

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT																
NATURE OF CONVEYANCE:	ASSIGNMENT																
CONVEYING PARTY DATA																	
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Kyungkyu KIM</td> <td>06/25/2013</td> </tr> <tr> <td>Minyoung CHUNG</td> <td>06/18/2013</td> </tr> <tr> <td>Daegyun KIM</td> <td>06/24/2013</td> </tr> <tr> <td>Seunghoon PARK</td> <td>06/25/2013</td> </tr> <tr> <td>Seongjae BAE</td> <td>06/18/2013</td> </tr> <tr> <td>Chiwoo LIM</td> <td>06/25/2013</td> </tr> <tr> <td>Bumgon CHOI</td> <td>06/18/2013</td> </tr> </tbody> </table>		Name	Execution Date	Kyungkyu KIM	06/25/2013	Minyoung CHUNG	06/18/2013	Daegyun KIM	06/24/2013	Seunghoon PARK	06/25/2013	Seongjae BAE	06/18/2013	Chiwoo LIM	06/25/2013	Bumgon CHOI	06/18/2013
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<table border="1"> <tr> <td>Name:</td> <td>Samsung Electronics Co., Ltd.</td> </tr> <tr> <td>Street Address:</td> <td>129, Samsung-ro, Yeongtong-gu</td> </tr> <tr> <td>City:</td> <td>Suwon-si, Gyeonggi-do</td> </tr> <tr> <td>State/Country:</td> <td>KOREA, REPUBLIC OF</td> </tr> </table>		Name:	Samsung Electronics Co., Ltd.	Street Address:	129, Samsung-ro, Yeongtong-gu	City:	Suwon-si, Gyeonggi-do	State/Country:	KOREA, REPUBLIC OF								
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PROPERTY NUMBERS Total: 1																	
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13963557</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13963557												
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CORRESPONDENCE DATA																	
<p>Fax Number:</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 202-293-0804</p> <p>Email: usdocketing@jeffersonip.com</p> <p>Correspondent Name: Jefferson IP Law, LLP</p>																	

OP \$40.00 13963557

Address Line 1: 1130 Connecticut Ave., NW, Suite 420
Address Line 4: Washington, DISTRICT OF COLUMBIA 20036

ATTORNEY DOCKET NUMBER: 0203-1123

NAME OF SUBMITTER: George C. Eckert

Signature: /George C. ECKERT/

Date: 08/09/2013

Total Attachments: 8

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RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)

1) Kyungkyu KIM, 2) Minyoung CHUNG, 3) Daegyun KIM,
4) Seunghoon PARK, 5) Seongjae BAE, 6) Chiwoo LIM,
7) Bumgon CHOI

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance/Execution Date(s):

Execution Date(s) 6/18/2013; 6/24/2013; 6/25/2013

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Joint Research Agreement
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☐ Other _____

2. Name and address of receiving party(ies)

Name: Samsung Electronics Co., Ltd.

Internal Address: _____

Street Address: 129, Samsung-ro, Yeongtong-gu

City: Suwon-si, Gyeonggi-do

State: _____

Country: Republic of Korea Zip: _____

Additional name(s) & address(es) attached? ☒ Yes ☐ No

4. Application or patent number(s):

☐ This document is being filed together with a new application.

A. Patent Application No.(s)

13/963,557

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address to whom correspondence concerning document should be mailed:

Name: Jefferson IP Law, LLP

Internal Address: George Eckert

Street Address: 1130 Connecticut Ave., NW, Suite 420

City: Washington

State: DC Zip: 20036

Phone Number: 202-293-0804

Fax Number: 202-403-3587

Email Address: usdocketing@jeffersonip.com

6. Total number of applications and patents involved: One

7. Total fee (37 CFR 1.21(h) & 3.41) \$ _____

- ☐ Authorized to be charged by credit card
☐ Authorized to be charged to deposit account
☐ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

a. Credit Card Last 4 Numbers _____
Expiration Date _____

b. Deposit Account Number _____

Authorized User Name _____

9. Signature:

/George C. ECKERT/ Reg. No. 58,892

Signature

August 9, 2013

Date

George C. Eckert

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

8

Additional name and address of receiving parties:

Name: Research & Business Foundation SUNGKYUNKWAN UNIVERSITY
Address: 300, Cheoncheon-dong, Jangan-gu, Suwon-si,
Gyeonggi-do, Republic of Korea

DOCKET NO.: 0203-1123

CLIENT REF.: YPF201306-0029/US_DMC

SAMSUNG REF.: MJ-201205-039-1-US0

Assignment

WHEREAS, the following inventors, namely 1) Kyungkyu KIM, 2) Minyoung CHUNG, 3) Daegyun KIM, 4) Seunghoon PARK, 5) Seongjae BAE, 6) Chiwoo LIM, and 7) Bumgon CHOI, all, citizens of the Republic of Korea (hereinafter called "Assignors"), having made or discovered certain new, useful and non-obvious improvements in an invention having a working title of:

METHOD AND APPARATUS FOR TWO-HOP LINK COMMUNICATION IN WIRELESS COMMUNICATION NETWORK,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on August 9, 2013, and assigned Serial No. 13/963,557; and,

WHEREAS, Samsung Electronics Co., Ltd., a corporation duly organized under the laws of the Republic of Korea, located and doing business at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea, 443-742 and **Research & Business Foundation SUNGKYUNKWAN UNIVERSITY**, a corporation duly organized under the laws of the Republic of Korea, located and doing business at 300, Cheoncheon-dong, Jangan-gu, Suwon-si, Gyeonggi-do, Republic of Korea (hereinafter called "Assignees"), are desirous of acquiring the entire right, title and interest therein;

NOW, THEREFORE, BE IT KNOWN that for and in good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignors do hereby sell, assign and transfer unto said Assignees the entire and exclusive worldwide right, title and interest in and to all said inventions and discoveries disclosed in said application, and in and to said application, any and all substitutions, divisions, provisionals, conversions of provisionals and continuations thereof, and in and to all Letters Patent, United States and foreign, that may be granted for said inventions and discoveries, and in and to all extensions, renewals and reissues thereof; and the right to file any foreign application and/or claim priority under the provisions of any international treaty or convention arising from this application or any divisional, continuing, substitute or reissue application therefrom. The aforesaid assignment includes the right in and to all income, royalties, damages and payments, now or hereafter due or payable with respect to any Letters Patent which may be granted, and in and to all causes of action (either in law or in equity), and the right to sue, counterclaim, and recover for past, present and future infringement of the rights assigned or to be assigned under this Assignment, as fully and entirely as the same would have been held and enjoyed by Assignors if this sale, assignment and transfer had not been made.

Assignors covenant and agree, without further compensation to said Assignors but at Assignees' expense:

- a. to execute:

DOCKET NO.: 0203-1123

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SAMSUNG REF.: MJ-201205-039-1-US0

- i. all papers to be used in connection with this application and any divisional, continuing, substitute or reissue application thereof, as the Assignees may deem necessary or expedient, and
 - ii. all papers in connection with any interference, litigation, mediation, arbitration or other proceeding relating to this application or any divisional, continuing, substitute or reissue application thereof, as may be necessary or expedient;
- b. to cooperate with the Assignees in every way possible in obtaining evidence and going forward in any interference, litigation, mediation, arbitration or other proceeding relating to said invention, said application and any divisional, continuing, substitute or reissue application thereof;
- c. to communicate to the Assignees any facts relating to said invention, said application and any divisional, continuing, substitute or reissue application thereof, including evidence for any interference, litigation, mediation, arbitration or other proceeding relating to said invention, whenever requested;
- d. to testify in any interference, litigation, mediation, arbitration or other proceeding relating to said invention, said application and any divisional, continuing, substitute or reissue application thereof whenever requested; and
- e. to perform all other affirmative acts which may be necessary or desirable to secure full and complete protection of the inventions and discoveries or that may be necessary or desirable to vest in Assignees the complete title to the inventions and discoveries and Letters Patent hereby conveyed and to enable Assignees to record title.

Assignors hereby authorize and request the United States Patent and Trademark Office or any other issuing authority to issue any and all Letters Patent that may be granted upon this invention and/or this application or any divisional, continuing, substitute or reissue application thereof to the Assignees, its legal representatives, successors and assigns.

Assignors each hereby represents, covenants and warrants that he or she has the full right to convey the entire right, title and interest by this instrument, free of any encumbrances and that no other agreement has been or will be executed in conflict herewith.

The provisions of this Assignment are binding upon Assignors' heirs, legal representatives and/or administrators and assigns.

Assignors hereby grant to the law firm of Jefferson IP Law, LLP of Washington, DC and its attorneys and agents as associated with Customer No. 68103 the authority and power to insert on this instrument any further identification which may be necessary or desirable for purposes of recordation in the United States Patent and Trademark Office or a Patent Office of any foreign country.

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SAMSUNG REF.: MJ-201205-039-1-US0

Signature of Inventor:

Kyungkyu KIM

Kyungkyu KIM

June 25, 2013

Date

Signature of Inventor:

Minyoung CHUNG

Minyoung CHUNG

Date

Signature of Inventor:

Daegyun KIM

Daegyun KIM

June 21, 2013

Date

Signature of Inventor:

Seunghoon PARK

Seunghoon PARK

June 25, 2013

Date

Signature of Inventor:

Seongjae BAE

Seongjae BAE

Date

Signature of Inventor:

Chiwoo LIM

Chiwoo LIM

June 25, 2013

Date

Signature of Inventor:

Bumgon CHOI

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Date

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NOW, THEREFORE, BE IT KNOWN that for and in good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignors do hereby sell, assign and transfer unto said Assignees the entire and exclusive worldwide right, title and interest in and to all said inventions and discoveries disclosed in said application, and in and to said application, any and all substitutions, divisions, provisionals, conversions of provisionals and continuations thereof, and in and to all Letters Patent, United States and foreign, that may be granted for said inventions and discoveries, and in and to all extensions, renewals and reissues thereof; and the right to file any foreign application and/or claim priority under the provisions of any international treaty or convention arising from this application or any divisional, continuing, substitute or reissue application therefrom. The aforesaid assignment includes the right in and to all income, royalties, damages and payments, now or hereafter due or payable with respect to any Letters Patent which may be granted, and in and to all causes of action (either in law or in equity), and the right to sue, counterclaim, and recover for past, present and future infringement of the rights assigned or to be assigned under this Assignment, as fully and entirely as the same would have been held and enjoyed by Assignors if this sale, assignment and transfer had not been made.

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 - ii. all papers in connection with any interference, litigation, mediation, arbitration or other proceeding relating to this application or any divisional, continuing, substitute or reissue application thereof, as may be necessary or expedient;
- b. to cooperate with the Assignees in every way possible in obtaining evidence and going forward in any interference, litigation, mediation, arbitration or other proceeding relating to said invention, said application and any divisional, continuing, substitute or reissue application thereof;
- c. to communicate to the Assignees any facts relating to said invention, said application and any divisional, continuing, substitute or reissue application thereof, including evidence for any interference, litigation, mediation, arbitration or other proceeding relating to said invention, whenever requested;
- d. to testify in any interference, litigation, mediation, arbitration or other proceeding relating to said invention, said application and any divisional, continuing, substitute or reissue application thereof whenever requested; and
- e. to perform all other affirmative acts which may be necessary or desirable to secure full and complete protection of the inventions and discoveries or that may be necessary or desirable to vest in Assignees the complete title to the inventions and discoveries and Letters Patent hereby conveyed and to enable Assignees to record title.

Assignors hereby authorize and request the United States Patent and Trademark Office or any other issuing authority to issue any and all Letters Patent that may be granted upon this invention and/or this application or any divisional, continuing, substitute or reissue application thereof to the Assignees, its legal representatives, successors and assigns.

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SAMSUNG REF.: MJ-201205-039-1-US0

Signature of Inventor:

Kyung Kyu KIM

Date

Signature of Inventor:

Min Young Chung
Min Young CHUNG

June 18, 2013
Date

Signature of Inventor:

Daegyun KIM

Date

Signature of Inventor:

Seung-Hoon PARK

Date

Signature of Inventor:

Sueng Jae Bae
Sueng Jae BAE

June 18, 2013.
Date

Signature of Inventor:

Chiwoo LIM

Date

Signature of Inventor:

Bum-Gon CHOI
Bum-Gon CHOI

June 18, 2013.
Date