PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6786136

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
HYUNG JIN PARK	06/05/2021
JUNG WOOK KIM	06/05/2021
HYO JUN LEE	06/05/2021

RECEIVING PARTY DATA

Name: SK HYNIX INC.	
Street Address: 2091, GYEONGCHUNG-DAERO, BUBAL-EUB, ICHEON-SI	
City: GYEONGGI-DO	
State/Country: KOREA, REPUBLIC OF	
Postal Code:	17336

PROPERTY NUMBERS Total: 1

Property Type	Number		
Application Number:	17360847		

CORRESPONDENCE DATA

Fax Number: (571)327-5452

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: 5713275450

Email: ipntlaw@ipntlaw.com **Correspondent Name:** IP & T GROUP LLP Address Line 1: 8230 LEESBURG PIKE

Address Line 2: SUITE 650

Address Line 4: VIENNA, VIRGINIA 22182

ATTORNEY DOCKET NUMBER:	P21H0005/US
NAME OF SUBMITTER:	JEONGSOOK YI
SIGNATURE:	/Jeongsook YI/
DATE SIGNED:	06/28/2021
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

506739318

source=P21H0005US-Assignment#page1.tif source=P21H0005US-Assignment#page2.tif

> **PATENT REEL: 056700 FRAME: 0273**

source=P21H0005US-Assignment#page3.tif

PATENT REEL: 056700 FRAME: 0274

ASSIGNMENT OF AND DECLARATION (37 CFR 1.63) FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS HNERE Jin PARK	, here	inafter referred	to collectively	as the assignor a	and inventor, has	s invented a
certain improvement relating to						
SEMICONDUCTOR DEVICE						
[X] said application being attached [] said application having been fil, as Application Serial [] the specification of which was	ed in the Unite No filed under the	, and was an Patent Coope	iended on ration Treaty o	8.	(if appl	icable);
Serial No, the United	States of Ame	inca being des	ignated.			
AND WHEREAS SK hym Korea, hereinafter referred to as the said application, including any and part applications), and in and to said therefor, including any and all renev	assign ee or ap all divisions a l invention and	oplicant, is des nd continuation I improvement	irous of acquirns thereof (i.e. s ("invention")	ing the entire righ divisional, contin	it, title and inter uation, and con	est in and to tinuation-in-
NOW THIS WITNESSET consideration paid by said assigne assigns, sells and transfers to said a interest in and to said application, it any and all patents which may be g assignee, and said assignee's successall divisions and continuations the including any and all renewals, reis anywise arising from or appertaint including any and all renewals, reassignee's successors and assigns, it enjoyed the same, if this assignment	e to said assignee, and s scignee, and s ranted therefo sors and assigneed, and the sues and prole ing thereto, for sissues and pin as ample an	mor, the recei aid assignee's nd all division r, including ar ns, to have, ho said invention ngations there and dufing the olongations the d beneficial a	pt of which is successors and sand continually and all renewally exercise and any and of, with all the eterm or term erreof, for the	hereby acknowl assigns, the full ions thereof, and wals, reissues and lenjoy the said a all patents whice rights, powers, as of any and all use and benefit	edged, said assi and exclusive ri in and to said in prolongations oplication, inclu th may be gran privileges and a such patents w of said assign	gnor hereby ght, title and nvention and thereof; said ding any and ted therefor dvantages in hen granted ee, and said
AND said assignor hereby assigns, any and all acts relating to and prolongations thereof.						
AND said assignor authori	zes and remies	ts the Commis	sioner of Pate	nte and Trademar	ke to icone I ette	ers Patent or
said application, and on any and all	divisions and	continuations	thereof, to said	assignee, and sa	id assignee's su	ccessors and
assigns, in accordance herewith.						
As an above-named invent made by me, and that I am the origin	or, I hereby d al inventor or	eclare that the an original joi	above-identifi nt inventor of	ed application was claimed inventi-	s made or auth on in the applica	orized to be stion.
I hereby acknowledge that	any willful fal	se statement n	nade in this de	claration is punis	hable under 18	U.S.C. 1001
by fine or imprisonment of not more	man nve (3)	years, or boun.				
ASSIGNOR (INVENTOR):						
	<u> </u>	***************************************			16/2001	k :55
Signature:				Date: 6/	>/ 204/	
Printed or Typed Name: Hyung Ji	n PARK		ž		**************************************	

Page 1 of 3



2040359/ **RATENT**4/2021-06-05 08:18 **REEL: 056700 FRAME: 0275**

Attorney Docket No.: SHINSUNG:IVX000145899(P21H0005/US)

ASSIGNMENT OF AND DECLARATION (37 CFR 1.63) FOR APPLICATION FOR UNITED STATES LETTERS PATENT

	WHEREAS Jung Wook KIM	, hereinafter referred to coll	ectively as the assignor ar	nd inventor, has invented a
ce	rtain improvement relating to			
SE	MICONDUCTOR DEVICE			
Ī] said application being attached hereto;] said application having been filed in th, as Application Serial No] the specification of which was filed un rial No, the United States	, and was amended der the Patent Cooperation	on	(if applicable);
sa pa	AND WHEREAS SK hynix Inc. corea, hereinafter referred to as the assigned application, including any and all divisit applications), and in and to said inventerefor, including any and all renewals, research.	ee or applicant, is desirous of sions and continuations there tion and improvements ("inv	f acquiring the entire righ eof (i.e. divisional, contin ention") and any and all p	t, title and interest in and to uation, and continuation-in-
as interest and an incertainty	NOW THIS WITNESSETH, that insideration paid by said assignee to saisigns, sells and transfers to said assignee erest in and to said application, including and all patents which may be granted signee, and said assignee's successors and divisions and continuations thereof, alcluding any and all renewals, reissues anywise arising from or appertaining therecluding any and all renewals, reissues signee's successors and assigns, in as an joyed the same, if this assignment had no	Id assignor, the receipt of value and said assignee's successing any and all divisions and of therefor, including any and divisions, to have, hold, exerned the said invention and all prolongations thereof, with and prolongations thereof, and prolongations thereof, and prolongations thereof, and beneficial a manning	which is hereby acknowle sors and assigns, the full a continuations thereof, and all renewals, reissues and reise and enjoy the said ap any and all patents which hall the rights, powers, por terms of any and all for the use and benefit	edged, said assignor hereby and exclusive right, title and in and to said invention and prolongations thereof; said oplication, including any and h may be granted therefor, privileges and advantages in such patents when granted, of said assignee, and said
	AND said assignor hereby agrees signs, any and all acts relating to the obta d prolongations thereof.			
	AND said assignor authorizes and id application, and on any and all divisions signs, in accordance herewith.			
	As an above-named inventor, I he ade by me, and that I am the original inve	ereby declare that the above entor or an original joint inv	-identified application wa entor of a claimed inventi	as made or authorized to be on in the application.
by	I hereby acknowledge that any wi fine or imprisonment of not more than f		a this declaration is punis	hable under 18 U.S.C. 1001
A.	SSIGNOR (INVENTOR):			
Si	gnature:	13	Date: 6/5	/2021
Pr	inted or Typed Name: <u>Juny Wook KIN</u>	1		
		Page 2 of 3		



ASSIGNMENT OF AND DECLARATION (37 CFR 1.63) FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS Hyo Jun LEE hereinafter	referred to collectively as the assignor and inventor, has invented a
certain improvement relating to	
SEMICONDUCTOR DEVICE	
7773 1 3 380 45 b. Co 4 b 4 b 4 b	
[X] said application being attached hereto;] said application having been filed in the United Sta	tates Patent and Trademark Office on
	nd was amended on(if applicable);
] the specification of which was filed under the Pater	ent Cooperation Treaty on
Serial No, the United States of America I	being designated.
Korea, hereinafter referred to as the assignee or applica said application, including any and all divisions and cor	reonschung-daero, Bubal-eub, Icheon-si, Gyeonogi-do, Republic of cant, is desirous of acquiring the entire right, title and interest in and to ontinuations thereof (i.e. divisional, continuation, and continuation-in-provements ("invention") and any and all patents which may be granted prolongations thereof;
assigns, sells and transfers to said assignee, and said as interest in and to said application, including any and all any and all patents which may be granted therefor, inc assignee, and said assignee's successors and assigns, to all divisions and continuations thereof, and the said including any and all renewals, reissues and prolongations arising from or appertaining thereto, for and including any and all renewals, reissues and prolongations and all renewals, reissues and prolongations and all renewals, reissues and prolongations.	the receipt of which is hereby acknowledged, said assignor hereby assignee's successors and assigns, the full and exclusive right, title and all divisions and continuations thereof, and in and to said invention and cluding any and all renewals, reissues and prolongations thereof; said to have, hold, exercise and enjoy the said application, including any and invention and any and all patents which may be granted therefore the successful during the term or terms of any and all such patents when granted the analysis thereof, for the use and benefit of said assignee, and said eneficial a manner as the said assignor might or could have held and the.
	n, upon the request of said assignee, or said assignee's successors of the asserting of said patents, including any and all renewals, reissue
	ne Commissioner of Patents and Trademarks to issue Letters Patent of tinuations thereof, to said assignee, and said assignee's successors and
assigns, in accordance herewith.	
As an above-named inventor, I hereby declar- made by me, and that I am the original inventor or an o	re that the above-identified application was made or authorized to boriginal joint inventor of a claimed invention in the application.
	statement made in this declaration is punishable under 18 U.S.C. 100
by fine or imprisonment of not more than five (5) years	's, or both.
ASSIGNOR (INVENTOR):	
1 2 9	//-/>
0 22	6/5/2021
Signature:	Date:
Printed or Typed Name: Hyo Jun LEE	
1 1111101 01 1 1 poc 1 111110	
	Down 3 of 3
	Page 3 of 3