504892313 04/30/2018

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4939056

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
BONCHANG HWANG	04/20/2018
BEOMSOO SEO	04/20/2018
JIHYE OH	04/20/2018

RECEIVING PARTY DATA

Name:	LG ELECTRONICS INC.
Street Address:	128, YEOUI-DAERO, YEONGDEUNGPO-GU
City:	SEOUL
State/Country:	KOREA, REPUBLIC OF
Postal Code:	07336

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	15003231	

CORRESPONDENCE DATA

Fax Number: (703)205-8050

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.

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BIRCH STEWART KOLASCH & BIRCH LLP Correspondent Name: Address Line 1: 8110 GATEHOUSE ROAD, SUITE 100 EAST Address Line 4: FALLS CHURCH, VIRGINIA 22042-1248

ATTORNEY DOCKET NUMBER:	2832-0787PUS1
NAME OF SUBMITTER:	BRIAN MUKURIA
SIGNATURE:	/Brian Mukuria/
DATE SIGNED:	04/30/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

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PATENT REEL: 045672 FRAME: 0029 504892313

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

	Continugation
	As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:
	This declaration is directed to the application attached hereto.
Application not Attached	If the application is not attached hereto, the application is as identified by the attorney docket number a set forth above and/or the following:
Enter Appln. No.	♥ United States Application Number or PCT International Appln. No. 15/003,231
Enter Filing Date	⇒ filed on _January 21, 2016
	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 th 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 thapplication identified.
Insert Name of Assignee	⇒ WHEREAS, LG ELECTRONICS INC.
Insert Address of Assignee	⇔ of 128, Yeoui-daero, Yeongdeungpo-gu, Seoul, 150-721, Republic of Korea
.	its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirou of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s that may be granted therefor in the United States of America and
Check Box if Appropriate	in any foreign countries.

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.

> Page 1 BSKB-DECASSIGN(09-12)

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 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.

LEGAL NAME OF INVENTOR

Inventor's Name	₽	Inventor:	Bonchang Hwang	Date: 04/20/2018
Inventor's Signature	=>	Signature:	16 256	
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 attached hereto.

Page 2

BSKB-DECASSIGN-SINGLE (09-12)

SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

ADDITIONAL INVENTORSSupplemental Sheet Page 1 of 1

LEGAL NAME OF JOINT INVENTOR, IF ANY

Inventor's Name	Inventor: Beomsoo Seo	Date: 04/20/2018
Inventor's Signature	Signature: B. S. Seo	
	LEGAL NAME OF JOINT INVENTOR, IF ANY	
Inventor's Name	Inventor: Jihye Oh	Date: 04/20/2018
Inventor's Signature	signature: Ithye oh	A MARKET THE STATE OF THE STATE
	LEGAL NAME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	Date:
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Inventor's Name	⇔Inventor:	Date:
Inventor's Signature	⇔Signature:	
	LEGAL NAME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇒Inventor:	Date:
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Inventor's Name	⇔Inventor:	Date:
Inventor's Signature	⇒Signature:	
	LEGAL NAME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇒Inventor:	Date:
Inventor's Signature	⇔Signature:	
	LEGAL NAME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇒Inventor:	Date:
Inventor's Signature	⇔Signature:	

BIRCH, STEWART, KOLASCH & BIRCH, LLP

RECORDED: 04/30/2018

BSKB-SUPPL-SIGANTURES(09-12)

PATENT REEL: 045672 FRAME: 0032