503918128 07/15/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT3964781

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KWANG IL CHOI	07/07/2016
SUNG KUN PARK	07/07/2016
NAM YOON KIM	07/07/2016

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:	15212049

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: 571-327-5450

ipntlaw@ipntlaw.com Email: **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:	HYP16621/US
NAME OF SUBMITTER:	JUN JEONG PARK
SIGNATURE:	/Jun Jeong PARK/
DATE SIGNED:	07/15/2016
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

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> **PATENT REEL: 039170 FRAME: 0763** 503918128

Attorney Docket No.: HYP16621/US

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS	CHOI, Kwang II	, hereinafter referred to collectively as the
assignor and inventor.	, has invented a certain împrov	ement relating to
***************************************	SINGLE-POLY NONY	OLATILE MEMORY CELLS .
on	aving been filed in the United S as Application	States Patent and Trademark Office on Serial No
application, including	any and all divisions and cont	s desirous of acquiring the entire right, title and interest in and to said interiors thereof, and in and to said invention and any and all patents renewals, reissues and prolongations thereof;
consideration paid by assigns, sells and trar interest in and to said any and all patents wassignee, and said assall divisions and corincluding any and all anywise arising from including any and a assignee's successors	y said assignee to said assign isfers to said assignee, and said application, including any and hich may be granted therefor, lignee's successors and assigns, minuations thereof, and the same renewals, reissues and prolon or appertaining thereto, for a if renewals, reissues and prolon	in consideration of One Dollar (\$1.00), and other good and valuable or, the receipt of which is hereby acknowledged, said assignor hereby dessignee's successors and assigns, the full and exclusive right, title and fall divisions and continuations thereof, and in and to said invention and including any and all renewals, reissues and prolongations thereof; said to have, hold, exercise and enjoy the said application, including any and aid invention and any and all patents which may be granted therefor, gations thereof, with all the rights, powers, privileges and advantages in and during the term or terms of any and all such patents when granted, longations thereof, for the use and benefit of said assignee, and said beneficial a manner as the said assignor might or could have held and ade.
	ets relating to the obtaining or	orm, upon the request of said assignee, or said assignee's successors or to the asserting of said patents, including any and all renewals, reissues
	on any and all divisions and c	the Commissioner of Patents and Trademarks to issue Letters Patent on ontinuations thereof, to said assignee, and said assignee's successors and
		clare that the above-identified application was made or authorized to be n original joint inventor of a claimed invention in the application.
	mowledge that any willful fals ent of not more than five (5) ye	e statement made in this declaration is punishable under 18 U.S.C. 1001 ears, or both.
ASSIGNOR (INVES	ITORj:	
Signature:	: (more)	Date:
Printed or Typed Nat	ne: CHOI, Kwang	<u>U</u>

Attorney Docket No.: HYP16621/US

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS	PARK, Sung Kun	, hereinafter referred to	collectively as the
assignor and inventor.	has invented a certain improvement re	lating to	
<u></u>	INGLE-POLY NONVOLATILE MEA	(ORY CELLS	Verson ve
on [] the specification of	ving been filed in the United States Pa , as Application Serial N	io. , , , , , , , , , , , , , , , , , , ,	and was amended
hereinafter referred to application, including	SK hynix Inc. as the assignee or applicant, is desired any and all divisions and continuation therefor, including any and all renewa	s of acquiring the entire right, title and i thereof, and in and to said invention ar	interest in and to said ad any and all patents
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 assigner, the receipt of which is hereby acknowledged, said assigner 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 form 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 as assigns, any and all ad and prolongations the	its relating to the obtaining or to the a	on the request of said assignee, or said asserting of said patents, including any	assigned's successors or and all renewals, reissues
AND said as said application, and a assigns, in accordance	on any and all divisions and continuat	smissioner of Patents and Trademarks ions thereof, to said assignee, and said	to issue Letters Patent on assignce's successors and
As an above made by me, and that	-named inventor, I hereby deciare tha I am the original inventor or an original	t the above-identified application was a d joint inventor of a claimed invention i	made or authorized to be in the application.
	nowledge that any willful false statem int of not more than five (5) years, or b	ent made in this de claration is punishal Oth.	ole under 18 U.S.C. 1001
ASSIGNOR (INVEN	TOR):		
Signature: Pe	wk Sung-Kun	Date: 7/7/2016	
Printed or Typed Nan	re: PARK, Sung Kun	illo a	

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Attorney Docker No.: HYP16621/US

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS	KIM, Nam Yoon		, hereinafter referred to	collectively as the
assignor and inventor.	has invented a certain improve	ment relating to		
_	SINGLE-POLY NONV	OLATILE MEMORY	CELLS	
OB	ing attached hereto; ving been filed in the United St , as Application ((which was filed under the Pate	Serial No if applicable);		
	the United States of			·············
application, including	SK hynix Incas the assignee or applicant, is any and all divisions and continuitherefor, including any and all	nuations thereof, and is	n and to said invention	and any and all patents
consideration paid by assigns, sells and transinterest in and to said any and all patents whas ignee, and said assignee, and said assigned any and all anywise arising from including any and all assignee's successors.	WITNESSETH, that for and said assignee to said assignee, and said application, including any and saich may be granted therefor, it gnee's successors and assigns, tinuations thereof, and the said renewals, reissues and prolong or appertaining thereto, for any renewals, reissues and prolong and assigns, in as ample and liss assignment had not been ma	r, the receipt of whice assignee's successors all divisions and continuously and all to have, hold, exercise id invention and any pations thereof, with a during the term or ongations thereof, for beneficial a manner as	th is hereby acknowled and assigns, the full ar inuations thereof, and in renewals, reissues and and enjoy the said app and all patents which if the rights, powers, pot terms of any and all so the use and benefit	dged, said assignor hereby nd exclusive right, title and n and to said invention and prolongations thereof; said plication, including any and a may be granted therefor, rivileges and advantages in such patents when granted, of said assignce, and said
	signor hereby agrees to performs relating to the obtaining or eof.			
	signor authorizes and requests on any and all divisions and co herewith.			
	named inventor, I hereby deci I am the original inventor or an			
	nowledge that any willful false at of not more than five (5) yes		is declaration is punish	able under 18 U.S.C. 1001
ASSIGNOR (INVEN				
Signature:	1 No. Jan	Date:	111/2016	•
Printed or Typed Nan	ne: <u>KIM. Nam Yoo</u> i	3		

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