PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SUN-MI YOO	09/02/2022
YOUNG-SIK LEE	09/02/2022
JEONG-EUN KIM	09/02/2022
HYE JU KIM	09/08/2022
SO DAM HWANG	09/02/2022

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:	17937068

CORRESPONDENCE DATA

Fax Number: (919)854-1401

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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Correspondent Name: MYERS BIGEL P.A.

Address Line 1:4140 PARKLAKE AVE, SUITE 600Address Line 4:RALEIGH, NORTH CAROLINA 27612

ATTORNEY DOCKET NUMBER:	5649.5725
NAME OF SUBMITTER:	SARA E. WARREN
SIGNATURE:	/sew/
DATE SIGNED:	09/30/2022
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 4

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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:

Title:	MEMORY STORAGE DEVICE AND ELEC NONVOLATILE MEMORY	TRONIC DEVICE INCLU	DING A
for which	h Assignor is about to make or has made Unite	ed States or International a	pplication for patent.
WHEREA	S, as a below named inventor(s), I/(we) here	by declare that:	
Section I	l. Declaration		
This deci	laration is directed to:		
[The attached U.S. non-provisional pa	tent application, or	
	U.S. non-provisional patent applicatio	on number	, filed on
	PCT international patent application		, filed on
The abov	ve-identified application was made or author),
, ,	elieve that I am (we are) the original inventor pove-identified application.	(original joint inventors) o	f a claimed invention
	ereby acknowledge that any willful false sta 3 U.S.C. 1001 by fine or imprisonment of not i		
	state that I have reviewed and understand t g the claims.	he contents of the above i	dentified application,
	viedge that I am aware of the duty to disclosed in 37 CFR § 1.56.	e information which is ma	terial to patentability
			·
¹ This for	rm requires the use of an Application Data Sheet.		
SEC Ref	FNo. ID-202109-003-1-US0	Attorney Ref No.	5649.5725
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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, Republic of Korea (hereinafter designated as the Assignee), their 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, their 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, 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.	ID-202109-003-1-US0	Attorney Ref No.	5649.5725

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM
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The undersigned hereby grant(s) the law firm of Myers Bigel, 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	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	Y00	SUN-MI	
SIGNATURE	6 m		2021 9 2

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	LEE	YOUNG-SIK	
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SIGNATURE	Youngsle Lee	DATE	2012 9 2
er e e e e e e e e e e e e e e e e e e	5/W/2010 18/00191512		

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	KIM	JEONG-EUN	
SIGNATURE	KQ	DATE	2022. 9. 2

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LEGAL NAME OF FOURTH	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	KIM	HAE 10	
SIGNATURE	김하기주	DATE	22.9.8.

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	HWANG	SO DAM	
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SIGNATURE	황소당	=	32. 9. 2
SIGNATURE		=	

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