PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date	
Chung-Seok CHOI	08/08/2013	
Do-Hwan KIM	08/08/2013	
Jong-Chae KIM	08/23/2013	
Kyoung-Oug RO	08/23/2013	
Jang-Won MOON	08/23/2013	

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:	14010960

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:	P12H0298/US
NAME OF SUBMITTER:	Michael S. Brooke
Signature:	/Michael S. Brooke/

502473191 REEL: 031091 FRAME: 0084

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Date:	08/27/2013
	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 5 source=P12H0298US_Assignment#page1.t source=P12H0298US_Assignment#page2.t source=P12H0298US_Assignment#page3.t source=P12H0298US_Assignment#page4.t source=P12H0298US_Assignment#page5.t	if if if

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Attorney Docket No.:

referred to collectively as the assignor and inventor, has invented a certain improvement relating to ISOLATION STRUCTURE AND METHOD FOR FORMING THE SAME. SENSOR INCLUDING THE ISOLATION STRUCTURE AND METHOD I		ht	reinafie
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SENSOR INCLUDING THE ISOLATION STRUCTURE AND METHOD I	AND	TMA	GE
PARRICATING THE IMAGE SENSOR:			1
[X] said application being attached hersto;			
said application having been filed in the United States Patent and Trademark Office on			
as Application Serial No.	and	was	smende
on(If applicable); [] the specification of which was filed under the Patent Cooperation Treaty on			
Serial No, the United States of America being designated.			
Design 1200 """ word word with the work with the same and the same work with the same will be same will be same with the same will be same will be same with the same will be sam			
AND WHEREAS SK hynix Inc. hereinafter referred to as the assignes or applicant, is desirous of acquiring the entire right, title and			
NOW THIS WITNESSETH, that for and in consideration of the 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 any and all patents which may be granted therefor, including any and all renewals, reissues and prossignee, and said assignee's successors and assigns, to have, dolld, exercise and enjoy the said and all 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, privarywise arising from or appearationg therefor, for and thuring the term or terms of any and all 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. AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to the asserting of said assigns and Trademarks to the asserting of said patents.	ed, said exclusivand to sa olongati optication may be ileges as he patem said as or coul assigned all reference and all reference of issue	assign ve right sid inve ons the ons the m, incl grantee nd adve to when signee, id have e's suc enewal	or hereb t, title an ention an ereof; sai uding an d therefo antages i and sai e held an cessors i s, reissui
said application, and on any and all divisions and continuations thereof, to said assignee, and said a assigns, in accordance herewith.	ıssign ce	's succ	essors at
	nade or in the ap	author plicati	ized to l on.
As an above-named inventor, I hereby declare that the above-identified application was a made by me, and that I am the original inventor or an original joint inventor of a claimed invention in		r 18 U.	
As an above-named inventor, I hereby declare that the above-identified application was a 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 punishably fine or imprisonment of not more than five (5) years, or both.	ie unde		.s.c. 100
made by me, and that I am the original inventor or an original joint inventor of a claimed invention is I hereby acknowledge that any willful false statement made in this declaration is punishab	ie vnde		.s.c. 190
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 punishably fine or imprisonment of not more than five (5) years, or both.	ie unde		.s.c. 100

Anomey Docket No.: assignment of and declaration for application FOR UNITED STATES LETTERS PATENT WHEREAS KIM, Do-Hwan referred to collectively as the assignor and inventor, has invented a certain improvement relating to ISOLATION STRUCTURE AND METHOD FOR FORMING THE SAME, AND SENSOR INCLUDING THE ISOLATION STRUCTURE AND METHOD FOR FABRICATING THE IMAGE SENSOR [X] said application being attached hereto; [] said application having been filed in the United States Patent and Trademark Office on _____, as Application Serial No. (if applicable); 1 the specification of which was filed under the Patent Cooperation Treaty on _____, the United States of America being designated. AND WHEREAS SK bynix 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, field, 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 hereof, 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: Printed or Typed Name: _

Page lof I

SHINSUNG: TVX000132637

SHINSUNG: IVX000132637

Attorney Docket No.:
ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT
WHEREAS KIM, Jong-Chae hereinafter
referred to collectively as the assignor and inventor, has invented a certain improvement relating to
ISOLATION STRUCTURE AND METHOD FOR FORMING THE SAME, AND IMAGE SENSOR INCLUDING THE ISOLATION STRUCTURE AND METHOD FOR FABRICATING THE IMAGE SENSOR
[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, 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 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 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:
Printed or Typed Name: KIM, Jong-Chae

Page 1 of 1

SHINSUNG: IVX000132637

Attorney Docket No.

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT
WHEREAS RO, Kyoung-Oug hereinafter
referred to collectively as the assignor and inventor, has invented a certain improvement relating to
ISOLATION STRUCTURE AND METHOD FOR FORMING THE SAME, AND IMAGE SENSOR INCLUIDING THE ISOLATION STRUCTURE AND METHOD FOR FABRICATING THE IMAGE SENSOR
[X] said application being attached hereto; [] said application having been filed in the United States Patent and Trademark Office 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 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 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: Date: August 23,2013
Printed or Typed Name: RO, Kyoung-Oug

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SHINSUNG: IVX000132637

Attorney Docket No.:

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT	
WHEREAS MOON, Jang-Won	, hereinafter
referred to collectively as the assignor and inventor, has invented a certain improvement relating to	-
ISOLATION STRUCTURE AND METHOD FOR FORMING THE SAME, AND IMAGE SENSOR IN	CLUDING THE
ISOLATION STRUCTURE AND METHOD FOR FABRICATING THE IMAGE SENSOR	
[X] said application being attached hereto;	
[] said application having been filed in the United States Patent and Trademark Office on	
as Application Serial No.	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 <u>SK hynix Inc.</u> hereinsfier referred to as the assignee or applicant, is desirous of acquiring the entire right, title and interes	it in and to said
application, including any and all divisions and continuations thereof, and in and to said invention and any 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 a consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged, said assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusion the said application, including any and all divisions and continuations thereof, and in and to any and all patents which may be granted therefor, including any and all renewals, reissues and prolongs assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said applicat and all divisions and continuations thereof, and the said invention and any and all patents which may be including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges anywise arising from or appertaining thereto, for and during the term or terms of any and all such pate including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee's successors and assigns, in as ample and beneficial a manner as the said assigner might or composed the same, if this assignment had not been made.	id assignor hereby sive right, title and said invention and tions thereof; said ion, including any e granted therefor, and advantages in this when granted 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 and all and prolongations thereof:	
AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue said application, and on any and all divisions and continuations thereof, to said assignee, and said assigne assigns, in accordance herewith.	
As an above-named inventor, I hereby declare that the above-identified application was made or made by me, and that I am the original inventor or an original joint inventor of a claimed invention in the a	
I hereby acknowledge that any willful false statement made in this declaration is punishable und by fine or imprisonment of not more than five (5) years, or both.	er 18 U.S.C. 1001
ASSIGNOR (INVENTOR):	
Signature: Date: August 23,2013	
Signature: Date: August 23, 2013	
Printed or Typed Name: <u>MOON, Jang-Won</u>	
Page 1of 1	

RECORDED: 08/27/2013

REEL: 031091 FRAME: 0090