502496671 09/16/2013

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Jinyoung CHUN	07/29/2013
Kitae KIM	07/29/2013
Sunam KIM	07/29/2013
Jiwon KANG	07/29/2013
Binchul IHM	09/11/2013
Sungho PARK	07/29/2013

RECEIVING PARTY DATA

Name:	LG ELECTRONICS INC.
Street Address:	20 Yeouido-dong, Yeongdeungpo-gu
City:	Seoul
State/Country:	KOREA, REPUBLIC OF
Postal Code:	150-721

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14004965

CORRESPONDENCE DATA

Fax Number: 7032058050

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 703-205-8000

Email: mailroom@bskb.com, brian.mukuria@bskb.com

Correspondent Name: Birch, Stewart, Kolash & Birch, LLP

Address Line 1: P.O. Box 747

Address Line 4: Falls Church, VIRGINIA 22040-0747

ATTORNEY DOCKET NUMBER: 0465-3950PUS1

NAME OF SUBMITTER: BRIAN MUKURIA

PATENT REEL: 031212 FRAME: 0805 P \$40.00 14004965

502496671

Signature:	/brian.mukuria/
Date:	09/16/2013
Total Attachments: 6 source=2013-09-13_ASSIGNMENT_0465-3950PUS1#page1.tif source=2013-09-13_ASSIGNMENT_0465-3950PUS1#page2.tif source=2013-09-13_ASSIGNMENT_0465-3950PUS1#page3.tif source=2013-09-13_ASSIGNMENT_0465-3950PUS1#page4.tif source=2013-09-13_ASSIGNMENT_0465-3950PUS1#page5.tif source=2013-09-13_ASSIGNMENT_0465-3950PUS1#page6.tif	

PATENT REEL: 031212 FRAME: 0806

ATTORNEY DOCKET NO. 0465-3950PUS1

BIRCH, STEWART, KOLASCH & BIRCH, LLP

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

ASSIGNMENT

Filed September 13, 2013 14/004,965 Application No. ***(Given Name FAMILY NAME (ALL CAPS))*** Insert Name(s) of Inventor(s) WHEREAS, CHUN, Jinyoung; KIM, Kitae; KIM, Sunam; KANG, Jiwon; IHM, Binchul and PARK, Sungho (hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in: **Insert Title** METHOD FOR TRANSCEIVING CHANNEL STATE INFORMATION AND of Invention TRANSCEIVING DEVICE 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) on July 29, 2013 and September 11, 2013 **Insert Date** ; and of Signing of Application **Insert Name** WHEREAS, LG ELECTRONICS INC. of Assignee Insert Address of 20 Yeouido-dong, Yeongdeungpo-gu, Seoul 150-721 Republic of Korea of Assignee 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 x in any foreign countries. IF APPROPRIATE 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.

Attorney Docket No. 0465-3950PUSI

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 .	July, 29, 2013	Name of Inventor	(signature) CHUN, Jinyoung
Date _	Ily 29. 20/3	Name of Inventor	(signature) KIM, Kitae
Date ₋	29 . Tely 20/3	Name of Inventor	(signature) KIM, Sunam
Date .	29 July 2013	Name of Inventor	(signature) KANG, Jiwon
Date _.		Name of Inventor	(signature) IHM, Binchul

11FCCM1206US02

KBK Ref. OPP-TZ-2011-0449-US-00/CT

Date Joh. July 2013 Name of Inventor

(signature) PARK, Sungho

ATTORNEY DOCKET NO. **0465-3950PUS**1

BIRCH, STEWART, KOLASCH & BIRCH, LLP

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

ASSIGNMENT

Filed September 13, 2013 14/004,965 Application No. ***(Given Name FAMILY NAME (ALL CAPS))*** Insert Name(s) of Inventor(s) WHEREAS, CHUN, Jinyoung; KIM, Kitae; KIM, Sunam; KANG, Jiwon; IHM, Binchul and PARK, Sungho (hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in: METHOD FOR TRANSCEIVING CHANNEL STATE INFORMATION AND Insert Title of Invention TRANSCEIVING DEVICE 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) on July 29, 2013 September 11, 2013 ; and Insert Date of Signing of Application WHEREAS, LG ELECTRONICS INC. Insert Name of Assignee of 20 Yeouido-dong, Yeongdeungpo-gu, Seoul 150-721 Republic of Korea Insert Address of Assignee 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 x in any foreign countries. CHECK BOX IF APPROPRIATE 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

PATENT
REEL: 031212 FRAME: 0810

term or terms for which the same may be granted.

Attorney Docket No. 0465-3950PUS1

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) CHUN, Jinyoung
Date	Name of Inventor	(signature) KIM, Kitae
Date	Name of Inventor	(signature) KIM, Sunam
Date	Name of Inventor	(signature) KANG, Jiwon
Date 11, Sep, 2	Name of Inventor	(signature) IHM, Binchul

Attorney Docket No. 0465-3950PUS1

11FCCM1206US02		KBK Ref. OPP-12-2011-0449-08-00/C1
Date	Name of Inventor	
**************************************	(signatu	re) PARK, Sungho

Page 6 / 6

PATENT REEL: 031212 FRAME: 0812

Birch, Stewart, Kolasch & Birch, LLP

RECORDED: 09/16/2013