503607286 12/11/2015

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3653917

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
KYUNGMIN PARK	11/24/2015
INSUN LEE	12/04/2015
DAEWOOK BYUN	11/24/2015
JIAN XU	11/24/2015

#### 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:	14897552

### 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

Email: christopher.smith@bskb.com, mailroom@bskb.com

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:	5438-0722PUS1
NAME OF SUBMITTER:	CHRISTOPHER SMITH
SIGNATURE:	/Christopher Smith/
DATE SIGNED:	12/11/2015

### **Total Attachments: 6**

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**PATENT REEL: 037268 FRAME: 0415** 503607286

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PATENT REEL: 037268 FRAME: 0416

# BIRCH, STEWART, KOLASCH & BIRCH, LLP

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## **ASSIGNMENT**

Application No.	14/897,552	Filed	December 10, 2015	
Insert Name(s) of Inventor(s)	***(Given Name	FAMILY NAME (ALL CA	APS))***	
oi inventor(s)	WHEREAS, PARK, Kyungmin; designated as the undersigned) has	LEE, Insun; BYUN, Das (have) invented certa	newook and XU, Jian(hereinafter in new and useful improvements in:	
Insert Title of Invention	METHOD AND APPARATO COVERAGE IN WIRELESS		TTING INDICATION OF CELL ON SYSTEM	
	for which an application for Letter undersigned (except in the case of a	rs Patent of the United S a provisional application	States of America has been executed by the	
Insert Date of Signing of	on <u>November 24, 2015; I</u>	December 4, 2015	; and	
Application Insert Name of Assignee	WHEREAS, LG ELECTRONICS			
Insert Address of Assignee	of 128, Yeoui-daero, Yeongdeungpo-gu Seoul 150-721 Republic of Korea			
CHECK BOX	its heirs, successors, legal repress desirous of acquiring the entire righ Patent(s) that may be granted theref  x in any foreign countries.	nt, title and interest in an	hereinafter designated as the Assignee) is d to said invention and in and to any Letters f America and	
IF APPROPRIATE	paid, the receipt of which is here undersigned has (have) sold, assig transfer unto said Assignee the ful America, its territories, dependencie and all Letters Patent(s) which may	by acknowledged, and a gned and transferred, and all and exclusive right to es and possessions and the begranted therefor in	Dollars (\$10.00) to the undersigned in hand other good and valuable consideration, the nd by these presents does sell, assign and the said invention in the United States of the entire right, title and interest in and to any the United States of America, its territories, nated, in any and all foreign countries;	
	and to any and all divisions, reissue or terms for which the same may be	s, continuations, convers granted.	ions and extensions thereof for the full term	
continui connecti	The undersigned agree(s) to executing, divisional, conversion or reissue ion with such applications as the Assi	applications thereof ar	n connection with this application and any ad also to execute separate assignments in ry or expedient.	
Patent(s)	declared concerning this application	or continuation, division or continuation, division of the A	in connection with any interference which on, conversion or reissue thereof or Letter assignee in every way possible in obtaining	

The undersigned agree(s) 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)

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.

# ATTORNEY DOCKET NO. 5438-0722PUS1

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 Patents 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 Nov. 24. 2015	,	Name of Inventor	PARK, KYUNGMIN (signature) PARK, Kyungmin
Date	,	Name of Inventor	(signature) LEE, Insun
Date	,	Name of Inventor	(signature) BYUN, Daewook
Date,	,	Name of Inventor	(signature) XU, Jian

## BIRCH, STEWART, KOLASCH & BIRCH, LLP

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## **ASSIGNMENT**

Application No.	14/897,552	Filed _	December 10, 2015	
Insert Name(s) of Inventor(s)	***(Given Name FAMILY NAME (ALL CAPS))*** WHEREAS, PARK, Kyungmin; LEE, Insun; BYUN, Daewook and XU, Jian(hereinafter			
Insert Title of Invention		S FOR TRANSMIT	n new and useful improvements in:  TTING INDICATION OF CELL  ON SYSTEM	
	for which an application for Letters undersigned (except in the case of a	Patent of the United S provisional application)	tates of America has been executed by the	
Insert Date of Signing of	on November 24, 2015;	December 4, 2015	; and	
Application Insert Name of Assignce Insert Address	WHEREAS, LG ELECTRONICS		11: 0V	
of Assignee	of 128, Yeoui-daero, Yeongdeungpo-gu Seoul 150-721 Republic of Korea			
CHECK BOX	desirous of acquiring the entire right Patent(s) that may be granted therefor x in any foreign countries.	, title and interest in and	nereinafter designated as the Assignee) is If to said invention and in and to any Letters EAmerica and	
IF APPROPRIATE	paid, the receipt of which is hereb undersigned has (have) sold, assign transfer unto said Assignee the full America, its territories, dependencies and all Letters Patent(s) which may	y acknowledged, and comed and transferred, and and exclusive right to and possessions and the granted therefor in the	Dollars (\$10.00) to the undersigned in hand other good and valuable consideration, the d by these presents does sell, assign and the said invention in the United States of e entire right, title and interest in and to any he United States of America, its territories, nated, in any and all foreign countries;	
	and to any and all divisions, reissues or terms for which the same may be	, continuations, conversignanted.	ions and extensions thereof for the full term	
		applications thereof an	d connection with this application and any d also to execute separate assignments in y or expedient.	
Patent(s	declared concerning this application	or continuation, divisio to cooperate with the A	in connection with any interference which on, conversion or reissue thereof or Letter ssignee in every way possible in obtaining	

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In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date,	Name of Inventor (signature) PARK, Kyungmin
Date <u>Dec. 4. 2015</u> ,	Name of Inventor (signature) LEE, Insun
Date,	Name of Inventor(signature) BYUN, Daewook
Date,	Name of Inventor (signature) XU, Jian

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Application No.	14/897,552	Filed	December 10, 2015
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Insert Title of Invention	METHOD AND APPARAT COVERAGE IN WIRELES		TTING INDICATION OF CELL ON SYSTEM
	for which an application for Lett- undersigned (except in the case of	ers Patent of the United Sa provisional application	States of America has been executed by th
Insert Date of Signing of	onNovember 24, 2	015; December 4, 20	15; and
Application Insert Name of Assignee	WHEREAS, LG ELECTRONIC	S INC.	
Insert Address of Assignee	of 128, Yeoui-daero, Yeongdeung	po-gu Seoul 150-721 Rep	ublic of Korea
CHECK BOX IF APPROPRIATE	its heirs, successors, legal repredesirous of acquiring the entire rig Patent(s) that may be granted there x in any foreign countries.	tht, title and interest in an	nereinafter designated as the Assignee) in different designated as the Assignee in different designation and to any Letter of America and
I ALTROPRIATE	paid, the receipt of which is her undersigned has (have) sold, ass transfer unto said Assignee the fi America, its territories, dependen any and all Letters Patent(s) wh	eby acknowledged, and of igned and transferred, at all and exclusive right to cies and possessions and ich may be granted ther	Dollars (\$10.00) to the undersigned in hand other good and valuable consideration, the ad by these presents does sell, assign and the said invention in the United States of the entire right, title and interest in and to refor in the United States of America, its above is designated, in any and all foreign
	and to any and all divisions, reis term or terms for which the same i	sues, continuations, conv	ersions and extensions thereof for the ful
continu			n connection with this application and any d also to execute separate assignments in

may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter 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 necessary in connection with any interference which

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.

connection with such applications as the Assignee may deem necessary or expedient.

#### ATTORNEY DOCKET NO. 5438-0722PUS1

The undersigned agree(s) 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.

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In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date ,	Name of Inventor
	(signature) PARK, Kyungmin
Datc,	Name of Inventor
	(signature) LEE, Insun
Date November 24, 2015,	Name of Inventor BKUN, Daewook
,	(signature) BYUN, Daewook
Date Nov. 24, 2015,	Name of Inventor  Xu Ji Cun
1	(signature) XU, Jian

**RECORDED: 12/11/2015**