502169438 12/19/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date	
Min-Soo KIM	12/18/2012	
Young-Jin LEE	12/18/2012	
Sung-Jin WHANG	12/18/2012	

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:	13720123

CORRESPONDENCE DATA

Fax Number: 5713275452

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 571-327-5450

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:	P12H0152/US
NAME OF SUBMITTER:	Jun Jeong PARK
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

source=IVX000130705_P12H0152US_ASSIGNMENT&DECLARATION#page1.tif source=IVX000130705_P12H0152US_ASSIGNMENT&DECLARATION#page2.tif source=IVX000130705_P12H0152US_ASSIGNMENT&DECLARATION#page3.tif

PATENT REEL: 029501 FRAME: 0817 OP \$40,00 1372012

Attorney Docke	et No.:		
ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT			
WHEREAS KIM, Min-Soo		_, herein	after
referred to collectively as the assignor and inventor, has invented a certain improvement relating to NONVOLATILE MEMORY DEVICE AND METHOD FOR FABRICATING			
[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 (if applicable):	, 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 application, including any and all divisions and continuations thereof, and in and to said invention a which may be granted therefor, including any and all renewals, reissues and prolongations thereof;	interest	in and t	o said
NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledgassigns, 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 any and all patents which may be granted therefor, including any and all renewals, reissues and passignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said appliable divisions and continuations thereof, and the said invention and any and all patents which 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 su 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 migh enjoyed the same, if this assignment had not been made.	ged, said exclust and to rolongatication, may be vileges of pate f said a	d assign said investions the including granted and advents when assignee,	or hereby t, title and ention and ereof; said ag any and I therefor, antages in n granted, 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 and prolongations thereof.	l assign and all	ee's suc renewals	cessors or s, reissues
AND said assignor authorizes and requests the Commissioner of Patents and Trademarks said application, and on any and all divisions and continuations thereof, to said assignee, and said assigns, in accordance herewith.	to issue assigne	e Letters e's succe	Patent on essors and
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	made or	r authori	ized to be n.
I hereby acknowledge that any willful false statement made in this declaration is punishably fine or imprisonment of not more than five (5) years, or both.	ole unde	er 18 U.:	S.C. 1001
ASSIGNOR (INVENTOR):			

Date: December 18, 2012

Page 1 of 1

Printed or Typed Name: KIM, Min-Soo

Signature:

KIM Min-SOO

Attorney Docket No.:	_
ASSIGNMENT OF AND DECLARATION FOR APPLICATION	
FOR UNITED STATES LETTERS PATENT	

WHEREAS LEE, Young-Jin , hereinafter referred to collectively as the assignor and inventor, has invented a certain improvement relating to NONVOLATILE MEMORY DEVICE AND METHOD FOR FABRICATING THE SAME [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 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): LEE, Young - Jin Date: December 18, 2012 Printed or Typed Name: <u>LEE, Young-Jin</u>

Page 1 of 1

Attorney Docket No.	•

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS	WHANG, Sung-Jin	, he	reinafter
referred to collectively	as the assignor and inventor, has invented a certain improvement relating to		
NONVOLATILE	MEMORY DEVICE AND METHOD FOR FABRICATING TH	HE SAME	
[X] said application be	sing attacked housts.		
	aving been filed in the United States Patent and Trademark Office on		
	, as Application Serial No,	and was	amended
on	(if applicable); f which was filed under the Patent Cooperation Treaty on		
[] the specification of	which was filed under the Patent Cooperation Treaty on	_	
Serial No.	, the United States of America being designated.		
	SK hynix Inc.		
	as the assignee or applicant, is desirous of acquiring the entire right, title and int		
	any and all divisions and continuations thereof, and in and to said invention and therefor, including any and all renewals, reissues and prolongations thereof;	any and all	patents
NOW THIS	WITNESSETH, that for and in consideration of One Dollar (\$1.00), and ot	her good an	d valuable
	said assignee to said assignor, the receipt of which is hereby acknowledged afters to said assignee, and said assignee's successors and assigns, the full and ex-		
	application, including any and all divisions and continuations thereof, and in an		
	nich may be granted therefor, including any and all renewals, reissues and prol		
	gnee's successors and assigns, to have, hold, exercise and enjoy the said applica		
all divisions and cont	tinuations thereof, and the said invention and any and all patents which ma	y be grante	d therefor,
anyonise arising from	renewals, reissues and prolongations thereof, with all the rights, powers, privile or appertaining thereto, for and during the term or terms of any and all such	eges and adv	/antages in
	renewals, reissues and prolongations thereof, for the use and benefit of s		
	and assigns, in as ample and beneficial a manner as the said assignor might of		
	is assignment had not been made.		
AND said ass	signor hereby agrees to perform, upon the request of said assignee, or said a	nnianaala ay	
	its relating to the obtaining or to the asserting of said patents, including any and		
and prolongations there			, 10100000
1275			_
AND said ass	signor authorizes and requests the Commissioner of Patents and Trademarks to on any and all divisions and continuations thereof, to said assignee, and said ass	issue Letters	Patent on
assigns, in accordance		signee's succ	essors and
•			
	named inventor, I hereby declare that the above-identified application was ma		
made by me, and that I	arm the original inventor or an original joint inventor of a claimed invention in t	the application	on.
I hereby ackn	nowledge that any willful false statement made in this declaration is punishable	under 18 U	.S.C. 1001
	nt of not more than five (5) years, or both.		
ASSIGNOR (INVENT	ΓOR):		
1.5	C +		
Signature: Wh	ang Sung Jin Date: December 18, 201	12	
Printed or Typed Name	e: WHANG, Sung-Jin		

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