

## 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>Mostafa El Khamy</td> <td>02/28/2013</td> </tr> <tr> <td>Jinhong Wu</td> <td>02/28/2013</td> </tr> <tr> <td>Heejin Roh</td> <td>03/06/2013</td> </tr> <tr> <td>Jungwon Lee</td> <td>02/28/2013</td> </tr> <tr> <td>Inyup Kang</td> <td>02/28/2013</td> </tr> </tbody> </table>		Name	Execution Date	Mostafa El Khamy	02/28/2013	Jinhong Wu	02/28/2013	Heejin Roh	03/06/2013	Jungwon Lee	02/28/2013	Inyup Kang	02/28/2013
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RECEIVING PARTY DATA													
<table border="1"> <tr> <td>Name:</td> <td>Samsung Electronics Co., Ltd.</td> </tr> <tr> <td>Street Address:</td> <td>416 Maetan-Dong,</td> </tr> <tr> <td>Internal Address:</td> <td>Suwon City</td> </tr> <tr> <td>City:</td> <td>Yeongtong-Gu</td> </tr> <tr> <td>State/Country:</td> <td>KOREA, REPUBLIC OF</td> </tr> <tr> <td>Postal Code:</td> <td>443-742</td> </tr> </table>		Name:	Samsung Electronics Co., Ltd.	Street Address:	416 Maetan-Dong,	Internal Address:	Suwon City	City:	Yeongtong-Gu	State/Country:	KOREA, REPUBLIC OF	Postal Code:	443-742
Name:	Samsung Electronics Co., Ltd.												
Street Address:	416 Maetan-Dong,												
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PROPERTY NUMBERS Total: 1													
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CORRESPONDENCE DATA													
<p>Fax Number: 4085121911  <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 408-512-1907        Email: Efs@ipinvestlaw.com        Correspondent Name: Intellectual Property Investment Law Gro        Address Line 1: 3150 De La Cruz Blvd.        Address Line 2: Suite 206        Address Line 4: Santa Clara, CALIFORNIA 95054</p>													
ATTORNEY DOCKET NUMBER:	48-248												

OP \$40.00 13788603

NAME OF SUBMITTER:	Stanley Chang
	This document serves as an Oath/Declaration (37 CFR 1.63).
<b>Total Attachments: 7</b> source=48-248 Assignment Statement#page1.tif source=48-248 Assignment Statement#page2.tif source=48-248 Assignment Statement#page3.tif source=48-248 Assignment Statement#page4.tif source=48-248 Assignment Statement#page5.tif source=48-248 Assignment Statement#page6.tif source=48-248 Assignment Statement#page7.tif	

**ASSIGNMENT STATEMENT**

☒ Oath/Declaration Statement Included

WHEREAS, the undersigned (hereinafter termed Assignor(s)) has/have invented certain new and useful improvements in

**COMMUNICATION SYSTEM WITH SIGNAL-TO-NOISE RATIO ADJUSTMENT  
MECHANISM AND METHOD OF OPERATION THEREOF**

for which a United States patent application has been executed on or before the date of this assignment.

WHEREAS, Samsung Electronics Co., Ltd., a Korean Corporation, having a place of business at 416 Maetan-Dong, Yeongtong-Gu, Suwon City, Gyeonggi-Do 443-742, South Korea (hereinafter termed Assignee), is desirous of acquiring the entire right, title and interest in and to said application and said invention and improvements thereon, and in and to Letters Patents thereon when granted in the United States and foreign countries.

NOW, THEREFORE, for good and valuable consideration received by said Assignor(s) from said Assignee(s), the receipt of which is hereby acknowledged by said Assignor(s):

1. Said Assignor(s) hereby state that I/we have reviewed and understand the contents of the above-identified specification, including the claims.
2. Said Assignor(s) does not know/do not know and does not believe/do not believe the same was ever known or used in the United States of America before this invention thereof or more than one year prior to this application, and that the same was not in public use or on sale in the United States of America more than one year prior to this application. I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR 1.56.
3. Said Assignor(s) does hereby sell, assign, transfer and convey unto said Assignee(s), the entire right, title and interest in and to said application and said invention and in and to any and all improvements on said invention and in and to any and all improvements on said invention heretofore or hereafter made or acquired by said Assignor(s); and in and to any and all Letters Patent on said invention and/or said improvements that may be granted in the United States or any foreign country, including each and every Letters Patent granted on any application which is a division, continuation, substitution, renewal, or continuation-in-part of any said application, and in and to each and every reissue or extension of said Letters Patent.
4. Said Assignor(s) hereby covenants and agrees to cooperate with said Assignee(s) where said Assignee(s) may enjoy to the fullest extent the right, title and interest herein conveyed. Such cooperation shall include (a) prompt execution of all papers (prepared at the expense of Assignee(s)) which are deemed necessary or desirable by Assignee(s) to perfect in it the right, title and interest herein conveyed, (b) prompt execution of all petitions, oaths, specifications or other papers (prepared at the expense of Assignee(s)) which are deemed necessary or desirable by Assignee(s) for prosecuting said application, for filing and prosecuting divisional, continuation, substitution, renewal, continuation-in-part, or additional applications in the United States and/or foreign countries covering said invention and/or said improvements, for filing and prosecuting applications for reissuance of letters patent included herein, or for interference proceedings involving said invention and/or said improvements and (c) prompt assistance and cooperation in the prosecution of interference proceedings involving said invention and/or said improvements and in the adjudication of said Letters Patent, particularly by the disclosure of facts and the production of evidence relating to said invention and/or said improvements, provided the expenses which may be incurred by said Assignor(s) in lending such assistance and cooperation shall be paid by the Assignee(s).

5. The terms, covenants and conditions of this assignment shall inure to the benefit of said Assignee(s), its successors, assigns and/or other legal representatives and shall be binding upon said Assignor(s), his/her heirs, legal representatives and assigns.

6. Said Assignor(s) hereby warrants and represents that he/she has not entered into any assignment, contract or understanding in conflict herewith.

#### Authorization to Permit Access To Application by Participating Office

☒ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified patent application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified patent application is filed to have access to the above-identified patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the above-identified patent application with respect to: 1) the above-identified patent application –as-filed; 2) any foreign application to which the above-identified patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application; and 3) any U.S. application-as-filed form which benefit is sought in the above-identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Offices.

7. Said Assignor(s) hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT international application which designated at least one country other than the United States listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

#### Prior Foreign Application(s):

Number	Country	Day/Month/Year filed	Priority Claimed	
			Yes	No

8. Said Assignor(s) hereby claim the benefit under 35 USC 119(e) of any United States provisional application(s) listed below:

#### Prior Provisional Application(s):

Serial No.	Filing Date
61/607,691	March 7, 2012
61/607,698	March 7, 2012

9. Said Assignor(s) hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s), or Section 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty

to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

**Prior U.S. Application(s):**

<u>Serial No.</u>	<u>Filing Date</u>

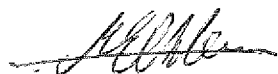
I/we hereby authorize and request my/our attorney, Stanley M. Chang, Esq., of Intellectual Property Investment Law Group, to insert the filing date and application number of said application, when known, on the line below

Application No.: 13/788,603Filing Date: March 7, 2013

.....

The above-identified application was made or authorized to be made by the Assignor(s), who believe(s) that I am/we are the original inventor(s) or an original joint inventor(s) of a claimed invention in the application.

Said Assignor(s) hereby acknowledge that any willful false statement made in this Assignment is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both..

Inventor's signature: Date: 2/28/2013

Full name of inventor:

Mostafa El Khamy

Citizenship:

Egypt

Residence Address:


9350 Hillery Dr, Apt 11306San Diego, CA 92126 US

Post Office Address:

Same as Residence

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Inventor's signature:  Date: 02/28/2013

Full name of inventor:

Jinhong Wu

Citizenship:

CN

Residence Address:

7109 Arroyo Grande Road  
San Diego, CA 92129 US

Post Office Address:

Same as Residence

Docket No.: 48-248 (SISA Ref. MSL12-4G01-A2)

ASSIGNMENT STATEMENT

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Inventor's signature: \_\_\_\_\_

*Heejin Roh*

Date: \_\_\_\_\_

*3/6/2013*

Full name of inventor: \_\_\_\_\_

Heejin Roh

Citizenship: \_\_\_\_\_

KR

Residence Address: \_\_\_\_\_

3763 Carmel View Road #3

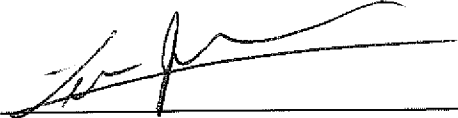
San Diego, CA 92130 US

Post Office Address: \_\_\_\_\_

Same as Residence

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Inventor's signature:  Date: 2/28/13

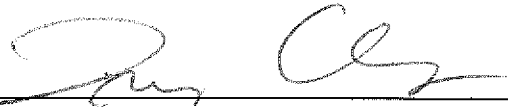
Full name of inventor: Jungwon Lee  
Citizenship: KR  
Residence Address: 5291 Birch Hill Pt.  
San Diego, CA 92130 US  
  
Post Office Address: Same as Residence



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Inventor's signature: \_\_\_\_\_



Date: \_\_\_\_\_

2/28/13

Full name of inventor:

Inyup Kang

Citizenship:

US

Residence Address:

10825 Cherry Hill Dr.San Diego, CA 92130 US

Post Office Address:

Same as Residence