502833872 06/02/2014

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JA-SEUNG GOU	05/12/2014
MIN-KYU KIM	05/12/2014
OH-KYONG KWON	05/12/2014

RECEIVING PARTY DATA

Name:	SK HYNIX INC.
Street Address:	2091, GYEONGCHUNG-DAERO, BUBAL-EUB, ICHEON-SI
City:	GYEONGGI-DO
State/Country:	REPUBLIC OF KOREA
Name:	INDUSTRY-UNIVERSITY COOPERATION FOUNDATION HANYANG UNIVERSITY
Street Address:	17, HAENGDANG-DONG, SEONGDONG-GU
City:	SEOUL
State/Country:	REPUBLIC OF KOREA
Postal Code:	133-070

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14293736

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

Email:ipntlaw@ipntlaw.comCorrespondent Name:IP & T GROUP LLPAddress Line 1:8230 LEESBURG PIKE

Address Line 2: SUITE 650

Address Line 4: VIENNA, VIRGINIA 22182

ATTORNEY DOCKET NUMBER:	P13H0219/US
NAME OF SUBMITTER:	JUN JEONG PARK
SIGNATURE:	/Jun Jeong PARK/

PATENT 502833872 REEL: 033010 FRAME: 0504

DATE SIGNED:	06/02/2014
	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 3	
source=IVX000133601_P13H0219US_/	ASSIGNMENT&DECLARATION#page1.tif
source=IVX000133601_P13H0219US_ASSIGNMENT&DECLARATION#page2.tif	
source=IVX000133601_P13H0219US_/	ASSIGNMENT&DECLARATION#page3.tif

PATENT REEL: 033010 FRAME: 0505

SHINSUNG: IVX000133601

Attorney Docket No.:

ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT	
WHEREAS GOU, Ja-Seung	, hereinafter
referred to collectively as the assignor and inventor, has invented a	certain improvement relating to
SAR ANALOG-TO-DIGITAL CONVERTING	
METHOD THEREOF AND CMOS IMAGE SEI	NSOR INCLUDING THE SAME
[X] said application being attached hereto; [] said application having been filed in the United States Patent a, as Application Serial No	nd Trademark Office on and was amended
on	
[] the specification of which was filed under the Patent Cooperation Serial No, the United States of America bein	on Treaty on, g designated.
AND WHEREAS SK hynix Inc. and Industry-University Chercinafter referred to as the assignee or applicant, is desirous of application, including any and all divisions and continuations there which may be granted therefor, including any and all renewals, reis	equiring the entire right, title and interest in and to said of, and in and to said invention and any and all patents
NOW THIS WITNESSETH, that for and in considerat consideration paid by said assignee to said assignor, the receipt assigns, sells and transfers to said assignee, and said assignee's su interest in and to said application, including any and all divisions any and all patents which may be granted therefor, including any assignee, and said assignee's successors and assigns, to have, hold, all divisions and continuations thereof, and the said invention including any and all renewals, reissues and prolongations thereof anywise arising from or appertaining thereto, for and during the including any and all renewals, reissues and prolongations the assignee's successors and assigns, in as ample and beneficial an enjoyed the same, if this assignment had not been made.	ecessors and assigns, the full and exclusive right, title and and continuations thereof, and in and to said invention and and all renewals, reissues and prolongations thereof; said exercise and enjoy the said application, including any and and any and all patents which may be granted therefor, with all the rights, powers, privileges and advantages in term or terms of any and all such patents when granted, reof, for the use and benefit of said assignee, and said
AND said assignor hereby agrees to perform, upon the assigns, any and all acts relating to the obtaining or to the asserting and prolongations thereof.	request of said assignee, or said assignee's successors or g of said patents, including any and all renewals, reissues
AND said assignor authorizes and requests the Commissi said application, and on any and all divisions and continuations that assigns, in accordance herewith.	oner of Patents and Trademarks to issue Letters Patent on ereof, to said assignee, and said assignee's successors and
As an above-named inventor, I hereby declare that the a made by me, and that I am the original inventor or an original joint	bove-identified application was made or authorized to be inventor of a claimed invention in the application.
I hereby acknowledge that any willful false statement may by fine or imprisonment of not more than five (5) years, or both.	de in this declaration is punishable under 18 U.S.C. 1001
ASSIGNOR (INVENTOR):	
Signature:	rate: 2014 1 05 1 12
Printed or Typed Name: GOU, Ja-Seung	1
Page 1 of	1

SHINSUNG: IVX000133601 Attorney Docket No.: ___ ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT , hereinafter WHEREAS KWON, Oh-Kyong referred to collectively as the assignor and inventor, has invented a certain improvement relating to SAR ANALOG-TO-DIGITAL CONVERTING APPARATUS AND OPERATING METHOD THEREOF AND CMOS IMAGE SENSOR INCLDING THE SAME [X] said application being attached hereto; [] said application having been filed in the United States Patent and Trademark Office on amended ____, as Application Serial No. and _(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. and Industry-University Cooperation Foundation Hanyang University 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):

Page 1of 1

Printed or Typed Name: KWON, Oh-Kyong

SHINSUNG: IVX000133601

Attorney Docket No.:	
ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT	
WHEREAS KIM, Min-Kyu , hereinaf	ter
referred to collectively as the assignor and inventor, has invented a certain improvement relating to SAR ANALOG-TO-DIGITAL CONVERTING APPARATUS AND OPERATING	
METHOD THEREOF AND CMOS IMAGE SENSOR INCLUDING 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 amend	ded
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. and Industry-University Cooperation Foundation Hanyang University 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 valua	
consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged, said assignor here assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusive right, title a interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention a any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; sassignee, 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 theref including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when grant including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and sassignee's successors and assigns, in as ample and beneficial a manner as the said assignor might or could have held a enjoyed the same, if this assignment had not been made.	eby and aid aid or, in ed,
AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's successors assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissuand prolongations thereof.	or ies
AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors a assigns, in accordance herewith.	on nd
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
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 100 by fine or imprisonment of not more than five (5) years, or both.)1
ASSIGNOR (INVENTOR):	
Signature: Date:	

Page 1 of 1

Printed or Typed Name: KIM, Min-Kyu