#### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6640011

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
JEONG EUN SONG	03/31/2021
MIN SEOK SHIN	03/31/2021
YU JIN PARK	03/31/2021
SUNG UK SEO	03/31/2021
SUN YOUNG LEE	03/31/2021

#### **RECEIVING PARTY DATA**

Name:	SK HYNIX INC.	
Street Address:	2091, GYEONGCHUNG-DAERO, BUBAL-EUB, ICHEON-SI	
City:	GYEONGGI-DO	
State/Country:	KOREA, REPUBLIC OF	
Postal Code:	17336	

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	17222508

#### **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:** 5713275450

Email: ipntlaw@ipntlaw.com

Correspondent Name: IP & T GROUP LLP

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Address Line 2: SUITE 650

Address Line 4: VIENNA, VIRGINIA 22182

ATTORNEY DOCKET NUMBER:	P20H0224/US
NAME OF SUBMITTER:	JEONGSOOK YI
SIGNATURE:	/Jeongsook YI/
DATE SIGNED:	04/05/2021
	This document serves as an Oath/Declaration (37 CFR 1.63).

PATENT REEL: 055826 FRAME: 0452

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### **Total Attachments: 5** source=P20H0224US-Assignment#page1.tif source=P20H0224US-Assignment#page2.tif source=P20H0224US-Assignment#page3.tif

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**PATENT REEL: 055826 FRAME: 0453** 

Attorney Docket No.: SHINSUNG:IVX000145197(P20H0224/US)

# ASSIGNMENT OF AND DECLARATION (37 CFR 1.63) FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS Jeong Eun SONG , hereinafter referred to collectively as the assignor and inventor, has invented a
certain improvement relating to
MAGE SENSING DEVICE
[X] said application being attached hereto;  [I] said application having been filed in the United States Patent and Trademark Office on  [I] said application having been filed in the United States Patent and Trademark Office on  [I] said application Serial No
AND WHEREAS SK hynix Inc. of 2091, Gyeongchung-daero, Bubal-eub, Icheon-si, Gyeonggi-do, Republic of Korea, 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 (i.e. divisional, continuation, and continuation-in-part applications), and in and to said invention and improvements ("invention") and any and all patents which may be grante 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 an 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 it anywise arising from or appertaining thereto, for and duffing 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 an 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 cassigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissue and prolongations thereof.
AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent o said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors an 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. 100 by fine or imprisonment of not more than five (5) years, or both.
ASSIGNOR (INVENTOR):
Signature: 50% Date: 3/31/2021
Printed or Typed Name:
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Attorney Docket No.: SHINSUNG:IVX000145197(P20H0224/US)

# ASSIGNMENT OF AND DECLARATION (37 CFR 1.63) FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS Min Seok SHIN ,	hereinafter referred to collectively as the assignor and inventor, has invented a
certain improvement relating to	
IMAGE SENSING DEVICE	-
, as Application Serial No	United States Patent and Trademark Office on
Korea. hereinafter referred to as the assignee said application, including any and all divisi	2091, Gyeongchung-daero, Bubal-eub, Icheon-si, Gyeonggi-do, Republic of e or applicant, is desirous of acquiring the entire right, title and interest in and to ons and continuations thereof (i.e. divisional, continuation, and continuation-in-on and improvements ("invention") and any and all patents which may be granted sues and prolongations thereof;
consideration paid by said assignee to said assigns, sells and transfers to said assignee, interest in and to said application, including any and all patents which may be granted the assignee, and said assignee's successors and all divisions and continuations thereof, and including any and all renewals, reissues and anywise arising from or appertaining theret including any and all renewals, reissues as	for and in consideration of One Dollar (\$1.00), and other good and valuable assignor, the receipt of which is hereby acknowledged, said assignor hereby and said assignee's successors and assigns, the full and exclusive right, title and any and all divisions and continuations thereof, and in and to said invention and arerefor, including any and all renewals, reissues and prolongations thereof; said assigns, to have, hold, exercise and enjoy the said application, including any and the said invention and any and all patents which may be granted therefor prolongations thereof, with all the rights, powers, privileges and advantages in o, for and during the term or terms of any and all such patents when granted and prolongations thereof, for the use and benefit of said assignee, and said ple and beneficial a manner as the said assignor might or could have held and been made.
	to perform, upon the request of said assignee, or said assignee's successors of ining or to the asserting of said patents, including any and all renewals, reissues
	requests the Commissioner of Patents and Trademarks to issue Letters Patent or s and continuations thereof, to said assignee, and said assignee's successors and
	eby declare that the above-identified application was made or authorized to be ator or an original joint inventor of a claimed invention in the application.
I hereby acknowledge that any will by fine or imprisonment of not more than five	ful false statement made in this declaration is punishable under 18 U.S.C. 1000 re (5) years, or both.
ASSIGNOR (INVENTOR):	
Signature: GHIM MIN C	JEOK Date: 03.31.24
Printed or Typed Name: Min Seok SHIN	
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Attorney Docket No.: SHINSUNG:IVX000145197(P20H0224/US)

# ASSIGNMENT OF AND DECLARATION (37 CFR 1.63) FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS Yu Jin PARK , hereinafter referred to collectively as the assignor and inventor, has invented a
certain improvement relating to
IMAGE SENSING DEVICE
[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
AND WHEREAS SK hynix Inc. of 2091, Gyeongchung-daero, Bubal-eub, Icheon-si, Gyeonggi-do, Republic of Korea. 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 (i.e. divisional, continuation, and continuation-in-part applications), and in and to said invention and improvements ("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):  Signature: Date: 3/31/2024
Printed or Typed Name: Yu Jin PARK

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Attorney Docket No.: SHINSUNG:IVX000145197(P20H0224/US)

### ASSIGNMENT OF AND DECLARATION (37 CFR 1.63) FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS Sung Uk SEO , hereinafter referred to collectively as the assignor and inventor, has invented a
certain improvement relating to
MAGE SENSING DEVICE
[X] said application being attached hereto;  [] said application having been filed in the United States Patent and Trademark Office on
AND WHEREAS SK hynix Inc. of 2091, Gyeongchung-daero, Bubal-eub, Icheon-si, Gyeonggi-do. Republic of Korea. hereinafter referred to as the assignee or applicant, is desirous of acquiring the entire right, title and interest in and t said application, including any and all divisions and continuations thereof (i.e. divisional, continuation, and continuation-in part applications), and in and to said invention and improvements ("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 valuab 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 are interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention are 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 anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when grante including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and satisfices successors and assigns, in as ample and beneficial a manner as the said assignor might or could have held are 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 assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissuand prolongations thereof.
AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent of said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors are assigns, in accordance herewith.
As an above-named inventor, I hereby declare that the above-identified application was made or authorized to I nade 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. 100 by fine or imprisonment of not more than five (5) years, or both.
ASSIGNOR (INVENTOR):
Signature: Seo Emp Wk Date:
Printed or Typed Name: Sung Uk SEO
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SKhynix

### ASSIGNMENT OF AND DECLARATION (37 CFR 1.63) FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS Sun Young LEE, hereinafter referred to collectively as the assignor and inventor, has invented a
certain improvement relating to
IMAGE SENSING DEVICE
[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. of 2091, Gyeongchung-daero, Bubal-eub, Icheon-si, Gyeonggi-do, Republic of Korea, 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 (i.e. divisional, continuation, and continuation-in-part applications), and in and to said invention and improvements ("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 an interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention an 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 an 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 any units and 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 an 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 of assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissue and prolongations thereof.
AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent o said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors an assigns, in accordance herewith.
As an above-named inventor, I hereby declare that the above-identified application was made or authorized to b 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. 100 by fine or imprisonment of not more than five (5) years, or both.
ASSIGNOR (INVENTOR):
Signature:
Printed or Typed Name: Sun Young LEE

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