01/22/2020 505875785

# PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE:      | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT     |

#### **CONVEYING PARTY DATA**

| Name          | Execution Date |
|---------------|----------------|
| SOONGKEUN LEE | 12/10/2019     |
| CHUNGILL LEE  | 12/09/2019     |
| SEONWOOK PARK | 12/10/2019     |
| SUNGWOO BAE   | 12/09/2019     |
| JAEJUNG YUN   | 12/09/2019     |
| JEONGTAE KIM  | 12/09/2019     |
| YOUNGGEUN LEE | 12/09/2019     |

### **RECEIVING PARTY DATA**

| Name:                    | LG ELECTRONICS INC.   |
|--------------------------|---|
| Street Address:          | 128, YEOUI-DAERO, YEONGDEUNGPO-GU   |
| City:                    | SEOUL   |
| State/Country:           | KOREA, REPUBLIC OF  |
| Postal Code:             | 07336   |
|                          |   |
| Name:                    | RESEARCH COOPERATION FOUNDATION OF YEUNGNAM UNIVERSITY                            |
| Name:<br>Street Address: | RESEARCH COOPERATION FOUNDATION OF YEUNGNAM UNIVERSITY 280 DAEHAK-RO, GYONGSAN-SI |
|                          |   |
| Street Address:          | 280 DAEHAK-RO, GYONGSAN-SI  |

## **PROPERTY NUMBERS Total: 1**

| Property Type       | Number   |  |  |  |  |
|---------------------|----------|--|--|--|--|
| Application Number: | 15800900 |  |  |  |  |

### CORRESPONDENCE DATA

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REEL: 051582 FRAME: 0684 505875785

PATENT

| ATTORNEY DOCKET NUMBER:                          | PBC-0572.02       |
|--|-------------------|
| NAME OF SUBMITTER:                               | DAVID D. NELSON   |
| SIGNATURE:                                       | /David D. Nelson/ |
| DATE SIGNED:                                     | 01/22/2020        |
| Total Attachments: 2 source=Assignment#page1.tif |                   |

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> PATENT REEL: 051582 FRAME: 0685

Docket No.: PBC-0572.02

#### **ASSIGNMENT**

| In             | consideration    | of the  | premises | and    | other | good   | and | valuable | consideration | in | hand | paid, | the | receipt | and |
|----------------|------------------|---------|----------|--------|-------|--------|-----|----------|---------------|----|------|-------|-----|---------|-----|
| sufficiency of | of which is here | eby ack | nowledge | I, the | under | signec | ł,  |          |               |    |      | -     |     | _       |     |

| (1) | Soongkeun LEE | (5) | Jaejung YUN   |
|-----|---------------|-----|---------------|
| (2) | Chungill LEE  | (6) | Jeongtae KIM  |
| (3) | Seonwook PARK | (7) | Younggeun LEE |
| (4) | Sungwoo BAE   |     |               |

who have made a certain new and useful invention, hereby sell, assign and transfer unto

# LG ELECTRONICS INC. 128, Yeoui-daero, Yeongdeungpo-gu Seoul, 07336, Republic of Korea

AND

# RESEARCH COOPERATION FOUNDATION OF YEUNGNAM UNIVERSITY 280 Daehak-ro, Gyongsan-Si Gyungsangbuk-do, 38541, Republic of Korea

its successors and assigns (hereinafter designated "ASSIGNEE") the entire right, title and interest for the United States of America as defined in 35 U.S.C. 100 in the invention entitled

#### HOME APPLIANCE

| (a) for which an application for United States Letters Patent was filed on November 1, 2017, and identified by United States Serial No. 15/800,900; or  |
|---|
| (b) for which an application for United States Letters Patent was executed on,  |
| and the undersigned hereby authorize and request the United States Commissioner of Patents and Trademarks to issue any and all United States Letters Patent which may be granted therefor and/or that claim priority thereto and any and all extensions, divisions, reissues, substitutes, renewals, continuations, or continuations-in-part thereof and/or that claim priority thereto, and the right to all benefits under the International Convention for the Protection of Industrial Property to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned agree that the attorneys of record in said application shall hereafter act on behalf of said ASSIGNEE; |

AND the undersigned hereby agree to transfer a like interest, and to render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, upon request of the said ASSIGNEE, its successors, assigns and legal representatives, and without further remuneration, in and to any improvements, and applications for patent based thereon, growing out of or related to the said invention; and to execute any papers by the said ASSIGNEE, its successors, assigns and legal representatives, deemed essential to ASSIGNEE's full protection and title in and to the invention hereby transferred.

AND the undersigned hereby grants the firm of KED & ASSOCIATES, LLP the power to insert on this assignment any further identification that may be necessary or desirable in order to comply with the rules of any issuing authority, including the United States Patent and Trademark Office, for recordation of this document.

SIGNED on the dates indicated aside our signatures:

| INVENTORS           | DATE SIGNED  |
|---------------------|--------------|
| 1) 0 52             | 12 (e. 2019  |
| Name: Soongkeun LEE |              |
| 2) Chigill cee      | Der. 9. 2019 |
| Name: Chungill LEE  |              |
| 3) Dave S.W         | D. 10. 19    |
| Name: Seonwook PARK | <b>'.</b>    |

PATENT REEL: 051582 FRAME: 0686

| 4) | 97 43g              | 12, 9, 2019 |
|----|---------------------|-------------|
|    | Name: Sungwoo BAE   |             |
| 5) | Gy 2n 3             | 12.9, 2019  |
|    | Name: Jaejung YUN   | •           |
| 6) | 71 % By             | 12-9, 2019  |
|    | Name: Jeongtae KIM  |             |
| 7) |                     | 12-9. 2013  |
|    | Name: Younggeun LEE | •           |

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**RECORDED: 01/22/2020**