PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6610321

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DONGWOO KIM	01/28/2021
JINBUM KIM	01/28/2021
GYEOM KIM	02/08/2021
DOHEE KIM	02/23/2021
SEUNGHUN LEE	02/23/2021

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:	17206229

CORRESPONDENCE DATA

Fax Number: (703)207-0003

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: EUGENE M LEE

Address Line 1: LEE IP LAW, P.C.

Address Line 2: 3141 FAIRVIEW PARK DRIVE, SUITE 500

Address Line 4: FALLS CHURCH, VIRGINIA 22042

ATTORNEY DOCKET NUMBER:	285/1201_00
NAME OF SUBMITTER:	EUGENE M. LEE
SIGNATURE:	/Eugene M. Lee/
DATE SIGNED:	03/19/2021
	This document serves as an Oath/Declaration (37 CFR 1.63).

PATENT 506563542 REEL: 055645 FRAME: 0470

Total Attachments: 4 source=Assignment_285_1201_00#page1.tif source=Assignment_285_1201_00#page2.tif source=Assignment_285_1201_00#page3.tif

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PATENT REEL: 055645 FRAME: 0471

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:

The state of the distributed interested to bottom by as 1500 gas invented.
Title: SEMICONDUCTOR DEVICES
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 the attached U.S. non-provisional patent application, unless the following is marked:
U.S. non-provisional patent application number, filed on
PCT international patent application number, filed on factors are number, filed on factors are number, filed on
as amended by the Prefiminary Amendment 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.
I hereby state that I have reviewed and understand the contents of the above identified application, including the claims (as amended by any amendment referred to above).
I acknowledge that I am aware of the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56.
This form requires the use of an Application Data Sheet.
SEC Ref No. IE-202004-006-1-US0 Attorney Ref No. 285/1201_00

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

Foundry공정개발팀(반도체연)/김동우/07037469/2021-01-28 13:1Rage 1 of 4

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-do16677,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, 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

SEC Ref No.	1E-202004-006-1-US0	Attorney Ref No.	285/1201	00
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COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM

Foundry공정개발팀(반도체연)/김동우/07037469/2021-01-28 13:18age 2 of 4

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SAMSUNG ELECTRONICS CO., LTD.

or countries forcign 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 LEE IP LAW, P.C. 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
FIRST INVENTOR/ASSIGNOR	Kim .	Dongwoo	
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SIGNATURE 1	dgy Noo Kin	DATE	2024.01,28

LEGAL NAME OF SECOND	Family Name	First Given Name	Second Given Name
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SEC Ref No.	IE-202004-006-1-US0	Attorney Ref No.	285/1201 00

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
THIRDINVENTOR/ASSIGNOR	KIM	Gycom	
	,		
SIGNATURE	140_	DATE	2021 02, 000

LEGAL NAME OF FOURTHINVENTOR/ASSIGNOR	Family Name	First Given Name	Second Given Name
TO CHIMITELY DIVIDORNAL	KIM	Dohee	
		-	
SIGNATURE		DATE	2021, D. J. J. J. J. J.

Seunghun	
	<u> </u>
DATE	کی۔ د الرمد
	DATE

SEC Ref No.	IE-202004-006-1-US0	Attorney Ref No.	285/1201 00

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RECORDED: 03/19/2021

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