

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>Mi-Hyun LEE</td><td>01/15/2009</td></tr><tr><td>Ho-Kyu CHOI</td><td>01/15/2009</td></tr><tr><td>Jae-Weon CHO</td><td>01/15/2009</td></tr><tr><td>Ki-Chun CHO</td><td>01/15/2009</td></tr><tr><td>Tae-Young KIM</td><td>01/15/2009</td></tr><tr><td>Chi-Woo LIM</td><td>01/15/2009</td></tr></tbody></table>	Name	Execution Date	Mi-Hyun LEE	01/15/2009	Ho-Kyu CHOI	01/15/2009	Jae-Weon CHO	01/15/2009	Ki-Chun CHO	01/15/2009	Tae-Young KIM	01/15/2009	Chi-Woo LIM	01/15/2009	
Name	Execution Date														
Mi-Hyun LEE	01/15/2009														
Ho-Kyu CHOI	01/15/2009														
Jae-Weon CHO	01/15/2009														
Ki-Chun CHO	01/15/2009														
Tae-Young KIM	01/15/2009														
Chi-Woo LIM	01/15/2009														
RECEIVING PARTY DATA															
Name:	Samsung Electronics Co., Ltd.														
Street Address:	416, Maetan-dong, Yeongtong-gu														
City:	Suwon-si, Gyeonggi-do														
State/Country:	REPUBLIC OF KOREA														
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>12354563</td></tr></tbody></table>	Property Type	Number	Application Number:	12354563											
Property Type	Number														
Application Number:	12354563														
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															
Correspondent Name: Jefferson IP Law, LLP															
Address Line 1: 1730 M Street, NW															
Address Line 2: Suite 807															
Address Line 4: Washington, DISTRICT OF COLUMBIA 20036															
ATTORNEY DOCKET NUMBER:	0201-0205														
NAME OF SUBMITTER:	Raymond B. Persino														

OP \$40.00 12354563

500755703

PATENT
REEL: 022115 FRAME: 0467

Total Attachments: 3

source=0201-0205AssignmentAsFiled#page1.tif

source=0201-0205AssignmentAsFiled#page2.tif

source=0201-0205AssignmentAsFiled#page3.tif

**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) Mi-Hyun LEE, 2) Ho-Kyu CHOI, 3) Jae-Weon CHO,
4) Ki-Chun CHO, 5) Tae-Young KIM, and 6) Chi-Woo LIM

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

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

Execution Date(s) January 15, 2009

- ☒ 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: 416, Maetan-dong, 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)

12/354,563

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: Raymond B. Persino

Street Address: 1730 M Street, NW, Suite 807

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:

/Raymond B. PERSINO/ Reg. No. 58,082

January 15, 2009

Signature

Date

Raymond B. Persino

Name of Person Signing

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

3

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

Assignment

WHEREAS, the following inventors, namely 1) **Mi-Hyun LEE**, 2) **Ho-Kyu CHOI**, 3) **Jae-Weon CHO**, 4) **Ki-Chun CHO**, 5) **Tae-Young KIM**, and 6) **Chi-Woo LIM**, all citizens of the Republic of Korea and residing respectfully at 1) 202, 602-182, Namhyeon-dong, Gwanak-gu, Seoul, Republic of Korea, 2) #113-601, Sibeomdanji Hanshin APT., Seohyeon-dong, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea, 3) #104-1103, Hyundai I-PARK APT., Mangpo-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea, 4) #946-406, Byeokjeokgol 9-danji APT., Yeongtong 2-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea, 5) #308-103, Kkachimaetul Sinwon APT., Gumi-dong, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea, and 6) #805-705, Byeokjeokgol 8-danji APT., Yeongtong-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, 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 FOR SIGNAL TRANSMISSION/RECEPTION BASED ON HARQ SCHEME IN WIRELESS MOBILE COMMUNICATION SYSTEM,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on January 15, 2009, and assigned Serial No. 12/354,563; and,

RBP
1/15/09

WHEREAS, **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 "Assignee"), 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 Assignee 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 Assignee's 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 Assignee 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 Assignee 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 Assignee any facts relating to said invention, said application and any divisional, continuing, substitute or reissue application thereof, including evidence

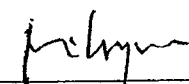

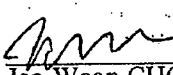
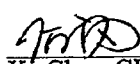


- for any interference, litigation, mediation, arbitration or other proceeding relating to said invention, whenever requested;
- d. to testify in any interference, litigation, mediation, arbitration or other proceeding relating to said invention, said application and any divisional, continuing, substitute 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 Assignee the complete title to the inventions and discoveries and Letters Patent hereby conveyed and to enable Assignee 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 Assignee, its 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 Assignor's 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.

Signature of First Inventor:	 Mi-Hyun LEE	<u>Jan 15, 2009</u> Date
Signature of Second Inventor:	 Ho-Kyu CHOI	<u>Jan 15, 2009</u> Date
Signature of Third Inventor:	 Jae-Weon CHO	<u>Jan 15, 2009</u> Date
Signature of Fourth Inventor:	 Ki-Chun CHO	<u>Jan 15, 2009</u> Date
Signature of Fifth Inventor:	 Tae-Young KIM	<u>Jan 15, 2009</u> Date
Signature of Sixth Inventor:	 Chi-Woo LIM	<u>Jan 15, 2009</u> Date