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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4093131

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SEJIN OH	10/10/2016
WOOSUK KO	10/10/2016
WOOSUK KWON	10/09/2016
JANGWON LEE	10/09/2016
SUNGRYONG HONG	10/10/2016
KYOUNGSOO MOON	10/10/2016

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:	15303448

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: (703) 205-8000

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

Address Line 1: P.O. BOX 747

Address Line 4: FALLS CHURCH, VIRGINIA 22040-0747

ATTORNEY DOCKET NUMBER:	3449-2841PUS1
NAME OF SUBMITTER:	BRIAN OLIVE
SIGNATURE:	/brian olive/
DATE SIGNED:	10/12/2016

Total Attachments: 5

PATENT REEL: 039995 FRAME: 0001

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> PATENT REEL: 039995 FRAME: 0002

BIRCH, STEWART, KOLASCH & BIRCH, LLP

P.O. Box 747 • Falls Church, Virginia 22040-0747

Telephone: (703) 205-8000 • Facsimile: (703) 205-8050 • Email: mailroom@bskb.com

DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

UNITED STATES PATENT RIGHTS, OR UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

,	
Title of Invention	* BROADCAST TRANSMISSION DEVICE, BROADCAST RECEPTION DEVICE, OPERATING METHOD OF BROADCAST TRANSMISSION DEVICE, AND OPERATING METHOD OF BROADCAST RECEPTION DEVICE
	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 as set forth above and/or the following:
Enter Applin, No.	United States Application Number or PCT International Appln. No. PCT/KR2015/003583

Enter Filing Date

illed on April 9, 2015

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 the 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 the application identified.

Insert Name of Assignce

WHEREAS, LG ELECTRONICS INC.

Insert Address of Assignee

of 128, Yeoui-daero, Yeongdeungpo-gu, Seoul 07336, Republic of Korea,

its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous 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 patent(s) or 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 on 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. The state of the s

Additional inventors are being named on the <u>1</u> supplemental sheet(s) attached hereto.

LEGAL NAME OF INVENTOR	1 1:					
Inventor's Name ⇒ Inventor: Sejin OH		October/10, 2016				
Inventor's Signature ⇒ Signature:						
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.						

SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1

LEGAL NAME OF JOINT INVENTOR, IF ANY

inventor's Name =	⇒ Inventor:	Woosuk KO	Date:	10	oct	•	201	6
Inventor's Signature =	⇒ Signature:	Jan		.,				
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY		i.				
Inventor's Name	⇒ Inventor:	Woosuk KWON	Date:	9. 0	od.	261	6	
Inventor's Signature	⇒ Signature:	JM 7						
	LEGAL N	AME OF JOINT INVENTOR, IF ANY						
Inventor's Name	⇔Inventor:	Jangwon LEE	Date:	9.	od.	20	(6	****
Inventor's Signature	⇔Signature:	- 5 Man		<u></u>				Belle d'Alexander d'Alexandre d'Alexandre
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY						
Inventor's Name	⇒Inventor:	Sungryong HONG	Date:	***************************************				
Inventor's Signature	⇔Signature:							
	LEGAL N	AME OF JOINT INVENTOR, IF ANY				ŧ		
Inventor's Name	⇔Inventor:	Kyoungsoo MOON	Date:		***			
Inventor's Signature	⇔Signature:							,
	LEGAL N	AME OF JOINT INVENTOR, IF ANY						
Inventor's Name	⇔Inventor:		Date:				w.	
Inventor's Signature	⇔Signature:							
	LEGAL N	AME OF JOINT INVENTOR, IF ANY						
Inventor's Name	⇔Inventor:		Date:					····
Inventor's Signature	⇔Signature:							
	LEGAL N	AME OF JOINT INVENTOR, IF ANY						
Inventor's Name	⇔Inventor:		Date:					
Inventor's Signature	⇔Signature;							

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REEL: 039995 FRAME: 0005

SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1

	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇒ Inventor:	Woosuk KO	Date:
Inventor's Signature	⇔ Signature:		
	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇒ Inventor:	Woosuk KWON	Date:
Inventor's Signature	⇔ Signature:		
	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	Jangwon LEE	Date:
Inventor's Signature	⇒Signature:		
	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	Sungryong HONG	Date: Oct. 10, 2016
Inventor's Signature	⇔Signature:	<u> </u>	
	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	[⇔] Inventor:	Kyoungsoo MOON	Date:
Inventor's Signature	⇔Signature:		
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:		Date:
Inventor's Signature	⇔Signature:		
	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:		Date:
Inventor's Signature	⇒Signature:		
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:		Date:
Inventor's Signature	⇔Signature:		

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SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1

	LEGAL NA	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	> Inventor:	Woosuk KO	Date:	
Inventor's Signature	Signature:			
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	→ Inventor:	Woosuk KWON	Date:	
Inventor's Signature	⇒ Signature:			
	LEGAL NA	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	Jangwon LEE	Date:	
Inventor's Signature	⇔Signature:			
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	Sungryong HONG	Date:	
Inventor's Signature	⇔Signature:	And the second s		
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	Kyoungsoo MOON	Date:	2016.10.10
Inventor's Signature	⇔Signature:			
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇒Inventor:	· · · · · · · · · · · · · · · · · · ·	Date:	
Inventor's Signature	⇔Signature:			
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:		Date:	
Inventor's Signature	⇔Signature:			
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:		Date:	
Inventor's Signature	⇔Signature:			

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kyoungsoo.moon/문경수/192.168 219 110/2016-10-10 09:48 **PATENT REEL: 039995 FRAME: 0007**

RECORDED: 10/12/2016