#### 504480749 07/31/2017

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4527451

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
SUNGHOON JUNG	06/23/2017
YOUNGDAE LEE	06/23/2017
SUNYOUNG LEE	06/23/2017
JAEHYUN KIM	06/26/2017

#### **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:	15547201	

### 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: mailroom@bskb.com, Tuyet.A.Nguyen@bskb.com BIRCH, STEWART, KOLASCH & BIRCH, LLP **Correspondent Name:** Address Line 1: 8110 GATEHOUSE ROAD, SUITE 100E

Address Line 4: FALLS CHURCH, VIRGINIA 22042

ATTORNEY DOCKET NUMBER:	5438-0887PUS1
NAME OF SUBMITTER:	TUYET ANH NGUYEN
SIGNATURE:	/TUYET ANH NGUYEN/
DATE SIGNED:	07/28/2017

#### **Total Attachments: 4**

source=2017-07-28\_Assignment\_5438-0887PUS1#page1.tif source=2017-07-28 Assignment 5438-0887PUS1#page2.tif source=2017-07-28\_Assignment\_5438-0887PUS1#page3.tif

**PATENT** REEL: 043143 FRAME: 0369 504480749

 $source = 2017\text{-}07\text{-}28\_Assignment\_5438\text{-}0887PUS1\#page4.tif}$ 

PATENT REEL: 043143 FRAME: 0370 16FASL125PC01US01 ATTORNEY DOCKET NO.: 5438-0887PUS1

# BIRCH, STEWART, KOLASCH & BIRCH, LLP

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

### **ASSIGNMENT**

Application No.	15/547,201	Filed _	July 28, 2017	
Insert Name(s) of Inventor(s)	***(Given Name FAMILY NAME (ALL CAPS))***			
of inventor(s)	WHEREAS, JUNG, Sunghoon; Lidesignated as the undersigned) has		nyoung and KIM, Jaehyun (hereinafter n new and useful improvements in:	
Insert Title of Invention			Y MESSAGE BY TERMINAL IN ID TERMINAL USING SAME	
	for which an application for Letter undersigned (except in the case of a		tates of America has been executed by the	
Insert Date of Signing of	on June 23, 2017		; and	
Application Insert Name WHEREAS, LG ELECTRONICS INC.				
of Assignee Insert Address of Assignee	of 128, Yeoui-daero, Yeongdeungp	o-gu, Seoul 07336, Rep	ublic of Korea	
СНЕСК ВОХ		t, title and interest in an	nereinafter designated as the Assignee) is d to said invention and in and to any Letters f America and	
IF APPROPRIATE		tion of the sum of Ten I	Dollars (\$10.00) to the undersigned in hanc	
	paid, the receipt of which is here undersigned has (have) sold, assig transfer unto said Assignee the ful America, its territories, dependence any and all Letters Patent(s) which	by acknowledged, and or gned and transferred, and and exclusive right to les and possessions and the may be granted the	other good and valuable consideration, the dby 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, it above is designated, in any and all foreign	

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.

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 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 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.

16FASL125PC01US01 ATTORNEY DOCKET NO.: 5438-0887PUS1

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.

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 2017.06.23 ,	Name of Inventor  (signature) JUNG, Sunghoon
Date 2017.06.23 ,	Name of Inventor  (signature) LEE, Youngdae
Date 2017.06.23 ,	Name of Inventor  Sun Young LEE, Sunyoung
Date,	Name of Inventor

21

# BIRCH, STEWART, KOLASCH & BIRCH, LLP

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

### ASSIGNMENT

Application No.		uly 28, 2017
Insert Name(s) of Inventor(s)	***(Given Name FAMILY NAME (ALL CAPS))	***
	WHEREAS, JUNG, Sunghoon; LEE, Youngdae; LEE, Sunyo designated as the undersigned) has (have) invented certain ne	- · · · · · · · · · · · · · · · · · · ·
Insert Title of Invention	METHOD FOR TRANSMITTING DISCOVERY M WIRELESS COMMUNICATION SYSTEM, AND T	
	for which an application for Letters Patent of the United States undersigned (except in the case of a provisional application)	s of America has been executed by the
Insert Date of Signing of	on June 26, 2017	; and
Application Insert Name of Assignee Insert Address	WHEREAS, LG ELECTRONICS INC. of 128, Yeoui-daero, Ycongdcungpo-gu, Seoul 07336, Republic	c of Korea
of Assignee		
CHECK BOX IF APPROPRIATE	its heirs, successors, legal representatives and assigns (herei desirous of acquiring the entire right, title and interest in and to Patent(s) that may be granted therefor in the United States of An x in any foreign countries.	said invention and in and to any Letters
	NOW, THEREFORE, in consideration of the sum of Ten Dolla paid, the receipt of which is hereby acknowledged, and other undersigned has (have) sold, assigned and transferred, and b transfer unto said Assignee the full and exclusive right to the	r good and valuable consideration, the by these presents does sell, assign and 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.

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 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 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 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	,	Name of Inventor		
	_	(	signature) JUNG, Sunghoon	
Date	,	Name of Inventor		
	_	(	signature) LEE, Youngdae	
Date	,	Name of Inventor		
		(	signature) LEE, Sunyoung	
Date 2017. 06.26	_,	Name of Inventor	JAEHYUN KIM	Tuelyn
		(	signature) KIM. Jaehvun	/