

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>Hyeong Sook PARK</td> <td>02/03/2012</td> </tr> <tr> <td>Jun Woo KIM</td> <td>02/03/2012</td> </tr> <tr> <td>Youn Ok PARK</td> <td>02/03/2012</td> </tr> </tbody> </table>		Name	Execution Date	Hyeong Sook PARK	02/03/2012	Jun Woo KIM	02/03/2012	Youn Ok PARK	02/03/2012
Name	Execution Date								
Hyeong Sook PARK	02/03/2012								
Jun Woo KIM	02/03/2012								
Youn Ok PARK	02/03/2012								
RECEIVING PARTY DATA									
Name:	ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE								
Street Address:	161 Gajeong-dong, Yuseong-gu								
City:	Daejeon-si								
State/Country:	KOREA, REPUBLIC OF								
Postal Code:	305-700								
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>13453450</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13453450				
Property Type	Number								
Application Number:	13453450								
CORRESPONDENCE DATA									
Fax Number:	(202)408-0924								
Phone:	202-371-8976								
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Correspondent Name:	Rabin & Berdo, P.C.								
Address Line 1:	1101 14th St., N.W., Suite 500								
Address Line 4:	Washington, DISTRICT OF COLUMBIA 20005								
ATTORNEY DOCKET NUMBER:	ESSE-104								
NAME OF SUBMITTER:	Robert H. Berdo, Jr.								
Total Attachments: 2 source=ESSE-104-asg#page1.tif source=ESSE-104-asg#page2.tif									

OP \$40.00 13453450

IP20110051
9/09

Attorney Reference _____

ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS PARK, Hyeong Sook; KIM, Jun Woo and PARK, Youn Ok, hereinafter referred to collectively as the assignor, has invented a certain improvement relating to,

METHOD AND APPARATUS FOR ESTIMATING SIGNAL TO NOISE RATIO IN WIRELESS COMMUNICATION SYSTEM

[X] the inventor(s) declaration for said application being executed concurrently with the execution of this instrument; said application to be filed in the United States Patent and Trademark Office;
[] said application having been filed in the United States Patent and Trademark Office on _____, authorization being hereby given to my attorneys, Steven M. Rabin, Robert H. Berdo, Jr. and Allen Wood of RABIN & BERDO, P.C., 1101 14th Street, N.W., Washington, D.C. 20005, to insert here in parentheses (Application Serial No. _____) the application serial number of said application when known;
[] the specification of which was filed under the Patent Cooperation Treaty on _____, Serial No. _____, the United States of America being designated.

AND WHEREAS Electronics and Telecommunications Research Institute of Republic of Korea having a place of business at 161 Gajeong-dong, Yuseong-gu, Daejeon-si 305-700 Republic of Korea, hereinafter referred to as the assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof;

NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged, said assignor hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assignor might or could have held and enjoyed the same, if this assignment had not been made.

AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

WITNESS:

Signature: _____

Name: _____

Address: _____

ASSIGNOR:

Signature: Park Hyeong Sook

Name: PARK, Hyeong Sook

Date: 2012. 2. 3

RABIN & BERDO, P.C., Washington, D.C.

ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTERS PATENT

PATENT

REEL: 028090 FRAME: 0401

IP20110051

Page 2 of 2

WITNESS:

Signature: _____

Name: _____

Address: _____

ASSIGNOR:

Signature: Kim, Jun Woo

Name: KIM, Jun Woo

Date: 2012.2.3

WITNESS:

Signature: _____

Name: _____

Address: _____

ASSIGNOR:

Signature: Park Youn Ok

Name: PARK, Youn Ok

Date: 2012.2.3

RABIN & BERDO, P.C., Washington, D.C.

PATENT

RECORDED: 04/23/2012

REEL: 028090 FRAME: 0402