

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

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>Hyeong-Sook PARK</td><td>10/22/2007</td></tr><tr><td>Jun-Woo KIM</td><td>10/22/2007</td></tr><tr><td>Kyung-Yeol SOHN</td><td>10/22/2007</td></tr><tr><td>Youn-Ok PARK</td><td>10/22/2007</td></tr></tbody></table>	Name	Execution Date	Hyeong-Sook PARK	10/22/2007	Jun-Woo KIM	10/22/2007	Kyung-Yeol SOHN	10/22/2007	Youn-Ok PARK	10/22/2007	
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RECEIVING PARTY DATA											
<table border="1"><tr><td>Name:</td><td>Electronics and Telecommunications Research Institute</td></tr><tr><td>Street Address:</td><td>161, Gajeong-dong, Yuseong-gu,</td></tr><tr><td>City:</td><td>Daejeon</td></tr><tr><td>State/Country:</td><td>KOREA, REPUBLIC OF</td></tr></table>	Name:	Electronics and Telecommunications Research Institute	Street Address:	161, Gajeong-dong, Yuseong-gu,	City:	Daejeon	State/Country:	KOREA, REPUBLIC OF			
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<table border="1"><tr><td>Name:</td><td>SAMSUNG ELECTRONICS CO., LTD.</td></tr><tr><td>Street Address:</td><td>416, Maetan-dong, 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:	416, Maetan-dong, Yeongtong-gu,	City:	Suwon-si, Gyeonggi-do	State/Country:	KOREA, REPUBLIC OF			
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Street Address:	416, Maetan-dong, Yeongtong-gu,										
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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>11925686</td></tr></tbody></table>	Property Type	Number	Application Number:	11925686							
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Application Number:	11925686										
CORRESPONDENCE DATA											
Fax Number: (202)403-3587 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>											
Phone: 202-293-0804											
Email: usdocketing@jeffersonip.com											
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Address Line 4: Washington, DISTRICT OF COLUMBIA 20036											
ATTORNEY DOCKET NUMBER:	0204-0031										

PATENT

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REEL: 020046 FRAME: 0667

OP \$40.00 11925686

NAME OF SUBMITTER:

Raymond B. Persino

Total Attachments: 4

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PATENT

REEL: 020046 FRAME: 0668

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) Hyeong-Sook PARK, 2) Jun-Woo KIM, 3) Kyung-Yeol SOHN
4) Youn-Ok PARK

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

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

Execution Date(s) October 22, 2007

- ☒ 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: Electronics and Telecommunications Research Institute

Internal Address: _____

Street Address: 161, Gajeong-dong, Yuseong-gu

City: Daejeon-city

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)
11/925,686

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

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

Name: Raymond B. Persino

Internal Address: Jefferson IP Law, LLP

Street Address: 1730 M Street, NW, Suite 807

City: Washington

State: District of Columbia 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:

/Raymond B. Persino/ Reg. #58,082

Signature

October 26, 2007

Date

Raymond B. Persino
Name of Person Signing

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

4

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

Recordation of Assignment
Page 2

#2. Name and Address of Receiving Parties (con't)

Name: **Samsung Electronics Co., Ltd.**

Internal Address:

Street Address: **416, Maetan-dong, Yeongtong-gu**

City: **Suwon-si, Gyeonggi-do**

Country: **Republic of Korea** Zip: _____

Attorney Docket No.:
Client Docket No.:

Assignment

WHEREAS, the following inventors, namely 1) **PARK, Hyeong-Sook**, 2) **KIM, Jun-Woo**, 3) **SOHN, Kyung-Yeol**, and 4) **PARK, Youn-Ok**, all citizens of the Republic of Korea and residing respectfully at 1) 202-901, Maebong Maeul Apt., Hagi-dong, Yuseong-gu, Daejeon, Republic of Korea, 2) 504-102, Songnimmaeul 5-Danji Apt., 545, Hagi-dong, Yuseong-gu, Daejeon, Republic of Korea, 3) 105-1101, Jindalrae Apt., 312-1, Wolpyung-dong, Seo-ku, Daejeon, Republic of Korea, and 4) 109-401, Cheonggu Narae Apt., Jeonmin-dong, Yuseong-gu, Daejeon, 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:

APPARATUS AND METHOD OF COMPENSATING FOR FREQUENCY OFFSET IN OFDMA SYSTEM,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on October 26, 2007, and assigned Serial No. 11/925,686; and, RBP
10/26/07

WHEREAS, **Electronics and Telecommunications Research Institute**, a research institute duly organized under the laws of the Republic of Korea, located and doing business at 161, Gajeong-dong, Yuseong-gu, Daejeon 305-350, Republic of Korea, and **Samsung Electronics Co., Ltd.**, a corporation duly organized under the laws of the Republic of Korea, located and doing business at 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea (hereinafter called "Assignees"), is 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:
 - 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

Attorney Docket No.:
Client Docket No.:

- 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, their legal representatives, successors and assigns.

Assignors each hereby represent, covenant and warrant 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 each 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 their 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.

Signature of First Inventor:

Park Hyeong Sook
PARK, Hyeong-Sook

Oct. 22, 2007
Date

Signature of Second Inventor:

Kim Jun-Woo
KIM, Jun-Woo

Oct. 22, 2007
Date

Signature of Third Inventor:

Sohn Kyung Yeol
SOHN, Kyung-Yeol

Oct. 22, 2007
Date

Signature of Fourth Inventor:

Park Youn Ok
PARK, Youn-Ok

Oct. 22, 2007
Date