10/11/2018 505136427

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5183190

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HYUNBYUNG CHA	10/24/2017
BYUNGSOO KIM	10/24/2017
YOOSEOK KIM	10/24/2017
TAEHO KIM	10/24/2017
JEONGROK LEE	10/24/2017
DEUNG HWANGBO	10/24/2017

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:	35504851	

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.

Phone: 7032058000

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

P.O. BOX 747 Address Line 1:

Address Line 4: FALLS CHURCH, VIRGINIA 22042

ATTORNEY DOCKET NUMBER:	0465-6736PUS1
NAME OF SUBMITTER:	BRIAN OLIVE
SIGNATURE:	/brian olive/
DATE SIGNED:	10/11/2018

Total Attachments: 2

PATENT REEL: 047131 FRAME: 0381

505136427

source=2018-10-11_Assignment_0465-6736PUS1#page1.tif source=2018-10-11_Assignment_0465-6736PUS1#page2.tif

> PATENT REEL: 047131 FRAME: 0382

BIRCH, STEWART, KOLASCH & BIRCH, LLP

United States Patent Rights, or United States Plus all Foreign Patent Rights

ASSIGNMENT

Application	35/504,851	Filed:	November 3, 2017
	"(Given Name FAM) WHEREAS,		
inventor(s)	(hereinalter designate	d as the unders	signed) has (have) invented certain new and useful improvements in:
Insert Title of Invention	TELEVISION REC	EIVER	
			ers Patent of the United States of America has been executed by the provisional application)
lesert Date of Signing of Appin	on October 24,	2017	j and
Insert Name of Assigner	WHEREAS, LG Elect	conics Inc.	
Insert Address of Assignee	of 128, Yeoui-daero, Y	(eongdeungpo-	-gu, Seoul, 07336, Republic of Korea,
v		ight, title and it	atives and assigns (hereinafter designated as the Assignee) is desirous of nterest in and to said invention and in and to any Letters Patent(s) that may ates of America and
Check Box if Appropriate	in any foreign o	nuntries.	
	undersigned has (har unto said Assignee territories, dependen Patent(s) which may possessions, and if ti	re) sold, assigne the full and ex- cles and posses be granted the se box above is	valuable consideration, the receipt of which is hereby acknowledged, the ed and transferred, and by these presents does (do) sell, assign and transfer aclusive right to the said invention in the United States of America, its sections and the entire right, title and interest in and to any and all Letters herefor in the United States of America, its territories, dependencies and designated, in any and all foreign countries; and to any and all divisions, and extensions thereof for the full term or terms for which the same may

<OrgName>

Page 1

BSKB-ASSIGN-SINGLE (09-12) JTE/cdr

Attorney Docket No. 0465-6736PUS1

The undersigned agree(s) 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 agree(s) 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 agree(s) 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 agree(s) 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 authorize(s) and request(s) 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 (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this Assignment, in witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s)

Date 14, OCT 701 Name of Inventor	Signature) Hyunbyung CHA	
Date 24. Oct. 30 [1] Name of Inventor	(Signature) Byungsoo KIM	
Date 24, Oct. 2017 Name of Inventor	(Signature) Yooseok KIM	
Date 24, oct, 2019 Name of inventor	(Signature) Taeho KIM	
Date 24.0cf.2011) Name of Inventor	(Signature) Jeongrok LEE	
Date A Oct 2011 Name of Inventor	(Signature) Deung HWANGEO	<u>*</u>
<orgname></orgname>	Page 2	85KB-A55KN-SINGLE (09-12)

PATENT 2017-10-21 09 05 REEL: 047131 FRAME: 0384

<RSP>/<WRIC>/susr>

RECORDED: 10/11/2018