

## PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT2973905

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
SUHWOOK KIM	06/26/2014
JINSAM KWAK	06/24/2014
WOOKBONG LEE	06/26/2014
SEUNGHEE HAN	08/07/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	LG ELECTRONICS INC.
<b>Street Address:</b>	20 YEOUIDO-DONG, YEONGDEUNGPO-GU
<b>City:</b>	SEOUL
<b>State/Country:</b>	KOREA, REPUBLIC OF
<b>Postal Code:</b>	150-721
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14377534
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(202)739-3001
<i>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.</i>	
<b>Phone:</b>	202.739.3000
<b>Email:</b>	patents@morganlewis.com, ateckman@morganlewis.com
<b>Correspondent Name:</b>	MARY JANE BOSWELL
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<b>ATTORNEY DOCKET NUMBER:</b>	001082-5181
<b>NAME OF SUBMITTER:</b>	MARY JANE BOSWELL
<b>SIGNATURE:</b>	/Mary Jane Boswell/
<b>DATE SIGNED:</b>	08/08/2014
<b>Total Attachments: 6</b>	
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**PATENT**

**REEL: 033493 FRAME: 0578**

## ASSIGNMENT

WHEREAS WE, the below named inventors, (hereinafter referred to as "Assignors"), have made an invention entitled:

### METHOD AND APPARATUS FOR TRANSCEIVING SIGNALS IN WIRELESS COMMUNICATION SYSTEMS

for which WE filed a national stage application for United States Letters Patent on \_\_\_\_\_ (Application No. \_\_\_\_\_) based on PCT/KR2013/001030; and

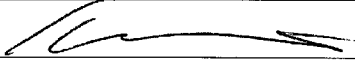
WHEREAS **LG Electronics Inc.** whose post office address is 20 Yeouido-dong, Yeongdeungpo-gu, Seoul 150-721 Republic of Korea (hereinafter referred to as "Assignee"), is desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the application of United States Letters Patent on this invention and the Letters Patent to be issued upon this application;


NOW THEREFORE, be it known that, for good and valuable consideration the receipt of which from Assignee is hereby acknowledged, WE, as assignors, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, OUR entire right, title, and interest in and to this invention and this application, and all divisions, and continuations thereof, and all Letters Patent of the United States which may be granted thereon, and all reissues thereof, and all rights to claim priority on the basis of such applications, and all applications for Letters Patent which may hereafter be filed for this invention in any foreign country and all Letters Patent which may be granted on this invention in any foreign country, and all extensions, renewals, and reissues thereof; and WE hereby authorize and request the Director of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent of this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, WE HEREBY covenant that WE have the full right to convey the interest assigned by this Assignment, and WE have not executed and will not execute any agreement in conflict with this Assignment;

AND, WE HEREBY further covenant and agree that WE will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to US respecting this invention, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, its successors or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper patent protection for this invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

IN TESTIMONY WHEREOF, WE have hereunto set my hands.

Full Name of first Assignor	KIM, Suhwook
Address	LG Institute #533 Hoge 1(il)-dong, Dongan-gu, Anyang-si Gyeonggi-do 431-080 Republic of Korea
Signature	
Date	2014-06-26
Full Name of second Assignor	KWAK, Jinsam
Address	LG Institute #533 Hoge 1(il)-dong, Dongan-gu, Anyang-si Gyeonggi-do 431-080 Republic of Korea
Signature	
Date	

Full Name of third Assignor	LEE, Wookbong
Address	LG Institute #533 Hogle 1(il)-dong, Dongan-gu, Anyang-si Gyeonggi-do 431-080 Republic of Korea
Signature	
Date	2014. 6. 26
Full Name of fourth Assignor	HAN, Seunghee
Address	LG Institute #533 Hogle 1(il)-dong, Dongan-gu, Anyang-si Gyeonggi-do 431-080 Republic of Korea
Signature	
Date	

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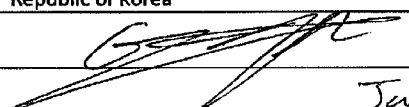
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Address	LG Institute #533 Hogue 1(il)-dong, Dongan-gu, Anyang-si Gyeonggi-do 431-080 Republic of Korea
Signature	
Date	
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Address	LG Institute #533 Hogue 1(il)-dong, Dongan-gu, Anyang-si Gyeonggi-do 431-080 Republic of Korea
Signature	
Date	June 24, 2014

Full Name of third Assignor	LEE, Wookbong
Address	LG Institute #533 Hoge 1(il)-dong, Dongan-gu, Anyang-si Gyeonggi-do 431-080 Republic of Korea
Signature	
Date	
Full Name of fourth Assignor	HAN, Seunghee
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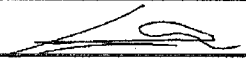
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Address	LG Institute #533 Hoge 1(il)-dong, Dongan-gu, Anyang-si Gyeonggi-do 431-080 Republic of Korea
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Signature	
Date	07/08/14

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Morgan, Lewis & Bockius LLP