## 502454733 08/12/2013

### PATENT ASSIGNMENT

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

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
Hakseong KIM	06/17/2013
Yoan SHIN	06/14/2013
Sungcheol YOO	06/14/2013
Ohsoon SHIN	06/14/2013
Kijun KIM	06/21/2013
Mochan YANG	06/14/2013

### **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		

Name:	SUNGKYUNKWAN UNIVERSITY FOUNDATION FOR CORPORATE		
Street Address:	Sungkyunkwan Univ., 300, Cheoncheon-Dong, Jangan-Gu		
City:	Suwon-Si, Gyeonggi-Do		
State/Country:	KOREA, REPUBLIC OF		
Postal Code:	440-746		

### PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13984780

## **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

**PATENT** 

REEL: 030990 FRAME: 0206

JF \$40.00 13984/80

502454733

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: 5438-0486PUS1 NAME OF SUBMITTER: Kleithon Sayson Signature: /kleithon sayson/ Date: 08/12/2013 Total Attachments: 6 source=2013-08-12\_ASSIGNMENT\_0879-1402PUS1#page1.tif source=2013-08-12\_ASSIGNMENT\_0879-1402PUS1#page2.tif source=2013-08-12\_ASSIGNMENT\_0879-1402PUS1#page3.tif

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> PATENT REEL: 030990 FRAME: 0207

# BIRCH, STEWART, KOLASCH & BIRCH, LLP

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

## **ASSIGNMENT**

Application No.	13/984,780		Filed	August	09,	2013
Insert Name(s) of Inventor(s)	***(Given Name FAMILY NAME (ALL CAPS))***  WHEREAS, KIM, Hakseong: SHIN, Yoan; YOO, Sungcheol; SHIN, Ohsoon; KIM, Kijun and YANG, Mochan (hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in:					
Insert Title of Invention	METHOD FOR AVOIDI	NG INTER-CELL		RFERENCE I	n WII	RELESS ACCES
	for which an application for undersigned (except in the case	Letters Patent of the se of a provisional ap	United Splication	States of Ameri	ca has b	een executed by the
Insert Date of Signing of Application Insert Name of Assignee Insert Address	on06/14/2013; WHEREAS, LG ELECTRO	NICS INC.			2013	3 ; and
of Assignee  and SUNGKYUNKWAN UNIVERSITY FO  of Sungkyunkwan Univ., 300, Cheoncheor  Republic of Korea						eonggi-Do, 440-7
CHECK BOX IF APPROPRIATI	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 there for in the undersigned has the undersig					
	and to any and all divisions, term or terms for which the sa	, reissues, continuati ame may be granted.	ons, con	versions and ex	ctensions	s thereof for the f
continu	The undersigned agree(s) to	reissue applications	thereof a	nd also to exec	cute sepa	arate assignments

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.

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

Birch, Stewart, Kolasch & Birch, LLP

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 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 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 of 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.

6 - 1

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

	de la companya de la	
Date 2013 6	Name of Inventor The 73 Ala	<u></u>
	s' (signature) KIM, Hakseong	(4)3 (1)3
Date	Name of Inventor	3,
	(signature) SHIN, Yoan	
	Commence of the state of the st	
	一种的 多重 <b>和西洋亚洲</b> 加西 市	
Date	division of inventor of top	
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Date	Name of Inventor start of Fee Code	·
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	and Tredemark Office for iteas	\$ O1
Date	, Name of Inventor	
	(signature) KIM, Kijun	
		*1.*
Date	Name of Inventor	
	(signature) YANG, Mochan	



## BIRCH, STEWART, KOLASCH & BIRCH, LLP

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

## ASSIGNMENT

Application No.

13/984,780

Filed August 09, 2013

Insert Name(s)
of Inventor(s)

\*\*\*(Given Name FAMILY NAME (ALL CAPS))\*\*\*

WHEREAS, KIM, Hakseong; SHIN, Yoan; YOO, Sungcheol; SHIN, Ohsoon; KIM, Kijun and YANG, Mochan (hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in:

Insert Title of Invention

METHOD FOR AVOIDING INTER-CELL INTERFERENCE IN WIRELESS ACCESS SYSTEM

for which an application for Letters Patent of the United States of America has been executed by the undersigned (except in the case of a provisional application)

Insert Date of Signing of Application Insert Name of Assignee Insert Address of Assignee on 06/14/2013; 06/17/2013 and 06/21/2013

; and

#### WHEREAS, LG ELECTRONICS INC.

of 20 Yeouido-dong Yeongdeungpo-gu Seoul 150-721 Republic of Korea

## and SUNGKYUNKWAN UNIVERSITY FOUNDATION FOR CORPORATE

of Sungkyunkwan Univ., 300, Cheoncheon-Dong, Jangan-Gu, Suwon-Si, Gyeonggi-Do, 440-746 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

x in any foreign countries.

NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) to the undersigned in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the undersigned has (have) sold, assigned and transferred, and by these presents does 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 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.

Page 1 of 2

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.

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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	,	Name of Inventor	
·			(signature) KIM, Hakseong
Date	2013.6.14	Name of Inventor	(signature) SHIN, Yoan
Date	2014.6.14	Name of Inventor	(signature) YOO, Sungcheol
Date .	2013.6.14	Name of Inventor	(signature) SHIN, Ohsoon
Date .		Name of Inventor	(signature) KIM, Kijun
Date	20/3.6.14	Name of Inventor	(signature) YANG, Mochan

## BIRCH, STEWART, KOLASCH & BIRCH, LLP

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

## ASSIGNMENT

13/984,780 August 09, 2013 Application No. Filed \*\*\*(Given Name FAMILY NAME (ALL CAPS))\*\*\* Insert Name(s) of Inventor(s) WHEREAS, KIM, Hakseong; SHIN, Yoan; YOO, Sungcheol; SHIN, Ohsoon; KIM, Kijun and YANG, Mochan (hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in: METHOD FOR AVOIDING INTER-CELL INTERFERENCE IN WIRELESS ACCESS Insert Title of Invention SYSTEM for which an application for Letters Patent of the United States of America has been executed by the undersigned (except in the case of a provisional application) 06/14/2013; 06/17/2013 and 06/21/2013 Insert Date of Signing of Application Insert Name WHEREAS, LG ELECTRONICS INC. of Assignee Insert Address of 20 Yeouido-dong Yeongdeungpo-gu Seoul 150-721 Republic of Korea of Assignee and SUNGKYUNKWAN UNIVERSITY FOUNDATION FOR CORPORATE of Sungkyunkwan Univ., 300, Cheoncheon-Dong, Jangan-Gu, Suwon-Si, Gyeonggi-Do, 440-746 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 x | in any foreign countries. IF APPROPRIATE NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) to the undersigned in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the undersigned has (have) sold, assigned and transferred, and by these presents does 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

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Page 1 of 2

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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) KIM, Hakseong
Date,	Name of Inventor (signature) SHIN, Yoan
Date,	Name of Inventor (signature) YOO, Sungcheol
Date,	Name of Inventor (signature) SHIN, Ohsoon
Date $\frac{20/3}{6/2}$ ,	Name of Inventor 72 7 1-3 (signature) KIM, Kijun
Date,	Name of Inventor (signature) YANG, Mochan

Page 2 of 2