PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Kuznetsov VASSILY	11/16/2017
Hyojung OH	12/21/2017
Minjae PARK	12/21/2017

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:	15855110

CORRESPONDENCE DATA

Fax Number: (877)769-7945

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: 858-678-4364 Email: apsi@fr.com **Correspondent Name:** DANIEL Y. LEE

Address Line 1: FISH & RICHARDSON P.C.

Address Line 2: P.O.BOX 1022

Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

ATTORNEY DOCKET NUMBER: 20172-0215001 NAME OF SUBMITTER: AMANDA PETERSEN SIGNATURE: /Amanda Petersen/ **DATE SIGNED:** 06/04/2018

Total Attachments: 2

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> **PATENT** REEL: 045981 FRAME: 0725

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Attorney Docket No.: 20172-0215001 / PA/LGE/VND/17405/US; 16FVND011US01

ASSIGNMENT

For valuable consideration, the receipt of which we acknowledge, and intending to be bound legally, we, KUZNETSOV VASSILY, HYOJUNG OH, and MINJAE PARK, each individually assign to LGE ELECTRONICS INC, a corporation formed under the laws of Republic of Korea, and having a principal place of business at 128, <a href="Yeoui-daero, Yeoung-deungpo-gu, <a href="Seoul 07336 Republic of Korea, and its successors, transferees, and assignees (collectively the "Assignee"), all of our individual and joint right, title, and interest throughout the world in the subject matter (the "Subject Matter") of a patent application that names us as inventors, is titled "INPUT/OUTPUT DEVICE," and was filed in the United States Patent and Trademark Office on December 27, 2017, as application 15/855,110 (the "Application"). We authorize the insertion of the filing date and application number above.

This Assignment assigns (a) the Application and all other applications that may be made for, and all patents, utility models, design registrations, and other rights of exclusion and inventors' certificates for, any of the Subject Matter (collectively the "Applications and Granted Rights") in every country or region, (b) the right to claim priority based on and the benefit of the filing date of any of the Applications and Granted Rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other applicable treaties or conventions, and (c) the right to pursue, collect, and retain in the Assignee's name or otherwise, damages and any other remedies arising from any past, present, or future infringement of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment.

We authorize the Assignee to apply for and pursue protection for any or all of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment in all countries, regions, and territories of the world, in our names or in the Assignee's name.

We represent and warrant that we have the right and power to make this Assignment and that we have not made and will not make any other assignment that conflicts with this Assignment.

We will communicate to the Assignee (or at the request of the Assignee to other parties) all known facts in any form relating to the Subject Matter, will execute and provide all oaths and

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declarations, statements, testimony, assignments, powers of attorney, applications, and documents, and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

Kuznetsov VASSILY

Date: 16. November 2017

Hyojung OH

Date: 2017. 12.21

Miniae PARK

Date: 2019. 12.21

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