505756584 11/04/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5803398

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HYE-MI KANG	10/18/2019
EU-JOON BYUN	10/18/2019

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:	16673730

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:	FP19-1861/HNX/US
NAME OF SUBMITTER:	KEON WOO PARK
SIGNATURE:	/Keon Woo PARK/
DATE SIGNED:	11/04/2019
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 2

source=FP19-1861HNXUS_Executed Assignment&Declaration.docx#page1.tif source=FP19-1861HNXUS_Executed Assignment&Declaration.docx#page2.tif

PATENT 505756584 REEL: 050910 FRAME: 0232

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT IVX000143155

Attorney Docket No.: FP19-1861/HNX/US

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS Hye-Mi KANG , hereinafter referred to collectively as the assignment of the collective of the	mor an	d inver	itor, has
invented a certain improvement relating to			
MEMORY SYSTEM, MEMORY CONTROLLER AND META-INFORMATION STORAGE DEV	ICE,		
[X] said application being attached hereto; [] said application having been filed in the United States Patent and Trademark Office on, as Application Serial No, on	and ,	was	amended
AND WHEREAS SK Hynix Inc.			
hereinafter referred to as the assignee or applicant, is desirous of acquiring the entire right, title and in application, including any and all divisions and continuations thereof, and in and to said invention an which may be granted therefor, including any and all renewals, reissues and prolongations thereof; NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and of consideration paid by said assignee to said assigner, the receipt of which is hereby acknowledge assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and interest in and to said application, including any and all divisions and continuations thereof, and in a any and all patents which may be granted therefor, including any and all renewals, reissues and processignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said applicated all divisions and continuations thereof, and the said invention and any and all patents which may including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privically anywise arising from or appertaining thereto, for and divining the term or terms of any and all suclincluding any and all renewals, reissues and prolongations thereof, for the use and benefit of assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might enjoyed the same, if this assignment had not been made. AND said assignor hereby agrees to perform, upon the request of said assignee, or said assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and prolongations thereof.	ther go d, said exclusi nd to solongat ation, i ay be leges a h paten said as or cou	ood and assign ve right aid invitons the neludingrantee and adverse lid have	d valuable nor hereby it, title and ention and ereof; said ag any and d therefor, rantages in m granted, , and said e held and
AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to said application, and on any and all divisions and continuations thereof, to said assignee, and said assigns, in accordance herewith.			
As an above-named inventor, I hereby declare that the above-identified application was made by me, and that I am the original inventor or an original joint inventor of a claimed invention in			
I hereby acknowledge that any willful false statement made in this declaration is punishable by fine or imprisonment of not more than five (5) years, or both.	e unde	r 18 U	.S.C. 1001
ASSIGNORS (INVENTORS):			
Signature: Hyemī, Kang Date: 2019.10.18			
Defeat of the Third National State of the National State of the State			
Printed or Typed Name: Hye-Mi KANG		*	

Page 1 of 2



ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

IVX000143155

Attorney Docket No.: FP19-1861/HNX/US

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS Eu-Joon BYUN , hereinafter referred to collectively as the assignor and invent	or, has invented a
certain improvement relating to	
MEMORY SYSTEM, MEMORY CONTROLLER AND META-INFORMATION STORAGE DEV	/ICE,
[X] said application being attached hereto; [] said application having been filed in the United States Patent and Trademark Office on , as Application Serial No,	and was amended
on(if applicable);	
[] the specification of which was filed under the Patent Cooperation Treaty on Serial No, the United States of America being designated.	
AND WHEREAS SK Hynix Inc.	
hereinafter referred to as the assignee or applicant, is desirous of acquiring the entire right, title and i application, including any and all divisions and continuations thereof, and in and to said invention are which may be granted therefor, including any and all renewals, reissues and prolongations thereof; NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and consideration paid by said assignee to said assigner, the receipt of which is hereby acknowledge assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and interest in and to said application, including any and all divisions and continuations thereof, and in a any and all patents which may be granted therefor, including any and all renewals, reissues and proassignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said applicable divisions and continuations thereof, and the said invention and any and all patents which may including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privanywise arising from or appertaining thereto, for and during the term or terms of any and all suc including any and all renewals, reissues and prolongations thereof, for the use and benefit of assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might enjoyed the same, if this assignment had not been made.	other good and valuable ed, said assignor hereby exclusive right, title and and to said invention and colongations thereof; said cation, including any and hay be granted therefor, ileges and advantages in h patents when granted, said assignee, and said
AND said assignor hereby agrees to perform, upon the request of said assignee, or said assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any a and prolongations thereof.	
AND said assignor authorizes and requests the Commissioner of Patents and Trademarks t said application, and on any and all divisions and continuations thereof, to said assignee, and said a assigns, in accordance herewith.	
As an above-named inventor, I hereby declare that the above-identified application was made by me, and that I am the original inventor or an original joint inventor of a claimed invention in	
I hereby acknowledge that any willful false statement made in this declaration is punishab by fine or imprisonment of not more than five (5) years, or both.	le under 18 U.S.C. 1001
ASSIGNORS (INVENTORS):	
Signature:	
Printed or Typed Name: Eu-Joon BYUN	

Page 2 of 2