### PATENT ASSIGNMENT

### Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
Kidong LEE	08/30/2013
Sanggook KIM	08/30/2013
Kiseon RYU	08/30/2013

### **RECEIVING PARTY DATA**

Name:	LG ELECTRONICS INC.
Street Address:	20 Yeouido-dong, Yeongdeungpo-gu
City:	Seoul
State/Country:	KOREA, REPUBLIC OF
Postal Code:	150-721

### PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	13936905	

### **CORRESPONDENCE DATA**

Fax Number: 7032058050

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: (703)205-8000

Email: mailroom@bskb.com, Kleithon.G.Sayson@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:	0465-3865PUS1		
NAME OF SUBMITTER:	Kleithon Sayson		
Signature:	/kleithon sayson/		
Date:	09/05/2013		

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### Total Attachments: 6

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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
Title of Invention	* METHOD AND APPARATUS FOR SERVICE ACCESS BARRING
	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	$^{\circ}$ 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 Applia No.	United States Application Number or PCT International Appln. No. 13/936,905
Enter Filing Date	⁵ filed on July 8, 2013
	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 20 Yeouido-dong, Yeongdeungpo-gu, Seoul 150-721, 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.

BSKB-DECASSIGN\(09-12)

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 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 N	AME OF INVENTOR		i a h
Inventor's Name	ф	Inventor:	LEE, Kidong	Date:	Aug 30.2013
Inventor's Signatur	ęψ	Signature:	KDoodra		
			O/SB/14 or equivalent), including naming the entire inventive inventive of the control of the stracked particles.		
Additiona	l in	wentors are h	ing named on the 1 supplemental sheet(s) attached hereto		

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# SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

## ADDITIONAL INVENTOR Supplemental Sheet Page 1 of 1

	LEGAL NAME OF JOINT INVENTOR, IF ANY	•	
Inventor's Name	hwentor: KIM, Sanggook	Date:	Aug 30-10/3
Inventor's Signature	Signature: Dang anuk Xi		ACE ACTIVE IN THE SECURITY IS IN A Line of the security of the
	LEGAL NAME OF JOINT INVENTOR, IF ANY		
Inventor's Name	Inventor: RYU, Kiseon	_ Date:	
Inventor's Signature	Signature:		
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Inventor's Signature	Signature:		
	LEGAL NAME OF JOINT INVENTOR, IF ANY		
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	LEGAL NAME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	Date:	
Inventor's Signature	⇒Signature:	*****	
	LEGAL NAME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	Date:	
Inventor's Signature	⇔Signature:		
	LEGAL NAME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇒Inventor:	Date:	
Inventor's Signature	<sup>©</sup> Signature:		
	LEGAL NAME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	Date:	NAME OF THE PROPERTY OF THE PR
Inventor's Signature	⇒Signature:		

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sanggook.kim/KIM GANO GOOK/2013-08-09-07:48:01

### 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 flus all pureign patent rights
Title of Invention	METHOD AND APPARATUS FOR SERVICE ACCESS BARRING
	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 set forth above and/or the following:
Enter Appln. No.	United States Application Number or PCT International Appln. No. 13/936,905
Enter Filing Date	filed on July 8, 2013
	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 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 Code of Federal Regulations § 1.56.
	WHEREAS, the undersigned has invented certain new and useful improvements described in application identified.
Insert Name of Assignee	WHEREAS, LG ELECTRONICS INC.
Insert Address of Assignee	of 20 Yeouido-dong, Yeongdeungpo-gu, Seoul 150-721, Republic of Korea,
3	its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirt of acquiring the entire right, title and interest in and to said invention and in and to any Letters Paten 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 acknowledge the undersigned has sold, assigned and transferred, and by these presents does (do) sell, assign a transfer unto said Assignee the full and exclusive right to the said invention in the United States America, its territories, dependencies and possessions and the entire right, title and interest in and to and all Letters Patent(s) which may be granted therefor in the United States of America, its territor dependencies and possessions, and if the box above is designated, in any and all foreign countries; and any and all divisions, reissues, continuations, conversions and extensions thereof for the full term terms for which the same may be granted.

BSKB-DECASSIGN\(09-12)

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 NAME OF INVENTOR

Inventor's Name	⇒	Inventor:	LEE, Kidong	Date:
Inventor's Signature	; 5	Signature:		
			O/SB/14 or equivalent), including naming the entire inventive inventor; or check the box below and complete the attached pa	
Additional inventors are being named on the 1 supplemental sheet(s) attached hereto.				

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# SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

# ADDITIONAL INVENTOR Supplemental Sheet Page 1 of 1

### LEGAL NAME OF JOINT INVENTOR, IF ANY

Inventor's Name	hventor: KIM, Sanggook	Date:
Inventor's Signature =	Signature:	
	LEGAL NAME OF JOINT INVENTOR, IF ANY	1
Inventor's Name	Inventor: RYU, Kiseon	Date: Aug . 20.20/3
Inventor's Signature s	Signature:	
	LEGAL NAME OF JOINT INVENTOR, IF ANY	
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Inventor's Signature	⇒Signature:	\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$
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Inventor's Signature	*Signature:	
	LEGAL NAME OF JOINT INVENTOR, IF ANY	
Inventor's Name	©Inventor:	Date:
Inventor's Signature	<sup>©</sup> Signature:	
	LEGAL NAME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	Date:
Inventor's Signature	<sup>+</sup> Signature:	
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	LEGAL NAME OF JOINT INVENTOR, IF ANY	
Inventor's Name	*Inventor:	Date:
Inventor's Signature	⇔Signature:	

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PATENT REEL: 031146 FRAME: 0475

**RECORDED: 09/05/2013**