01/23/2015 503149198

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3195810

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JOONHUI LEE	06/07/2013
KWANSUK KIM	06/17/2013
GOMER THOMAS	06/17/2013
DONGWAN SEO	06/17/2013
SANGHYUN KIM	06/17/2013
JONGYEUL SUH	06/17/2013

RECEIVING PARTY DATA

Name:	LG ELECTRONICS INC.
Street Address:	128, YEOUI-DAERO, YEONGDEUNGPO-GU
City:	SEOUL
State/Country:	KOREA, REPUBLIC OF
Postal Code:	150-721

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14604070

CORRESPONDENCE DATA

Fax Number: (202)496-7756

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: 2024967500

kchloee@gmail.com Email:

MCKENNA LONG & ALDRIDGE LLP **Correspondent Name:**

1900 K STREET, NW Address Line 1:

Address Line 4: WASHINGTON, D.C. 20006

NAME OF SUBMITTER:	ONG S. CHOI
SIGNATURE: /Y	Yong S. Choi/
DATE SIGNED: 0°	1/23/2015

Total Attachments: 12

PATENT REEL: 034801 FRAME: 0535

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PATENT REEL: 034801 FRAME: 0536

Assignment of Application

WHEREAS,	, I (WE)				
		Sanghyun KIM; Jongyeul	SUH		
					, respectively,
have invented cert	ain new a	and useful improvements in			
		TING A BROADCAST SERVIND APPARATUS FOR RECE			
for which an appli	cation for	r Letters Patent was execute	d on		
(Application No.		, File	d), and
WHEREAS,	LG Ele	etronics. Inc.			
(hereinafter referre	ed to as ".	ASSIGNEE") having a plac	e of l	ousiness at:	
20 Yeouido-dong,	Yeongde	eungpo-gu Seoul 150-721, F	eput	olic of Korea	

is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and Its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behalf of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

Page 1 of 2

The undersigned hereby grant(s) the firm of McKenna Long & Aldridge LLP, Attorneys at Law, 1900 K Street, N.W., Washington, D.C. 20006 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date:	2013.6.17	(Signature of Eventor) Joonhui LEE
Date <u>:</u>	2013.6.17	(Signature of Inventor) Kwansuk KIM
Date:	2013.6.17	(Signature of Inventor) Gomer Thomas
Date:	2013.6.17	(Signature of Inventor) Dongwan SEO
Date:	2013.6.17	(Signature of Inventor) Sanghyun KIM
Date:	2013.6.17	(Signature of Inventor) Jongycul SUH

McKenna Long & Aldridge LLP Attorneys At Law 1900 K Street, N.W. Washington, D.C. 20006

Page 2 of 2

DC:50666407.1

joonhui.lee/이준회/10.177.108.11/2013-06 14 10:0

Docket No.: 8736.00772.US00

Assignment of Application

WHEREAS, I (WE)	Joonhui LEE; Kwansuk KIM; Gomer Thomas; Dongwan SEO;			
	Sanghyun KIM; Jongyeul SUI	H		
				 , respectively,
have invented certain new a	and useful improvements in:			
	TING A BROADCAST SERVIC ND APPARATUS FOR RECEIVI			
for which an application for	Letters Patent was executed o	n	··········	

(Application No.	13/980,335	, Filed	July 18, 2013), and
WHEREAS,	LG Electronics. Inc.			
(hereinafter referre	ed to as "ASSIGNEE") having a place o	of business at:	
20 Yeouido-dong,	Yeongdeungpo-gu Se	oul 150-721, Rep	oublic of Korea	

is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and Its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behalf of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

Page 1 of 2

Docket No.: 8736.00772.US00

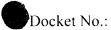
The undersigned hereby grant(s) the firm of McKenna Long & Aldridge LLP, Attorneys at Law, 1900 K Street, N.W., Washington, D.C. 20006 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date:		
-	(Signature of Inventor) Joonhui LEE	
Date: /-22-20/4	(Signature of Inventor) Kwansuk KIM	
Date:	(Signature of Inventor) Gomer Thomas	
Date:	(Signature of Inventor) Dongwan SEO	
Date:	(Signature of Inventor) Sanghyun KIM	
Date:	(Signature of Inventor) Jongyeul SUH	

McKenna Long & Aldridge LLP Attorneys At Law 1900 K Street, N.W.

Washington, D.C. 20006

Page 2 of 2



Assignment of Application

WHEREAS,	I (WE)	Joonhui LEE; Kwansuk KIM; Gomer Thomas; Dongwan SEO; Sanghyun KIM; Jongyeul SUH		
		Sangnyun Kilvi, songyeur Seri	, respectively,	
have invented cert	ain new a	and useful improvements in:		
		TING A BROADCAST SERVICE, ND APPARATUS FOR RECEIVIN		
for which an appli	cation fo	Letters Patent was executed on		
			,	
(Application No.		, Filed), and	
WHEREAS,	LG Ele	ctronics. Inc.		
(hereinafter referre	ed to as "	ASSIGNEE") having a place of l	ousiness at:	
20 Yeouido-dong.	Yeongde	eungpo-gu Seoul 150-721, Repub	olic of Korea	

is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

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Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

PATENT REEL: 034801 FRAME: 0541

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Date:	2013.6.17	
		(Signature of Inventor) Joonhui LEE
Date <u>:</u>	2013.6.17	(Signature of Inventor)
Date:	2013.6.17	Kwansuk KIM John Johnson Signature of Inventor) Gomer Thomas
Date:	2013.6.17	(Signature of Inventor) Dongwan SEO
Date:	2013.6.17	(Signature of Inventor) Sanghyun KIM
Date:	2013.6.17	(Signature of Inventor) Jongyeul SUH

McKenna Long & Aldridge LLP

Attorneys At Law 1900 K Street, N.W. Washington, D.C. 20006

Page 2 of 2

DC:506664071

Assignment of Application

WHEREAS,	I (WE)	Joonhui LEE; Kwansuk KIM; Gomer Thomas; Dongwan SEO;			
		Sanghyun KIM; Jo	ngyeul SU	<u>H</u>	, respectively,
have invented cert	ain new a	and useful improvem	ents in:		
		TING A BROADCAS ND APPARATUS FOI			FOR RECEIVING A ADCAST SERVICE
for which an appli	cation fo	r Letters Patent was e	executed o	on	
(Application No.			, Filed	WATER TO THE TOTAL PROPERTY OF THE TOTAL PRO), and
WHEREAS,	LG Ele	etronics. Inc.	1		<u>, </u>
(hereinafter referre	ed to as "	ASSIGNEE") having	g a place o	of business a	t:
20 Veouido-dong	Veonade	eungpo-gu Seoul 150	-721 Ren	ublic of Kor	rea

is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration. I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and Its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behalf of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

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Date <u>:</u>	2013.6.17	(Signature of Inventor) Kwansuk KIM
Date:	2013.6.17	(Signature of Inventor) Gomer Thomas
Date:	2013.6.17	(Signature of Inventor) Dongwan SEO
Date:	2013.6.17	(Signature of Inventor) Sanghyun KIM
Date:	2013.6.17	(Signature of Inventor) Jongyeul SUH

McKenna Long & Aldridge LLP

Attorneys At Law 1900 K Street, N.W. Washington, D.C. 20006

Page 2 of 2

Assignment of Application

WHEREAS,	I (WE)	Joonhui LEE; Kwansuk KIM; Gomer Thomas; Dongwan SEO;				
		Sanghyun KIM; Jongye	ul SU	H		
						, respectively,
have invented certa	ain new a	and useful improvements	in:			
		TING A BROADCAST SE ND APPARATUS FOR RE				
for which an applic	cation for	r Letters Patent was exec	ited o	on		
(Application No.		l . F	led), and
WHEREAS,	LG Ele					
(hereinafter referre	ed to as ".	ASSIGNEE") having a p	ace o	of business	at:	
20 Yeouido-dong,	Yeongde	eungpo-gu Seoul 150-721	, Rep	ublic of K	orea	

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		(Signature of Inventor) Joonhui LEE
Date:	2013.6,17	
-		(Signature of Inventor) Kwansuk KIM
Date:	2013.6.17	(Signature of Inventor)
		Gomer Thomas
Date:	2013.6.17	(Signature of Insentor)
		Dongwan SEO
Date:	2013.6.17	(Signature of Inventor)
		Sanghyun KIM
Date:	2013.6.17	
		(Signature of Inventor) Jongveul SUH

McKenna Long & Aldridge LLP

Attorneys At Law 1900 K Street, N.W. Washington, D.C. 20006

Page 2 of 2

DC 50666467 (

Assignment of Application

WHEREAS,	I (WE)	2) Joonhul LEE; Kwansuk KIM; Gomer Thomas; Dongwan SEO;		
		Sanghyun KIM; Jongyeul SUI	1	
			, respectively,	
have invented cert	ain new a	and useful improvements in:		
		TING A BROADCAST SERVICE ND APPARATUS FOR RECEIVE	E, METHOD FOR RECEIVING A NG A BROADCAST SERVICE	
for which an appli	cation for	r Letters Patent was executed or	1	
(Application No.		, Filed), and	
WHEREAS,	LG Ele	ctronics. Inc.		
(hereinafter referre	ed to as ".	ASSIGNEE") having a place of	business at:	
20 Yeouido-dong,	Yeongde	eungpo-gu Seoul 150-721, Repu	iblic of Korea	

is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

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Date:	2013.6.17	(Signature of Inventor) Joonhui LEE
Date <u>:</u>	2013.6.17	(Signature of Inventor) Kwansuk KIM
Date:	2013.6.17	(Signature of Inventor) Gomer Thomas
Date:	2013.6.17	(Signature of Inventor) Dongwan SEO
Date:	2013.6.17	(Signature of Inventor) Sanghyun KIM
Date:	2013.6.17	(Signature of Inventor)

McKenna Long & Aldridge LLP

Attorneys At Law 1900 K Street, N.W. Washington, D.C. 20006

Page 2 of 2

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PATENT REEL: 034801 FRAME: 0548

RECORDED: 01/23/2015