

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT																		
NATURE OF CONVEYANCE:	ASSIGNMENT																		
CONVEYING PARTY DATA																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th style="width: 30%;">Execution Date</th> </tr> </thead> <tbody> <tr><td>Doo Hyun SEONG</td><td>09/11/2009</td></tr> <tr><td>Min Seok OH</td><td>09/11/2009</td></tr> <tr><td>Jin Soo CHOI</td><td>09/10/2009</td></tr> <tr><td>Seong Ho MOON</td><td>09/10/2009</td></tr> <tr><td>Eun Jong LEE</td><td>09/10/2009</td></tr> <tr><td>Kyu Jin PARK</td><td>09/10/2009</td></tr> <tr><td>Jae Hoon CHUNG</td><td>09/10/2009</td></tr> <tr><td>Hyung Ho PARK</td><td>09/09/2009</td></tr> </tbody> </table>		Name	Execution Date	Doo Hyun SEONG	09/11/2009	Min Seok OH	09/11/2009	Jin Soo CHOI	09/10/2009	Seong Ho MOON	09/10/2009	Eun Jong LEE	09/10/2009	Kyu Jin PARK	09/10/2009	Jae Hoon CHUNG	09/10/2009	Hyung Ho PARK	09/09/2009
Name	Execution Date																		
Doo Hyun SEONG	09/11/2009																		
Min Seok OH	09/11/2009																		
Jin Soo CHOI	09/10/2009																		
Seong Ho MOON	09/10/2009																		
Eun Jong LEE	09/10/2009																		
Kyu Jin PARK	09/10/2009																		
Jae Hoon CHUNG	09/10/2009																		
Hyung Ho PARK	09/09/2009																		
RECEIVING PARTY DATA																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 20%;">Name:</td><td>LG Electronics Inc.</td></tr> <tr><td>Street Address:</td><td>20, Yeouido-dong, Yeongdeungpo-gu</td></tr> <tr><td>City:</td><td>Seoul</td></tr> <tr><td>State/Country:</td><td>REPUBLIC OF KOREA</td></tr> <tr><td>Postal Code:</td><td>150-721</td></tr> </table>		Name:	LG Electronics Inc.	Street Address:	20, Yeouido-dong, Yeongdeungpo-gu	City:	Seoul	State/Country:	REPUBLIC OF KOREA	Postal Code:	150-721								
Name:	LG Electronics Inc.																		
Street Address:	20, Yeouido-dong, Yeongdeungpo-gu																		
City:	Seoul																		
State/Country:	REPUBLIC OF KOREA																		
Postal Code:	150-721																		
PROPERTY NUMBERS Total: 1																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Property Type</th> <th style="width: 70%;">Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12594663</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12594663														
Property Type	Number																		
Application Number:	12594663																		
CORRESPONDENCE DATA																			
<p>Fax Number: (703)205-8050</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 703-205-8000</p> <p>Email: abebg@bskb.com</p> <p>Correspondent Name: Birch, Stewart, Kolasch & Birch, LLP</p> <p>Address Line 1: P. O. Box 747</p> <p>Address Line 4: Falls Church, VIRGINIA 22040-0747</p>																			
ATTORNEY DOCKET NUMBER:	5438-0163PUS1																		

CH \$40.00 12594663

500982612

PATENT

REEL: 023339 FRAME: 0894

NAME OF SUBMITTER:

Esther H. Chong

Total Attachments: 6

source=20091006Assignment#page1.tif

source=20091006Assignment#page2.tif

source=20091006Assignment#page3.tif

source=20091006Assignment#page4.tif

source=20091006Assignment#page5.tif

source=20091006Assignment#page6.tif

BIRCH, STEWART, KOLASCH & BIRCH, LLP

UNITED STATES PATENT RIGHTS, OR
UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

ASSIGNMENT

Application No. 12/594,663

Filed 10/5/2009

Insert Name(s)
of Inventor(s)

[Given Name FAMILY NAME (ALL CAPS)]

WHEREAS, SEONG, Doo Hyun, OH, Min Seok, CHOI, Jin Soo, MOON, Seong Ho, LEE, Eun Jong, PARK, Kyu Jin, CHUNG, Jae Hoon, PARK, Hyung Ho (hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in:

Insert Title
of Invention

METHOD OF PERFORMING CHANNEL SOUNDING IN FREQUENCY
DUPLEX SYSTEM

for which an application for Letters Patent of the United States of America has been executed by the undersigned (except in the case of a provisional application)

Insert Date
of Signing of
Application

on 9/9/2009, 9/10/2009 and 9/11/2009; and

Insert Name
of Assignee
Insert Address
of Assignee

WHEREAS, LG Electronics Inc.

of 20, Yeouido-dong, Yeongdeungpo-gu, Seoul 150-721 Republic of Korea

its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and

CHECK BOX
IF APPROPRIATE

☒ in any foreign countries.

NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) to the undersigned in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the undersigned has (have) sold, assigned and transferred, and by these presents does sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries;

and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree (s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date September 11, 2009,

Name of Inventor

(signature) SEONG, Doo Hyun

Date _____,

Name of Inventor

(signature) OH, Min Seok

Date _____,

Name of Inventor

(signature) CHOI, Jin Soo

Date _____,

Name of Inventor

(signature) MOON, Seong Ho

Date _____,

Name of Inventor

(signature) LEE, Eun Jong

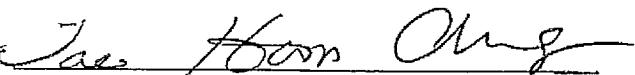
Date 2009. 9. 10,

Name of Inventor


(signature) PARK, Kyu Jin

Date 2009. 9. 10,

Name of Inventor


(signature) CHUNG, Jae Hoon

Date 2009. 9. 9,

Name of Inventor


(signature) PARK, Hyung Ho

BIRCH, STEWART, KOLASCH & BIRCH, LLPUNITED STATES PATENT RIGHTS, OR
UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS**ASSIGNMENT**Application No. 12/594,663Filed 10/5/2009Insert Name(s)
of Inventor(s)

*** (Given Name FAMILY NAME (ALL CAPS)) ***

WHEREAS, SEONG, Doo Hyun, OH, Min Seok, CHOI, Jin Soo, MOON, Seong Ho, LEE, Eun Jong, PARK, Kyu Jin, CHUNG, Jae Hoon, PARK, Hyung Ho (hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in:

Insert Title
of Invention

METHOD OF PERFORMING CHANNEL SOUNDING IN FREQUENCY
DUPLEX SYSTEM

for which an application for Letters Patent of the United States of America has been executed by the undersigned (except in the case of a provisional application)

Insert Date
of Signing of
Application

on 9/9/2009, 9/10/2009 and 9/11/2009; and

Insert Name
of Assignee
Insert Address
of Assignee

WHEREAS, LG Electronics Inc.

of 20, Yeouido-dong, Yeongdeungpo-gu, Seoul 150-721 Republic of Korea

its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and

CHECK BOX
IF APPROPRIATE

☒ in any foreign countries.

NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) to the undersigned in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the undersigned has (have) sold, assigned and transferred, and by these presents does sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries;

and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree (s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date _____, Name of Inventor _____
(signature) SEONG, Doo Hyun

Date Sep. 11, 2009, Name of Inventor MIN-SEOK OH
(signature) OH, Min Seok

Date 2009. 9. 10, Name of Inventor _____
(signature) CHOI, Jin Soo

Date 2009. 9. 10, Name of Inventor _____
(signature) MOON, Seong Ho

Date 2009. 9. 10, Name of Inventor _____
(signature) LEE, Eun Jong

Date 2009. 9. 10,

Name of Inventor

(signature) PARK, Kyu Jin

Date 2009. 9. 10,

Name of Inventor

(signature) CHUNG, Jae Hoon

Date 2009. 9. 9,

Name of Inventor

(signature) PARK, Hyung Ho