### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5558150

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
DEOK KI HWANG	05/27/2019
JAE HUN JEONG	05/27/2019
KI BUM SUNG	05/27/2019
SANG JUN PARK	05/29/2019
TAE YONG LEE	05/30/2019
YONG HAN JEON	05/29/2019

### **RECEIVING PARTY DATA**

Name:	LG INNOTEK CO., LTD.
Street Address:	98, HUAM-RO, JUNG-GU
City:	SEOUL
State/Country:	KOREA, REPUBLIC OF
Postal Code:	04637

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

Property Type	Number	
Application Number:	16466953	

### **CORRESPONDENCE DATA**

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mailroom@bskb.com, brian.olive@bskb.com Email: BIRCH STEWART KOLASCH & BIRCH LLP **Correspondent Name:** 

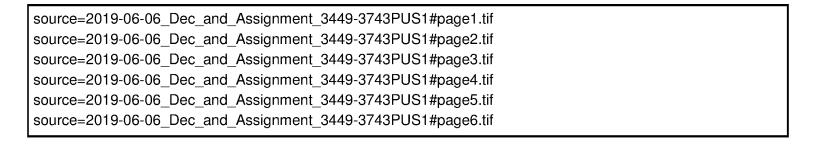
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ATTORNEY DOCKET NUMBER:	3449-3743PUS1
NAME OF SUBMITTER:	BRIAN OLIVE
SIGNATURE:	/brian olive/
DATE SIGNED:	06/06/2019

**Total Attachments: 6** 

**PATENT** REEL: 049388 FRAME: 0923



PATENT REEL: 049388 FRAME: 0924

Attorney Docket No. P2017-C0223US

### BIRCH, STEWART, KOLASCH & BIRCH, LLP

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### DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

UNITED STATES PATENT RIGHTS, OR UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

SEMICONDUCTOR DEVICE, SEMICONDUCTOR DEVICE MANUFACTURING METHOD AND SENSING DEVICE As a below named inventor (hereinafter designated as the undersigned), I hereby declare that: Application not This declaration is directed to the application attached hereto. If the application is not attached hereto, Attached the application is as identified by the attorney docket number as set forth above and/or the following: Enter Appln. No. ⇒ United States Application Number or PCT International Appln. No. PCT/KR2017/014100 filed December 04, 2017 The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed invention in the application. I have reviewed and understand the contents of the above-identified application, including the claims. I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations § 1.56. WHEREAS, the undersigned has invented certain new and useful improvements described in the application identified. Insert Name WHEREAS, LG INNOTEK CO., LTD. of Assignee Insert Address 98, Huam-ro, Jung-gu, Seoul, 04637, Republic of Korea

Patent(s) that may be granted therefor in the United States of America and

Check Box if Appropriate 

in any foreign countries.

of Assignee

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has sold, assigned and transferred, and by these presents does (do) sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters

PATENT REEL: 049388 FRAME: 0925

2019/05/27 월덕기 LG이노텍/x.x.x.157 촬덕기

The undersigned agrees to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letters Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agrees to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of (a) valid United States of America patent(s) or a grant of (a) valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorizes and requests the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patent(s) resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has the full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grants the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

The undersigned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

The undersigned hereby acknowledges 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.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

Inventor's Name ⇒	Inventor: HWANG, Deok Ki	Date:	May . 27, 2019
Inventor's Signature ⇔	Signature: \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	·	J

An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use a separate form for each inventor; or check the box below and complete the attached page(s) to list additional inventors.

Additional inventors are being named on the 1 supplemental sheet(s) attached hereto.

LEGAL NAME OF INVENTOR

# SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

### ADDITIONAL INVENTOR(S) Supplemental Sheet Page $\underline{1}$ of $\underline{1}$

	LEGAL NA	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇒ Inventor:	JEONG, Jae Hun	Date:	5/27/2019
Inventor's Signature	⇒ Signature:	mmy		·
	LEGAL NA	MME OF JOINT INVENTOR, IF ANY		
		·	_	t/ - /2018
		SUNG, Ki Bum	Date:	t/27/2019
Inventor's Signature	⇒ Signature: -			
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	PARK, Sang Jun	Date:	
Inventor's Signature	⇔Signature:			
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	LEE, Tae Yong	Date:	
Inventor's Signature	⇔Signature:			
	LEGAL NA	ME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	JEON, Yong Han	Date:	
Inventor's Signature	⇔Signature:			
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:		Date:	
Inventor's Signature	⇔Signature:			
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Inventor's Name	⇒Inventor:		Date:	
Inventor's Signature	⇒Signature:			
		AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇒Inventor:		Date:	
			Date	
Inventor's Signature	⇒Signature:			

# SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

## ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1

	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇒ Inventor:	JEONG, Jae Hun	Date:
Inventor's Signature	⇒ Signature:		
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇒ Inventor:	SUNG, Ki Bum	Date:
Inventor's Signature	⇒ Signature:		
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	PARK, Sang Jun	Date: May 29, 20/9
Inventor's Signature	⇔Signature:	Pork Song Jun	·
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	LEE, Tae Yong	Date:
Inventor's Signature	⇔Signature:		
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	JEON, Yong Han	Date:
Inventor's Signature	⇔Signature:		
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	***************************************	Date:
Inventor's Signature	⇔Signature:		
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	<sup>⇔</sup> Inventor:		Date:
Inventor's Signature	⇔Signature:		
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:		Date:
Inventor's Signature	⇔Signature:		

PATENT BSKB-DECASSIGN\(09-12)

**REEL: 049388 FRAME: 0928** 

### SUPPLEMENTAL SHEET FOR **DECLARATION AND ASSIGNMENT**

### ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1

LEGAL NAME OF JOINT INVENTOR, IF ANY

Inventor's Name	⇒ Inventor:	JEONG, Jae Hun	Date:	
Inventor's Signature	⇒ Signature:			
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇒ Inventor:	SUNG, Ki Bum	Date:	
Inventor's Signature	⇒ Signature:			
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	PARK, Sang Jun	Date:	
Inventor's Signature	⇔Signature;			
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇒Inventor:	LEE, Tae Yong	Date:	•
Inventor's Signature	⇒Signature:	0/24%		
		AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇒Inventor:	JEON, Yong Han	Date:	
Inventor's Signature	⇒Signature:			
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor.		Date:	
Inventor's Signature	⇔Signature:			
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Inventor's Name	⇔Inventor:		Date:	
Inventor's Signature	⇔Signature:			
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:		Date;	
Inventor's Signature	⇒Signature:			

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# SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

### ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1

LEGAL NAME OF JOINT INVENTOR, IF ANY

Inventor's Name	⇒ Inventor:	JEONG, Jae Hun	Date:
Inventor's Signature	⇒ Signature:		
	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔ Inventor:	SUNG, Ki Bum	Date:
Inventor's Signature	⇒ Signature:		
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	PARK, Sang Jun	Date:
Inventor's Signature	⇔Signature:	· · · · · · · · · · · · · · · · · · ·	
	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	LEE, Tae Yong	Date:
Inventor's Signature	⇒Signature:		
	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇒Inventor:	JEON, Yong Han	Date: 2019.05.29
Inventor's Signature	⇔Signature:		
	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	•	Date:
Inventor's Signature	⇒Signature;		
	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇒Inventor:	-	Date:
Inventor's Signature	⇒Signature:		
	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:		Date:
Inventor's Signature	⇔Signature:		