

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5668208

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
KYOUNG-IN LEE	07/01/2019
MIN-SU CHO	07/01/2019
SUNG-WOOK CHO	07/01/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SK HYNIX INC.
<b>Street Address:</b>	2091, GYEONGCHUNG-DAERO
<b>Internal Address:</b>	BUBAL-EUB, GYEONGGI-DO
<b>City:</b>	ICHEON-SI
<b>State/Country:</b>	KOREA, REPUBLIC OF
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16540419
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>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.</i>	
<b>Email:</b>	mbright@perkinscoie.com
<b>Correspondent Name:</b>	BING AI
<b>Address Line 1:</b>	PERKINS COIE LLP
<b>Address Line 2:</b>	PO BOX 1247
<b>Address Line 4:</b>	SEATTLE, WASHINGTON 98111-1247
<b>ATTORNEY DOCKET NUMBER:</b>	088453-8201.US00
<b>NAME OF SUBMITTER:</b>	MEGHAN BRIGHT
<b>SIGNATURE:</b>	/Meghan Bright/
<b>DATE SIGNED:</b>	08/14/2019
	This document serves as an Oath/Declaration (37 CFR 1.63).
<b>Total Attachments: 9</b>	
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source=P18H0247US\_Executed Assignments (Hynix)#page9.tif

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:  
Kyoung-In Lee et al.

Application No.: Not Yet Assigned

Filed: Herewith

For: IMAGE SENSOR HAVING TWO-COLORED  
COLOR FILTERS SHARING ONE PHOTODIODE

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**DECLARATION AND ASSIGNMENT BY THE INVENTOR**  
**UNDER RULE 37 C.F.R. § 1.63 EFFECTIVE ON SEPTEMBER 16, 2012**

I, Kyoung-In Lee, of Icheon-si, Korea, hereby declare that:

I believe I am the sole original inventor or an original joint inventor of a claimed invention in a patent application entitled:

**IMAGE SENSOR HAVING TWO-COLORED COLOR FILTERS SHARING ONE  
PHOTODIODE**

the specification of which is attached hereto and identified as Attorney Docket No. 088453-8201.US00, which claims the priority and benefits of Korean Patent Application No. 10-2018-0132181 filed on October 31, 2018.

I believe the following persons are additional original joint inventors of the above-identified patent application:

Min-Su Cho, of Icheon-si, Korea;

Sung-Wook Cho, of Icheon-si, Korea; and

Yun-Kyung Kim, of Busan, Korea.

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Inventor : Kyoung-In Lee et al.  
Appl. No. : Not Yet Assigned  
Filed : Herewith  
Page : 2 of 3

Docket No.: 088453-8201.US00

The above-identified application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified patent application including the claims.

I am aware of the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

I hereby acknowledge that any willful false statement made in the above declaration is punishable under 18 USC §1001 by fine or imprisonment of not more than five (5) years, or both.

#### ASSIGNMENT

I hereby assign to SK hynix Inc., a corporation of Republic of Korea, having a place of business at 2091, Gyeongchung-daero, Bubal-eub, Icheon-si, Gyeonggi-Do, Republic of Korea, and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in any and all inventions and improvements which are described in the following applications:

1. U.S. Patent Application entitled *IMAGE SENSOR HAVING TWO-COLORED COLOR FILTERS SHARING ONE PHOTODIODE*, filed on August 14, 2019, and assigned U.S. Application Number 16/540,419 (I authorize and request an attorney appointed in said application to hereafter insert above the filing date and application number of the above application when known); and

2. Korean Patent Application No. 10-2018-0132181 filed on October 31, 2018.

This assignment includes the entire right, title and interest in said applications, all legal equivalents thereof in any country, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions and improvements, including, but not limited to, all divisions, continuations, reissues, reexamination certificates, any and all certificates issued in any post-grant proceeding, and extensions of said applications and patents of the United States, foreign patents, utility models, and design registrations, and the right to claim priority based on the filing date of each of said applications under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes, and the right to seek relief and recover all damages, including, but not limited to, a reasonable royalty, by reason of infringement or any other violation of patent or patent application rights. I authorize the

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Inventor : Kyoung-In Lee et al.  
Appl. No. : Not Yet Assigned  
Filed : Herewith  
Page : 3 of 3

Docket No.: 088453-8201.US00

Assignee to apply in all countries in my name or in the name of the Assignee for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements.

The foregoing assignments, sale and transfer have been made for good and valuable consideration, the receipt of which is hereby acknowledged.

I hereby represent and covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into that would conflict with the assignment of said inventions and improvements to the Assignee.

I further covenant for myself and my respective heirs, legal representatives and assigns, to assist the Assignee in handling various procedures, tasks and documentation in connection with this assignment, including, but not limited to, providing to the Assignee promptly upon the request of the Assignee all pertinent facts and documents relating to said invention and improvements, and said patents, said legal equivalents or other legal instrument as may be known and accessible to me and testifying as to the same in any interference, litigation, or proceeding relating thereto, and promptly executing and delivering to the Assignee or its legal representative any and all papers, documents, instruments or affidavits in connection with obtaining, maintaining, issuing or enforcing said application, said inventions and improvements, and said patents, said equivalents and other legal instrument which may be necessary or desirable to carry out the purposes thereof.

I am competent to execute the above declaration and assignment. I hereby have duly executed the declaration and assignment below with my name.

Full name of inventor: Kyoung-In Lee

Inventor's signature: Kyoung-In Lee

Date: 1st July 2017

Perkins Coie LLP  
P.O. Box 1247  
Seattle, Washington 98111-1247  
Telephone: (858) 720-5700  
Facsimile: (206) 359-7198

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Application No.: Not Yet Assigned

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Alexandria, VA 22313-1450

**DECLARATION AND ASSIGNMENT BY THE INVENTOR  
UNDER RULE 37 C.F.R. § 1.63 EFFECTIVE ON SEPTEMBER 16, 2012**

I, Min-Su Cho, of Icheon-si, Korea, hereby declare that:

I believe I am the sole original inventor or an original joint inventor of a claimed invention in a patent application entitled:

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Inventor : Kyoung-in Lee et al.  
Appl. No. : Not Yet Assigned  
Filed : Herewith  
Page : 3 of 3

Docket No.: 088453-8201.US00

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I further covenant for myself and my respective heirs, legal representatives and assigns, to assist the Assignee in handling various procedures, tasks and documentation in connection with this assignment, including, but not limited to, providing to the Assignee promptly upon the request of the Assignee all pertinent facts and documents relating to said invention and improvements, and said patents, said legal equivalents or other legal instrument as may be known and accessible to me and testifying as to the same in any interference, litigation, or proceeding relating thereto, and promptly executing and delivering to the Assignee or its legal representative any and all papers, documents, instruments or affidavits in connection with obtaining, maintaining, issuing or enforcing said application, said inventions and improvements, and said patents, said equivalents and other legal instrument which may be necessary or desirable to carry out the purposes thereof.

I am competent to execute the above declaration and assignment. I hereby have duly executed the declaration and assignment below with my name.

Full name of inventor: Min-Su Cho

Inventor's signature: Min-su Cho

Date: 1st July 2019

Perkins Coie LLP  
P.O. Box 1247  
Seattle, Washington 98111-1247  
Telephone: (858) 720-5700  
Facsimile: (206) 359-7198

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Alexandria, VA 22313-1450

**DECLARATION AND ASSIGNMENT BY THE INVENTOR  
UNDER RULE 37 C.F.R. § 1.63 EFFECTIVE ON SEPTEMBER 16, 2012**

I, Sung-Wook Cho, of Icheon-si, Korea, hereby declare that:

I believe I am the sole original inventor or an original joint inventor of a claimed invention in a patent application entitled:

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PHOTODIODE**

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I am competent to execute the above declaration and assignment. I hereby have duly executed the declaration and assignment below with my name.

Full name of inventor: Sung-Wook Cho

Inventor's signature: Sung Wook Cho

Date: 12 July 2011

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