505739436 10/24/2019

EPAS ID: PAT5786249

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

SUBMISSION TYPE:NEW ASSIGNMENTNATURE OF CONVEYANCE:ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Daesung HWANG	07/18/2018
Yunjung YI	07/18/2018
Hyunho LEE	07/18/2018

RECEIVING PARTY DATA

Name:	LG Electronics Inc.	
Street Address:	128, Yeoui-daero, Yeongdeungpo-gu Seoul 07336	
Internal Address:	Republic of Korea	
City:	Seoul	
State/Country: Republic of Korea		
Postal Code:	07336	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16259580

CORRESPONDENCE DATA

Fax Number: (877)769-7945

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Email: apsi@fr.com, andersen@fr.com

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Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

ATTORNEY DOCKET NUMBER:	21613-0155002
NAME OF SUBMITTER:	MELISSA ANDERSEN
SIGNATURE:	/Melissa Andersen/
DATE SIGNED:	10/24/2019

Total Attachments: 3

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PATENT 505739436 REEL: 050816 FRAME: 0119

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PATENT REEL: 050816 FRAME: 0120

ASSIGNMENT

For valuable consideration, the receipt of which we acknowledge, and intending to be bound legally, we, <u>DAESUNG HWANG</u>, <u>YUNJUNG YI</u> and <u>HYUNHO LEE</u>, each individually assign to <u>LG ELECTRONICS INC</u>, a corporation formed under the laws of <u>Republic of Korea</u>, and having a principal place of business at <u>128</u>, <u>Yeoui-daero</u>, <u>Yeongdeungpo gu</u>, <u>Seoul 07336</u>

<u>Republic of Korea</u>, 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 "<u>METHOD</u>

<u>FOR TRANSMITTING UPLINK CONTROL CHANNEL AND USER EQUIPMENT FOR</u>

<u>PERFORMING SAME</u>" and was filed in the United States Patent and Trademark Office on, as application <u>16/064,838</u> (the "Application").

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 declarations, statements, testimony, assignments, powers of attorney, applications, and

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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.

12	Date: 2018.07, 18
Daesung HWANG	Date.
Witnessed by:	A. Y
Signature: 400000	Date: July 31, 2018
Print Name: HYOHTM PARK	,
Signature:	Date: 2018, 7, 31
Print Name: Eurlyse JO	
// <i>/</i> //	Date: 2018 9. 8
Yunjuge YI	Date://
Witnessed by:	
Signature: Mann	Date: July 31,2018
Print Name: HOFTIM PARK	
Signature:	Date: 2018.7.3/

Print Name: Eunhye JO

Assignment Page 2 of 3

Witnessed by:	magen & constant
Signature: MOTON	Date: July 31, 2018
Print Name: HYOFTM PARK	
Signature:	Date: 2018.17.7/
rint Name: Eurlye JO	

Signature: <u>유</u>수천 Date: <u>20/8 - 0 17.3/</u>

Name: Joohyun Yu
Title: Manager

Assignce: LG ELECTRONICS INC.

RECORDED: 10/24/2019

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