PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Sung-Won LIM	08/21/2013
Seung-Jin YEOM	08/21/2013
Hyo-Seok LEE	08/21/2013

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:	14040162

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:	P13H0041/US
NAME OF SUBMITTER:	Myung Soo KIM
Signature:	/Myung Soo KIM/
Date:	09/27/2013
	PATENT

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This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

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PATENT REEL: 031302 FRAME: 0374

SHINSUNG: IVX000132554

Attorney Docket No.:

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT	
WHEREAS LIM, Sung-Won , herein	after
referred to collectively as the assignor and inventor, has invented a certain improvement relating to	
SEMICONDUCTOR DEVICE WITH AIR GAP AND METHOD FOR FABRICATING THE SAME	Ģ.
	_
[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, and, and, and	amended
on(if applicable); [] the specification of 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.	
AND WHEREAS SK hynix Inc.	
hereinafter referred to as the assignce or applicant, is desirous of acquiring the entire right, title and interest in and to application, including any and all divisions and continuations thereof, and in and to said invention and any and all pawhich may be granted therefor, including any and all renewals, reissues and prolongations thereof;	said tents
NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and other good and consideration paid by said assignee to said assigner, the receipt of which is hereby acknowledged, said assignes assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusive right, interest in and to said application, including any and all divisions and continuations thereof, and in and to said invertible any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations there assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including all divisions and continuations thereof, and the said invention and any and all patents which may be granted including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and adva anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might or could have enjoyed the same, if this assignment had not been made.	r hereby title and ntion and cof; said any and therefor, ntages in granted, and said
AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's succeassigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, and prolongations thereof.	essors or reissues
AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters I said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successassigns, in accordance herewith.	atent on sors and
As an above-named inventor, I hereby declare that the above-identified application was made or authorize made by me, and that I am the original inventor or an original joint inventor of a claimed invention in the application	ed to be
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S by fine or imprisonment of not more than five (5) years, or both.	.C. 1001
ASSIGNOR (INVENTOR):	
Signature: LIM Sung Won Date: 2013/08/21	
	_
Printed or Typed Name: LIM, Sung-Won	
Page 1 of 1	dermic.
rage rour	

REEL: 031302 FRAME: 0375

SHINSUNG: IVX000132554

Anomey Docket Ivo.:	
ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT	
WHEREAS YEOM, Seung-Jin , hereinafte	3
referred to collectively as the assignor and inventor, has invented a certain improvement relating to	
SEMICONDUCTOR DEVICE WITH AIR GAP AND METHOD FOR FABRICATING	
THE SAME	
[X] said application being attached hereto; [3] said application having been filed in the United States Patent and Trademark Office on	ded
on(if applicable); [] the specification of 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.	
described to the second of the	
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;	24
NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and other good and valuations paid by said assignee to said assigner, the receipt of which is hereby acknowledged, said assigner her assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusive right, title interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any all divisions and continuations thereof, and the said invention and any and all patents which may be granted there including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantage anywise arising from or appertaining thereto, for and divining the term or terms of any and all such patents when granticulating any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignce, and assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might or could have held enjoyed the same, if this assignment had not been made.	eby and and said and for, s in ted, said
AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's successor assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reis and prolongations thereof.	s or sues
AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Paten said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors assigns, in accordance herewith.	t on and
As an above-named inventor, I hereby declare that the above-identified application was made or authorized to made by me, and that I am the original inventor or an original joint inventor of a claimed invention in the application.	be to
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1 by fine or imprisonment of not more than five (5) years, or both.	001
ASSIGNOR (INVENTOR):	
Signature: Jeom. Seugsen Date: 2013/08/21	
Printed or Typed Name: YEOM, Seung-Jin	
Page 1 of 1	

Attorney Docket No.:

FOR UNITED STATES LETTERS PATENT	
WHEREAS LEE, Hyo-Seok	, hereinafter
referred to collectively as the assignor and inventor, has invented a certain improvement relating to) :
SEMICONDUCTOR DEVICE WITH AIR GAP AND METHOD FOR E	FABRICATING
THE SAME	and the second s
[X] said application being attached hereto;	
I 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.	865
hereinafter referred to as the assignee or applicant, is desirous of acquiring the entire right, title an	d interest in and to said
application, including any and all divisions and continuations thereof, and in and to said invention which may be granted therefor, including any and all renewals, reissues and prolongations thereof.	and any and all patents
NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), an	d ather and and valuable
consideration paid by said assignee to said assignor, the receipt of which is hereby acknowle	
assigns, sells and transfers to said assignce, and said assignce's successors and assigns, the full at	nd exclusive right, title and
interest in and to said application, including any and all divisions and continuations thereof, and i	
any and all patents which may be granted therefor, including any and all renewals, reissues and assignee, and said assignee's successors and assignee, and said assignee and enjoy the said app	
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, p	rivileges and advantages in
anywise arising from or appertaining thereto, for and during the term or terms of any and all including any and all renewals, reissues and prolongations thereof, for the use and benefit	such patents when granted,
assignce's successors and assigns, in as ample and beneficial a manner as the said assignor mig	or said assigned, and said the 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 sa	id accionee's successors or
assigns, any and all acts relating to the obtaining or to the asserting of said patents, including an	y and all renewals, reissues
and prolongations thereof.	
AND said assignor authorizes and requests the Commissioner of Patents and Trademark	s to issue Letters Patent on
said application, and on any and all divisions and continuations thereof, to said assignee, and sai	d assignce's successors and
assigns, in accordance herewith.	
As an above-named inventor, I hereby declare that the above-identified application was	s made or authorized to be
made by me, and that I am the original inventor or an original joint inventor of a claimed invention	n in the application.
I hereby acknowledge that any willful false statement made in this declaration is punish	oble under 1911 SC 1001
by fine or imprisonment of not more than five (5) years, or both.	acte mace to provertes
ASSIGNOR (INVENTOR):	
s mach	
Signature: Lee Hyo Scok Date: 2013/08/21	
Printed or Typed Name: LEE, Hyo-Seok	
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Page 1 of 1	



RECORDED: 09/27/2013

임성원/ORAM공정T팀/이천/1286

B3100B/178.203.3.33/2013-08-21 19:29 **PATENT**

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