### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5569005

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
HEE YOUL LEE	05/29/2019
SUNG HO BAE	05/30/2019

#### **RECEIVING PARTY DATA**

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

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number	
Application Number:	16439401	

#### **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:	PO170368HD-CIP	
NAME OF SUBMITTER:	MYUNG SOO KIM	
SIGNATURE:	/Myung Soo KIM/	
DATE SIGNED:	06/12/2019	
	This document serves as an Oath/Declaration (37 CFR 1.63).	

#### **Total Attachments: 2**

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PATENT 505522200 REEL: 049450 FRAME: 0591

Attorney Docket No.: Po170368HD-CIP

## ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS	Hee Youl LEE	, hereinafter referred to
collectively as the assign	nor and inventor, has invented a cer	rtain improvement relating to
		LLER, A STORAGE DEVICE INCLUDING THE MEMORY PERATING METHOD THEREOF
[X] said application being [X] said application having [X]	ing been filed in the United States F	Patent and Trademark Office on No, and was amende
on	(if app	elicable); coperation Treaty on
[ ] the specification of v Serial No	which was filed under the Patent Co , the United States (	operation Treaty on, of America being designated.
AND WHEREAS . Republic of Korea	SK hynix Inc. of 2091,	Gyeongchung-daero, Buhal-eub, Icheon-si, Gyeonggi-do,
hereinafter referred to a application, including ar	s the assignee or applicant, is desire ny and all divisions and continuatio	ous of acquiring the entire right, title and interest in and to said ons thereof, and in and to said invention and any and all patents vals, reissues and prolongations thereof;
consideration paid by sassigns, sells and transfi interest in and to said apany and all patents which assignce, and said assignall divisions and contitionally including any and all reanywise arising from or including any and all assignee's successors ar	said assignee to said assignor, the ers to said assignee, and said assign oplication, including any and all div ch may be granted therefor, including nee's successors and assigns, to have muations thereof, and the said inverse means, reissues and prolongations or appertaining thereto, for and dur renewals, reissues and prolongation renewals, reissues and prolongation	nsideration of One Dollar (\$1.00), and other good and valuable receipt of which is hereby acknowledged, said assignor hereless successors and assigns, the full and exclusive right, title an visions and continuations thereof, and in and to said invention at ing any and all renewals, reissues and prolongations thereof; said, hold, exercise and enjoy the said application, including any argention and any and all patents which may be granted therefor thereof, with all the rights, powers, privileges and advantages ring the term or terms of any and all such patents when granteens thereof, for the use and benefit of said assignee, and said a manner as the said assigner might or could have held as
	relating to the obtaining or to the	oon the request of said assignee, or said assignee's successors asserting of said patents, including any and all renewals, reissu
	any and all divisions and continua	ommissioner of Patents and Trademarks to issue Letters Patent on thereof, to said assignee, and said assignee's successors are successors as a successor and said assignee's successors are successors as a successor and said assignee's successors are successors as a successor and said assigneed as a successor and said assigneed as a successor and said as a successor as a suc
		at the above-identified application was made or authorized to lead joint inventor of a claimed invention in the application.
	wiedge that any willful false staten of not more than five (5) years, or	ment made in this declaration is punishable under 18 U.S.C. $100$ both.
ASSIGNOR (INVENT	OR):	
Signature:	Hex Youlle	은 <u>6 29 20/9</u>
Printed or Typed Name:	Hee Youl LE	E.

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Attorney Docket No.: Po170368HD-CIP

# ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS	Sung Ho BAE		, hereinafter referred to
	ignor and inventor, has invented a		
A MEMORY	Z DEVICE, A MEMORY CONTR	OLLER, A STORAGE DEVICE	INCLUDING THE MEMORY
	MEMORY CONTROLLER AND		
[X] said application b	eing attached bereto:		
said application ha	iving been filed in the United State	s Patent and Trademark Office o	n
	, as Application Seri	ial No.	, and was amended
on	(if a f which was filed under the Patent	pplicable);	
[ ] the specification o	f which was filed under the Patent	Cooperation Treaty on	<del>`</del>
Serial No.	the United State	es of America being designated.	
AND WHEREAS Republic of Korea	S SK hynix Inc. of 209	11. Gyeongchung-daero, Bubal-e	ub, Icheon-si, Gyeonggi-do,
	as the assignee or applicant, is des	irous of acquiring the entire righ	t, title and interest in and to said
	any and all divisions and continual therefor, including any and all ren		
NAW THE	WITNESSETU that for and in	associated of Oss Dallas (6)	1 00) and other good and valuable
			1.00), and other good and valuable icknowledged, said assignor hereby
			the full and exclusive right, title and
			eof, and in and to said invention and
			sues and prolongations thereof; said
			e said application, including any and
			nts which may be granted therefor
			owers, privileges and advantages in
			and all such patents when granted
			benefit of said assignee, and said
		eficial a manner as the said assi	ignor might or could have held and
enjoyed the same, if the	nis assignment had not been made.		
CMD C			., ,
			ee, or said assignee's successors of
assigns, any and an ar and prolongations the		ne asserting of said patents, there	uding any and all renewals, reissue:
und protongations are	cu.		
			rademarks to issue Letters Patent or
		nuations thereof, to said assignee	e, and said assignee's successors and
assigns, in accordance	: herewith.		
As an above	-named inventor. I hereby declare	that the above-identified applic	ation was made or authorized to be
	I am the original inventor or an ori		
L barabo anto	navidades that any willful false sta	towant made in this declaration	is munichable under 19 U.S.C. 100
by fine or imprisonme	ent of not more than five (5) years,	or both	is punishable under 18 U.S.C. 1001
ay ana or mapaneanise	01 3100 111012 111013 1110 (0) 3 1010,	0.000	
ASSIGNOR (INVEN	TOR):		
Signatura:	Suna Ho Rap.	Postar	2019 5 30
សម្តេយលេក,	Sung Ho Bae	Date:	
Printed or Typed Nan	ne: Sung Ho B	AE	
		N 2 62	

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