## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3751483

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
MINSUNG KWAK	02/11/2016
SEJIN OH	02/01/2016
KYOUNGSOO MOON	01/29/2016
JANGWON LEE	02/01/2016
WOOSUK KO	02/12/2016
SUNGRYONG HONG	02/22/2016

#### **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:	14913639		

#### **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, lboone@bskb.com

Correspondent Name: BIRCH, STEWART, KOLASCH & BIRCH, LLP

Address Line 1: P.O. BOX 747

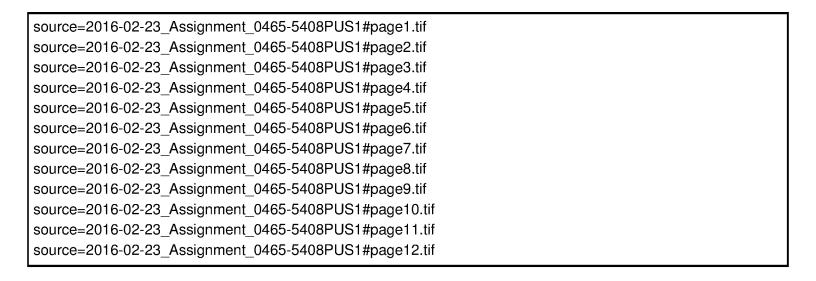
Address Line 4: FALLS CHURCH, VIRGINIA 22040-0747

ATTORNEY DOCKET NUMBER:	0465-5408PUS1
NAME OF SUBMITTER:	LA TESA BOONE
SIGNATURE:	/LA TESA BOONE/
DATE SIGNED:	02/23/2016

**Total Attachments: 12** 

PATENT REEL: 037800 FRAME: 0180

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PATENT REEL: 037800 FRAME: 0181

## Application No. 14/913,639 Filed Date: February 22, 2016 Execution Date: Jan. 29, Feb. 1, 11-12 & 22, 2016 LGE Ref.: 15FASL644US02 (MHK) Attorney Docket No. 0465-5408PUS1

## 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

	Civilies States Los all tokers at Atera Michils
Title of Invention	* METHOD FOR TRANSMITTING BROADCAST SIGNALS, APPARATUS FOR TRANSMITTING BROADCAST SIGNALS, METHOD FOR RECEIVING BROADCAST SIGNALS AND APPARATUS FOR RECEIVING BROADCAST SIGNALS
	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/KR2015/008773
Enter Filing Date	⇔ filed on August 21, 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 Assignee	* 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

Page 1

terms for which the same may be granted.

any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or

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 or 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.

	-LEGAL NA	AME OF INVENTOR				
Inventor's Name = ==	Inventor:	KWAK, Minsung	Date:	11.	Feb. 2016	
Inventor's Signature <2	Signature:	Sende				
		O/SB/14 or equivalent), including naming the entire inventiv nventor; or check the box below and complete the attached pa				
Additional in	wentors are b	eing named on the 1 supplemental sheet(s) attached hereto.				

Page 2

## 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: OH, Sejin	Date:	Feb. 1, 2016
Inventor's Signature	Signature:		
	LEGAL NAME OF JOINT INVENTOR, IF ANY		
inventor's Name	Inventor: MOON, Kyoungsoo	Date	
Inventor's Signature			
Ť	Signature:		
	LEGAL NAME OF JOINT INVENTOR, IF ANY		
'nvestor's Name	*Inventor: LEE, Jangwon	Date: e	e.1, 2016
inventor's Signature	*Signature: / WLEN		
	LEGAL NAME OF JOINT INVENTOR, IF ANY		
nventor's Name	<sup>∞</sup> Inventor: KO, Woosuk	Date:	
nventor's Signature	Signature:		
	LEGAL NAME OF JOINT INVENTOR, IF ANY		
nventor's Name	**Inventor: HONG, Sungryong	Date:	
nventor's Signature	<sup>3</sup> Signature:		
	LEGAL NAME OF JOINT INVENTOR, IF ANY		
nventor's Name	*Inventor:	Date:	
nsentor's Signature	*Signature:		
	LEGAL NAME OF JOINT INVENTOR, IF ANY		
nventor's Name	*Inventor:	Date:	
aventor's Signature	°Signature:		
	LEGAL NAME OF JOINT INVENTOR, IF ANY		
nventor's Name	**Inventor:	Date:	Annual Control of the
oventor's Signature	°Signature:	***************************************	

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PATENT REEL: 037800 FRAME: 0184

## 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	* METHOD FOR TRANSMITTING BROADCAST SIGNALS, APPARATUS FOR TRANSMITTING BROADCAST SIGNALS, METHOD FOR RECEIVING BROADCAST SIGNALS AND APPARATUS FOR RECEIVING BROADCAST SIGNALS
	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 Appln. No.	⇒ United States Application Number or PCT International Appln. No. PCT/KR2015/008773
Enter Filing Date	⇔ filed on August 21, 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 Assignee	⇒ WHEREAS, LG ELECTRONICS INC.
Insert Address of Assignee	⇔ of 128, Yeoui-daero, Yeongdeungpo-gu, Seoul 07336 Republic of Korea,
U	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.
,, ·r · ·	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.

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 or 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.

# Inventor's Name 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. Additional inventors are being named on the 1 supplemental sheet(s) attached hereto.

 $LGE\,Ref.:\,15FASL644US02\;(MHK)\\ Attorney\,Docket\,No.\,\,0465-5408PUS1$ 

## SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

## ADDITIONAL INVENTOR(S) Supplemental Sheet Page $\underline{1}$ of $\underline{1}$

	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
inventor's Name	Inventor:	OH, Sejin	Date:	
Inventor's Signature i	Signature:			
	JECAL NI	AME OF JOINT INVENTOR, IF ANY		
	LEGAL IV	AME OF JOHNT INVENTOR, IF AINT		
Inventor's Name	⇒ Inventor:	MOON, Kyoungsoo	Date:	2016.1.29
Inventor's Signature	Signature:			
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	LEE, Jangwon	Date:	· · · · · · · · · · · · · · · · · · ·
Inventor's Signature	⇒Signature:		· · · · · · · · · · · · · · · · · · ·	
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	KO, Woosuk	Date:	****
Inventor's Signature	⇒Signature:			
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	HONG, Sungryong	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:	
Înventor's Signature	⇒Signature:		·····	
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:		Date:	
Inventor's Signature	⇒Signature:		******	;

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#### 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

ightharpoons method for transmitting broadcast signals, apparatus for transmitting BROADCAST SIGNALS, METHOD FOR RECEIVING BROADCAST SIGNALS AND APPARATUS FOR RECEIVING BROADCAST SIGNALS

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 Appln. No.

United States Application Number or PCT International Appln. No. PCT/KR2015/008773

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 Assignee

⇒ 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.

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.

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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 or 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.

LEGAL NAME OF INVENTOR

## Inventor's Name 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. Additional inventors are being named on the 1 supplemental sheet(s) attached hereto.

## 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 Date: Inventor's Signature ⇒ Signature: LEGAL NAME OF JOINT INVENTOR, IF ANY Inventor's Signature Signature: LEGAL NAME OF JOINT INVENTOR, IF ANY Inventor's Name Sinventor: LEE, Jangwon Date: Inventor's Signature Signature: LEGAL NAME OF JOINT INVENTOR, IF ANY Date: 12 Feb. 2016 Inventor's Name ⇒Inventor: KO, Woosuk Inventor's Signature Signature: LEGAL NAME OF JOINT INVENTOR, IF ANY Inventor's Name □Inventor: HONG, Sungryong Date: Inventor's Signature Signature: LEGAL NAME OF JOINT INVENTOR, IF ANY Date: Inventor's Name ⇔Inventor: Inventor's Signature ⇔Signature: \_\_ LEGAL NAME OF JOINT INVENTOR, IF ANY Inventor's Name ⇒Inventor: Date: Inventor's Signature ⇔Signature:

Date:

LEGAL NAME OF JOINT INVENTOR, IF ANY

Inventor's Name

Inventor's Signature Signature:

BSKB-DECASSIGN\(09-12)

#### 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

		United States Plus all Foreign Patent Rights
Title of Invention	4	METHOD FOR TRANSMITTING BROADCAST SIGNALS, APPARATUS FOR TRANSMITTING BROADCAST SIGNALS, METHOD FOR RECEIVING BROADCAST SIGNALS AND APPARATUS FOR RECEIVING BROADCAST SIGNALS
		As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:
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Application not Attached	eņ.	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 Appln. No.	=	United States Application Number or PCT International Appln. No. PCT/KR2015/008773
Enter Filing Date	=>	filed on August 21, 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 Assignee	*	WHEREAS, LG ELECTRONICS INC.
Insert Address of Assignee	<b>#</b>	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

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terms for which the same may be granted.

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

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

	LEGAL N	AME OF INVENTOR		
Inventor's Name	⇔ Inventor:	KWAK, Minsung	Date:	
Inventor's Signature	<sup>2 ⇔</sup> Signature:	<b>.</b>		
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.  Additional inventors are being named on the 1 supplemental sheet(s) attached hereto.				

Page 2

## 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 P Inventor: OH, Sejin Date: Inventor's Signature Signature; LEGAL NAME OF JOINT INVENTOR, IF ANY Inventor's Signature ⇒ Signature: LEGAL NAME OF JOINT INVENTOR, IF ANY Inventor's Name ⇒Inventor: LEE, Jangwon Date: Inventor's Signature ⇒Signature: LEGAL NAME OF JOINT INVENTOR, IF ANY Inventor's Name Inventor's Signature ⇒Signature: LEGAL NAME OF JOINT INVENTOR, IF ANY Date: 22 Fob >0/6 Inventor's Name <sup>⇔</sup>Inventor: HONG, Sungryong ⇒Signature: LEGAL NAME OF JOINT INVENTOR, IF ANY Date: Inventor's Name ⇔Inventor: Inventor's Signature Signature: LEGAL NAME OF JOINT INVENTOR, IF ANY Date: Inventor's Name ⇒Inventor: Inventor's Signature Signature: LEGAL NAME OF JOINT INVENTOR, IF ANY Date: Inventor's Name ⇔Inventor: Inventor's Signature Signature:

BSKB-DECASSIGN\(09-12)

PATENT REEL: 037800 FRAME: 0193

**RECORDED: 02/23/2016**