502757325 04/07/2014

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2803921

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JONGYEOL RYU	03/20/2014
WAN CHOI	03/20/2014
DONGIN KIM	03/20/2014
HANBYUL SEO	03/20/2014

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:	RESEARCH & BUSINESS FOUNDATION SUNGKYUNKWAN UNIVERSITY	
Name: Street Address:	RESEARCH & BUSINESS FOUNDATION SUNGKYUNKWAN UNIVERSITY 300 CHEONCHEON-DONG, JANGAN-GU	
Street Address:	300 CHEONCHEON-DONG, JANGAN-GU	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14350341

CORRESPONDENCE DATA

Fax Number: (213)623-2211

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via

US Mail.

Phone: 213-623-2221 Email: uspto@lhlaw.com

Correspondent Name: LEE, HONG, DEGERMAN, KANG & WAIMEY

Address Line 1: 660 S. FIGUEROA STREET

Address Line 2: SUITE 2300

Address Line 4: LOS ANGELES, CALIFORNIA 90017

ATTORNEY DOCKET NUMBER: 2101-5712

NAME OF SUBMITTER: HARRY S. LEE

PATENT

502757325 REEL: 032621 FRAME: 0188

SIGNATURE:	/Harry S. Lee/	
DATE SIGNED:	04/07/2014	
Total Attachments: 4		
source=2101-5712-Assignment#page1.tif		
source=2101-5712-Assignment#page2.tif		
source=2101-5712-Assignment#page3.tif		
source=2101-5712-Assignment#page4.tif		

ASSIGNMENT

 (1-8) Insert Name(s) of Inventor(s)
 (1) Jongyeol RYU
 (5)

 (2) Wan CHOI
 (6)

 (3) Dongin KIM
 (7)

 (4) Hanbyul SEO
 (8)

In consideration of the sum of one dollar (\$1.00) and other good and valuable considerations paid to each of the undersigned, the undersigned agree(s) to assign, and hereby does assign, transfer and set over to

- (9) Insert name of Assignee
- (9) LG Electronics Inc. and RESEARCH & BUSINESS FOUNDATION SUNGKYUNKWAN UNIVERSITY
- (10) Insert state of Incorporation of Assignee
- (10) Republic of Korea and Republic of Korea
- (11) Insert address of Assignee
- (11) 20 Yeouido-dong, Yeongdeungpo-gu, Seoul, 150-721, Republic of Korea and 300 Cheoncheon-dong, Jangan-gu, Suwon-si, Gyeonggi-do 440-746, Republic of Korea, respectively.

(hereinafter designated as the Assignee) the entire worldwide right, title and interest in the invention known as

(12) Insert identification of Invention, such as Title, Case Number or Foreign Application Number (12) METHOD FOR TRANSMITTING A DOWNLINK SIGNAL IN A BASE STATION COOPERATIVE WIRELESS COMMUNICATION SYSTEM AND AN APPARATUS FOR SAME

for which the undersigned has (have) executed an application for patent in the United States of America and all patent applications in foreign countries corresponding thereto or based thereon.

- 1) The undersigned agree(s) to execute all papers necessary in connection with any original, reissue, divisional and continuing United States and foreign applications for the above-identified invention and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.
- 2) The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation or division thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.
- 3) The undersigned agree(s) to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.
- 4) The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.
- 5) The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patents of the United States resulting from said application or any division or divisions or continuing applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed any agreement in conflict herewith.

The undersigned hereby appoints **the Attorneys associated with Customer No. 35884** 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 United States Patent and Trademark Office for recordation of this document.

Date:	3/20/2014	Signature of Inventor (1)_	
Date:	3/20/2014	Signature of Inventor (2)_	M
Date:	March 20,201	Signature of Inventor (3)_	1-
Date:		Signature of Inventor (4)	•

ASSIGNMENT

- (1-8) Insert Name(s) of Inventor(s)
 (1) Jongyeol RYU
 (5)

 (2) Wan CHOI
 (6)

 (3) Dongin KIM
 (7)
 - (4) Hanbyul SEO (8)

In consideration of the sum of one dollar (\$1.00) and other good and valuable considerations paid to each of the undersigned, the undersigned agree(s) to assign, and hereby does assign, transfer and set over to

- (9) Insert name of Assignee (9) LG Electronics Inc. and RESEARCH & BUSINESS FOUNDATION SUNGKYUNKWAN UNIVERSITY
- (10) Insert state of Incorporation (10) Republic of Korea and Republic of Korea of Assignee
- (11) Insert address of Assignee (11) 20 Yeouido-dong, Yeongdeungpo-gu, Seoul, 150-721, Republic of Korea and 300 Cheoncheon-dong, Jangan-gu, Suwon-si, Gyeonggi-do 440-746, Republic of Korea, respectively.

(hereinafter designated as the Assignee) the entire worldwide right, title and interest in the invention known as

(12) Insert identification of Invention, such as Title, Case Number or Foreign Application Number (12) METHOD FOR TRANSMITTING A DOWNLINK SIGNAL IN A BASE STATION COOPERATIVE WIRELESS COMMUNICATION SYSTEM AND AN APPARATUS FOR SAME

for which the undersigned has (have) executed an application for patent in the United States of America and all patent applications in foreign countries corresponding thereto or based thereon.

- 1) The undersigned agree(s) to execute all papers necessary in connection with any original, reissue, divisional and continuing United States and foreign applications for the above-identified invention and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.
- 2) The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation or division thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.
- 3) The undersigned agree(s) to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.
- 4) The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.
- 5) The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patents of the United States resulting from said application or any division or divisions or continuing applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed any agreement in conflict herewith.

The undersigned hereby appoints **the Attorneys associated with Customer No. 35884** 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 United States Patent and Trademark Office for recordation of this document.

Date:	Signature of Inventor (1)
Date:	Signature of Inventor (2)
Date:	Signature of Inventor (3)
Date: 2016 3 20	Signature of Inventor (4)



hanbyul.seo/서한별/10.177.139.214/2014-03-20 15:20

RECORDED: 04/07/2014 REEL: 032621 FRAME: 0193