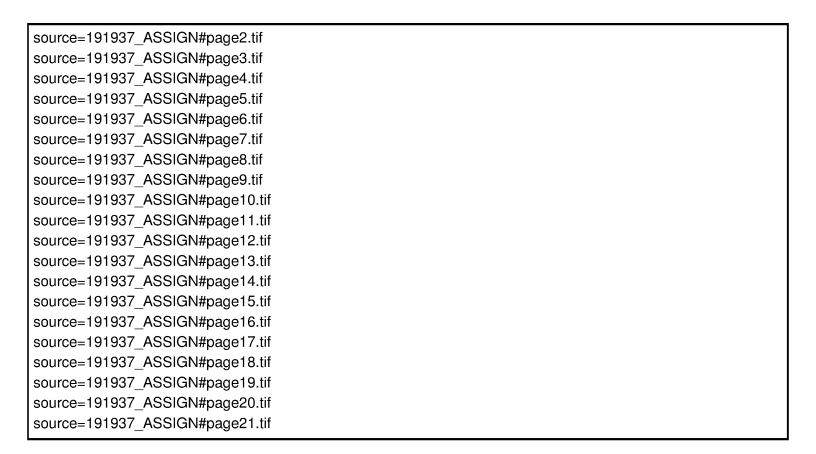
ATTORNEY DOCKET NUMBER:	191937/MJC/FMO
NAME OF SUBMITTER:	FRANCES M. O'BRIEN
SIGNATURE:	/Frances M. O'Brien/
DATE SIGNED:	03/12/2021

Total Attachments: 21

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PATENT REEL: 055576 FRAME: 0810

506550926



COMBINED DECLARATION (37 CFR §1.63) FOR UTILITY OR DESIGN PATENT APPLICATION AND ASSIGNMENT FORM¹

SEC Ref No.	WB-202005-030-1 Attorney Ref No. 191937
This form requi	res the use of an Application Data Sheet.
	nat I am (we are) the original inventor (original joint inventors) of a claimed e above-identified application.
The above-ider	tified application was made or authorized to be made by me (us).
	PCT international patent application number, filed on,
	J.S. non-provisional patent application number <u>17/109,053</u> , filed on <u>December 1, 2020</u> , or
	The attached U.S. non-provisional patent application, or
This declaration	n is directed to:
Section I. Decl	aration
WHEREAS, as a	below named inventor(s), I/(we) hereby declare that:
patent.	
for which Assig	nor is about to make or has made United States or International application for
Title: FAULT	RESILIENT STORAGE DEVICE
WHEREAS, the	undersigned, hereinafter referred to collectively as Assignor, has invented:
invention and a	s the declaration (37 CFR 1.63) for a Utility or Design Application.
The undersigne	d acknowledges that this document is being used both as an assignment of the

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.

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

112863342.1

In consideration of and according to the provisions of the Assignor's employment agreement(s), 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 or design 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 or designs as described in the aforesaid application, to the aforesaid application itself, and to provisional application(s) 63/051,158 to which the aforesaid application claims priority, and to all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly

SEC Ref No. <u>WB-202005-030-1</u> Attorney Ref No. <u>191937</u>
COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM
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from the aforesaid application or provisional, 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, re-examination, 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 LEWIS ROCA ROTHGERBER CHRISTIE LLP the power to insert on this Declaration and Assignment any further identification which may be

SEC Ref No. <u>WB-202005-030-1</u> Attorney Ref No. <u>191937</u>
COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM
Page 3 of 5

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	КІ	Yang Seok	
	/Yang Seok Ki/		
SIGNATURE		DATE	12/1/2020
LEGAL NAME OF SECOND	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	RYU	Sungwook	
SIGNATURE		DATE	
LEGAL NAME OF THIRD	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	KIM	Seontaek	

SEC Ref No	WB-202005-030-1	Attorney Ref No	191937
COMBINED	DECLARATION (37 CFR 1.63) FC	OR UTILITY PATENT APPLICATION	AND ASSIGNMENT FORM
		Page 4 of 5	

SIGNATURE		DATE	
LEGAL NAME OF FOURTH	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	СНОІ	Changho	
SIGNATURE		DATE	
	,		
LEGAL NAME OF FIFTH	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	NAJAFABADI	Ehsan	
SIGNATURE		DATE	

SEC Ref No.	WB-202005-030-1	Attornev Ref No.	191937
COMBINED	DECLARATION (37 CFR 1.63) FOR UTIL	,	N AND ASSIGNMENT FORM

Page 5 of 5

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

LEGAL NAME OF FIRST	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	KI .	Yang Seok	
SIGNATURE		DATE	
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SECOND INVENTOR/ASSIGNOR	RYU	Sungwook	
SIGNATURE	Sing	11/23/2020ATE	
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
THIRD INVENTOR/ASSIGNOR	KIM	Seontaek	
SIGNATURE		DATE	
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FOURTH INVENTOR/ASSIGNOR	СНОІ	Changho	
SIGNATURE		DATE	
SEC Ref No. WB-2	:02005-030-1	Attorney Ref No.	191937

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

COMBINED DECLARATION (37 CFR §1.63) FOR UTILITY OR DESIGN PATENT APPLICATION AND ASSIGNMENT FORM¹

The und	lersign	ed acknowledges that this document is being used both as an assignment of the
inventio	n and	as the declaration (37 CFR 1.63) for a Utility or Design Application.
WHERE	AS, the	e undersigned, hereinafter referred to collectively as Assignor, has invented:
Title:	FAUL	T RESILIENT STORAGE DEVICE
for whice	ch Assi	gnor is about to make or has made United States or International application for
WHERE	AS, as	a below named inventor(s), I/(we) hereby declare that:
Section	I. Dec	claration
This dec	laratio	on is directed to:
[The attached U.S. non-provisional patent application, or
	\boxtimes	U.S. non-provisional patent application number <u>17/109,053</u> , filed on <u>December 1, 2020</u> , or
[PCT international patent application number, filed on
The abo	ve-ide	entified application was made or authorized to be made by me (us).
		that I am (we are) the original inventor (original joint inventors) of a claimed ne above-identified application.
¹ This for	rm requ	uires the use of an Application Data Sheet.
SEC Ref I	No	WB-202005-030-1 Attorney Ref No. 191937

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.

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 and according to the provisions of the Assignor's employment agreement(s), 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 or design 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 or designs as described in the aforesaid application, to the aforesaid application itself, and to provisional application(s) 63/051,158 to which the aforesaid application claims priority, and to all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application or provisional, 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

SEC Ref No.	WB-202005-030-1	Attorney Ref No.	191937	
	ARATION (37 CFR 1.63) FOR L		I AND ASSIGNMENT F	ORM
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relating to any of the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights;

with eligible for

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, re-examination, 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 LEWIS ROCA ROTHGERBER CHRISTIE LLP 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.	WB-202008-030-1	Attorney Ref No.	191937
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COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM
Page 3 of 5

112863342.1

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
First Inventor/Assignor	KI	Yang Seok	
SIGNATURE		DATE	
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
second Inventor/assignor	RYU	Sungwook	
SIGNATURE		DATE	
LEGAL NAME OF	Family Name	First Given Name	Second Given Nam
THIRD INVENTOR/ASSIGNOR	KIM	Seontaek	
SIGNATURE	7h ks #	DATE	ll/so/soc
LEGAL NAME OF	Family Name	First Given Name	Second Given Nam
FOURTH INVENTOR/ASSIGNOR	сноі	Changho	
SIGNATURE		DATE	
	.	5	
SEC Ref No. W	B-202005-030-1	Attorney Ref No.	191937

Page 4 of 5

112863342.1

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FIFTH INVENTOR/ASSIGNOR	NAJAFABADI	Ehsan	
		in the state of th	
SIGNATURE		DATE	

SEC Ref No.	WB-202005-030-1	Attorney Ref No.	191937

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

112863342.3

COMBINED DECLARATION (37 CFR §1.63) FOR UTILITY OR DESIGN PATENT APPLICATION AND ASSIGNMENT FORM¹

SEC Ref No	WB-202005-030-1 Attorney Ref No. 191937
¹ This form requi	res the use of an Application Data Sheet.
• •	hat I am (we are) the original inventor (original joint inventors) of a claimed e above-identified application.
The above-ider	ntified application was made or authorized to be made by me (us).
	PCT international patent application number, filed on
	U.S. non-provisional patent application number <u>17/109,053</u> , filed on <u>December 1, 2020</u> , or
	The attached U.S. non-provisional patent application, or
This declaratio	n is directed to:
Section I. Decl	aration
WHEREAS, as a	below named inventor(s), I/(we) hereby declare that:
patent.	
for which Assig	nor is about to make or has made United States or International application for
Title: FAULT	RESILIENT STORAGE DEVICE
WHEREAS, the	undersigned, hereinafter referred to collectively as Assignor, has invented:
invention and a	as the declaration (37 CFR 1.63) for a Utility or Design Application.
The undersigne	ed acknowledges that this document is being used both as an assignment of the

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.

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 and according to the provisions of the Assignor's employment agreement(s), 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 or design 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 or designs as described in the aforesaid application, to the aforesaid application itself, and to provisional application(s) 63/051,158 to which the aforesaid application claims priority, and to all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application or provisional, 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

SEC Ref No.	WB-202005-030-1	Attorney Ref No.	191937
	V / III I O II O II O II		

Page 2 of 5 **PATENT**

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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, re-examination, 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 LEWIS ROCA ROTHGERBER CHRISTIE LLP 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.	WB-202005-030-1	Attorney Ref No.	191937

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM
Page 3 of 5
PATENT

REEL: 055576 FRAME: 0825

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

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FIRST INVENTOR/ASSIGNOR	KI	Yang Seok	
SIGNATURE		DATE	
LEGAL NAME OF SECOND INVENTOR/ASSIGNOR	Family Name RYU	First Given Name Sungwook	Second Given Name
SIGNATURE		DATE	
LEGAL NAME OF THIRD INVENTOR/ASSIGNOR	Family Name KIM	First Given Name Seontaek	Second Given Name
SIGNATURE		DATE	
LEGAL NAME OF FOURTH INVENTOR/ASSIGNOR	Family Name CHOI	First Given Name Changho	Second Given Name
SIGNATURE	/Changho Choi/	DATE	11/25/2020
SEC Ref No. WB-	202005-030-1	Attorney Ref No.	

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

Page 4 of 5

PATENT

REEL: 055576 FRAME: 0826

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FIFTH INVENTOR/ASSIGNOR	NAJAFABADI	Ehsan	
SIGNATURE		DATE	

SEC Ref No.	WB-202005-030-1	Attorney Ref No.	191937
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COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM

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PATENT

REEL: 055576 FRAME: 0827

COMBINED DECLARATION (37 CFR §1.63) FOR UTILITY OR DESIGN PATENT APPLICATION AND ASSIGNMENT FORM¹

SEC Ref No	WB-202005-030-1 Attorney Ref No. 191937
¹ This form requi	res the use of an Application Data Sheet.
• •	hat I am (we are) the original inventor (original joint inventors) of a claimed e above-identified application.
The above-ider	ntified application was made or authorized to be made by me (us).
	PCT international patent application number, filed on
	U.S. non-provisional patent application number <u>17/109,053</u> , filed on <u>December 1, 2020</u> , or
	The attached U.S. non-provisional patent application, or
This declaratio	n is directed to:
Section I. Decl	aration
WHEREAS, as a	below named inventor(s), I/(we) hereby declare that:
patent.	
for which Assig	nor is about to make or has made United States or International application for
Title: FAULT	RESILIENT STORAGE DEVICE
WHEREAS, the	undersigned, hereinafter referred to collectively as Assignor, has invented:
invention and a	as the declaration (37 CFR 1.63) for a Utility or Design Application.
The undersigne	ed acknowledges that this document is being used both as an assignment of the

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.

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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 or design 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 or designs as described in the aforesaid application, to the aforesaid application itself, and to provisional application(s) 63/051,158 to which the aforesaid application claims priority, and to all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application or provisional, 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

SEC Ref No.	WB-202005-030-1	Attorney Ref No.	191937

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, re-examination, 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.

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SEC Ref No.	WB-202005-030-1	Attorney Ref No.	191937

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

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FIRST INVENTOR/ASSIGNOR	KI	Yang Seok	
SIGNATURE		DATE	
LEGAL NAME OF SECOND	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	RYU	Sungwook	
SIGNATURE		DATE	
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
THIRD			Second Given Name
INVENTOR/ASSIGNOR	KIM	Seontaek	
SIGNATURE		DATE	
LEGAL NAME OF FOURTH	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	СНОІ	Changho	
SIGNATURE		DATE	
<u>'</u>			
SEC Ref No. WB-2	0700E 020 1	Attorney Ref No.	163627

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page **4** of **5 PATENT** 112863342.1 REEL: 055576 FRAME: 0831

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FIFTH INVENTOR/ASSIGNOR	NAJAFABADI	Ehsan	
SIGNATURE	/Ehsan Najafabadi/	DATE	11/30/2020

SEC Ref No.	WB-202005-030-1	Attorney Ref No.	191937
		,	

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

PATENT

RECORDED: 03/12/2021 REEL: 055576 FRAME: 0832