PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT5692176

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DUCK HOI KOO	08/05/2019
YONG TAE KIM	08/05/2019
SOONG SUN SHIN	08/05/2019
CHEON OK JEONG	08/05/2019

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:	16554306

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.

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Address Line 2: SUITE 650

Address Line 4: VIENNA, VIRGINIA 22182

ATTORNEY DOCKET NUMBER:	OPX17092-056US_CA	
NAME OF SUBMITTER:	JUN JEONG PARK	
SIGNATURE:	/Jun Jeong Park/	
DATE SIGNED:	08/28/2019	
	This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 2

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ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS KOO, Duck Hoi et al., hereinafter referred to collectively as the assignor and inventor, has invented a
certain improvement relating to
DATA STORAGE DEVICE AND OPERATING METHOD THEREOF
[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 WHEREASSK hynix Inc
hereinafter referred to as the assignee or applicant, is desirous of acquiring the entire right, title and interest in and to said
application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents 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 other good and valuable
consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged, said assignor hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might or could have held and 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 assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.
AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.
As an above-named inventor, I hereby declare that the above-identified application was made or authorized to be made by me, and that I am the original inventor or an original joint inventor of a claimed invention in the application.
I 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.
ASSIGNOR (INVENTOR):
Signature: Koo Mok Moi Date: August 5, 2019
Printed or Typed Name: KOO, Duck Hoi
마이 이번 발표하는 것이 이 시간에 가득하지만 되었다. 그들은 사람들은 이 이 시간 수 생활하를 보여 발생하는 것이다.

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ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

Signature: Fim Youy Tae	Date: August 5, 2019
Printed or Typed Name: KIM, Yong Tae	
Signature: The Soony Sun	Date: August 5, 2019
Printed or Typed Name: SHIN, Soong Sun	
Signature: <u>Jeong</u> WeonOK	Date: August 5, 2019
Printed or Typed Name: <u>JEONG, Cheon Ok</u>	

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