#### 503592803 12/02/2015

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

NEW ASSIGNMENT

EPAS ID: PAT3639433

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
JAE HOON CHUNG	10/17/2011
SO YEON KIM	10/11/2011
SUNGHO MOON	10/12/2011
SEUNGHEE HAN	10/17/2011
YEONG HYEON KWON	10/15/2011

#### **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:	14956759		

#### **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:** 202-496-7500

Email: mlaip@dentons.com

Correspondent Name: DENTONS US LLP

Address Line 1: 1900 K. STREET, N.W.

Address Line 4: WASHINGTON, D.C. 20006

ATTORNEY DOCKET NUMBER:	8737.00480.US21
NAME OF SUBMITTER:	MARK R. KRESLOFF
SIGNATURE:	/Mark R. Kresloff/
DATE SIGNED:	12/02/2015

**Total Attachments: 8** 

503592803

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PATENT REEL: 037190 FRAME: 0281



PATENT REEL: 037190 FRAME: 0282

Docket No,:

## **Assignment of Application**

WHEREAS, I (WE)	CHUNG, Jae Hoon, KIM, So Yeon, MOON, Sungho, HAN, Seunghee and KWON, Yeong Hyeon		
			, respectively,
have invented certain new a	and useful improvements in:		4
	PARATUS FOR TRANSMIT L FOR MERGING CARRIE		
for which an application for	Letters Patent was executed o	n	

(Application No.	14/956,759	, Filed	December 2, 2015	), and
WHEREAS,	LG Electronics Inc.			
1 .	ed to as "ASSIGNEE") having , Yeongdeungpo-gu, Seoul, 1			

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: 11 Oct. 12011	Joe Hoon Oly
	(Signature of Inventor) CHUNG, Jae Hoon
Date;	
	(Signature of Inventor) KIM, So Yeon
Date:	
	(Signature of Inventor) MOON, Sungho
Date: 11,0ct.voll	
	(Signature of Inventor) HAN, Seunghee
Date:	
	(Signature of Inventor)  KWON, Yeong Hyeon

McKenna Long & Aldridge LLP

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

LG Ref: 10FCCM203US02 Docket No.:

# **Assignment of Application**

WHEREAS, I (WE	WHEREAS, I (WE) CHUNG, Jae Hoon, KIM, So Yeon, MOON, Sungho, HA Scunghee and KWON, Yeong Hyeon			
Walter Co. V	· · · · · · · · · · · · · · · · · · ·		, resp	ectively,
have invented certain nev	v and useful imp	provements in:		
			TING AND RECEIVI RS IN TRANSMISSIO	
for which an application	for Letters Pater	nt was executed or	1	

(Application No.	14/956,759	, Filed	December 2, 2015	), and	
WHEREAS,	HEREAS, LG Electronics Inc.				
(hereinafter referred to as "ASSIGNEE") having a place of business at:					
20, Yeouido-dong, Yeongdeungpo-gu, Seoul, 150-721, Republic 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.

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Date:	•	
	(Signature of Inventor)	
	CHUNG, Jae Hoon	
•		
Date: 1th. act. 2011	Deg~	
	(Signature of Inventor)	
•	KIM, So Yeon	
	•	
Date:		
	(Signature of Inventor)	
	MOON, Sungho	
Date:		
Date.	(Ciamatura of Inventor)	
	(Signature of Inventor)	
	HAN, Scunghee	
Date:		
•	(Signature of Inventor)	
	KWON, Yeong Hyeon	

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

Page 2 of 2

LG Ref: 10FCCM203US02 Docket No.:

### **Assignment of Application**

WHEREAS,	REAS, I (WE) CHUNG, Jac Hoon, KIM, So Yeon, MOON, Sungho, HAN, Seunghee and KWON, Yeong Hyeon			
				, respectively,
have invented certa	in new and useful ir	nprovements in:		
	ND APPARATUS SIGNAL FOR ME			
for which an applic	cation for Letters Pat	ent was executed or	1	
(Application No.	14/956,759	, Filed	December	2, 2015 ), and
WHEREAS	LC Electronics Inc			

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;

(hereinafter referred to as "ASSIGNEE") having a place of business at: 20, Yeouido-dong, Yeongdeungpo-gu, Seoul, 150-721, Republic of Korea

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:	
	(Signature of Inventor) CHUNG, Jae Hoon
Date;	(Figure 1) of Translation
	(Signature of Inventor) KIM, So Yeon
Date: Oct. 12. 2011	(Signature of Invantor)
	MOON, Sungho
Date:	
	(Signature of Inventor) HAN, Seunghee
Date:	
	(Signature of Inventor) KWON, Young Hyeon

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

LG Ref: 10FCCM203US02 Docket No.:

# **Assignment of Application**

WHEREAS, I (WE)	CHUNG, Jae Hoon, KIM, So Yeon, MC Seunghee and KWON, Yeong Hyeon	OON, Sungho, HAN,
		, respectively,
have invented certain new	and useful improvements in:	
METHOD AND AP CONTROL SIGNA	PARATUS FOR TRANSMITTING A LL FOR MERGING CARRIERS IN T	ND RECEIVING RANSMISSION
	r Letters Patent was executed on	

(Application No.	14/956,759	, Filed	December 2, 2015	), and
1	LG Electronics Inc.			
(hereinafter referre 20, Yeouido-dong,	d to as "ASSIGNEE") ha Yeongdeungpo-gu, Seo	aving a place oul, 150-721, R	of business at: epublic 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:	
	(Signature of Inventor)
	CHUNG, Jae Hoon
Date:	
	(Signature of Inventor)
	KIM, So Yeon
	TRAINING TO
Date:	·
	(Signature of Inventor)
	MOON, Sungho
	MOON, Sangno
Date:	
	(Signature of Inventor)
	, =
	HAN, Seunghee
	a tail
2011-Oct-15	W 95 W
Date:	· · · · · · · · · · · · · · · · · · ·
<del></del>	(Signature of Inventor)
	, -
	KWON. Veong Hyeon

McKenna Long & Aldridge LLP

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

Page 2 of 2