# OP \$40,00 1313279

### PATENT ASSIGNMENT

# Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
Young Hyun JEON	06/03/2011
Tak Ki YU	06/03/2011
Jong Hyung KWUN	06/03/2011
Chan Ho MIN	06/02/2011
Min Suk KANG	06/03/2011
Hyu Dae KIM	06/03/2011
Bang Chul JUNG	06/02/2011
Dong Won LEE	06/02/2011

#### **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

Name:	KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY	
Street Address:	335, Gwahak-ro(373-1 Guseong-dong), Yuseong-gu	
City:	Daejeon Metropolitan	
State/Country:	REPUBLIC OF KOREA	

#### PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	13132794	

### **CORRESPONDENCE DATA**

Fax Number: (202)403-3587

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

Phone: 202-293-0804

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PATENT REEL: 026387 FRAME: 0960

501554145

Correspondent Name: Jefferson IP Law, LLP

Address Line 1: 1130 Connecticut Ave., NW

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Address Line 4: Washington, DISTRICT OF COLUMBIA 20036

ATTORNEY DOCKET NUMBER: 0203-0479

NAME OF SUBMITTER: Soo Oh

Total Attachments: 17

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PATENT REEL: 026387 FRAME: 0961 Form **PTO-1595** (Rev. 07/05) OMB No. 0651-0027 (exp. 6/30/2008)

## 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) 2. Name and address of receiving party(ies) 1) Young Hyun JEON, 2) Tak Ki YU, 3) Jong Hyung KWUN, 4) Chan Ho MIN, 5) Min Suk KANG, 6) Hyu Dae KIM, 7) Bang Chul JUNG, and 8) Dong Won LEE Name: Samsung Electronics Co., Ltd. Internal Address: Additional name(s) of conveying party(ies) attached? Yes 🗸 No 3. Nature of conveyance/Execution Date(s): Street Address: 416, Maetan-dong, Yeongtong-gu Execution Date(s) June 3, 2011 and June 2, 2011 ✓ Assignment Merger City: Suwon-city, Gyeonggi-do Security Agreement Change of Name Government Interest Assignment Country: Republic of Korea Zip: Executive Order 9424, Confirmatory License Other 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) B. Patent No.(s) 13/132,794 Additional numbers attached? Yes V No 5. Name and address to whom correspondence 6. Total number of applications and patents concerning document should be mailed: involved: One Name: Jefferson IP Law, LLP **7. Total fee** (37 CFR 1.21(h) & 3.41) \$ Internal Address: Raymond B. PERSINO Authorized to be charged by credit card Authorized to be charged to deposit account **Enclosed** Street Address: 1130 Connecticut Ave., NW, Suite 420 None required (government interest not affecting title) 8. Payment Information City: Washington a. Credit Card Last 4 Numbers \_\_\_\_\_ State: District of Columbia Zip:20036 Expiration Date \_\_\_\_\_ Phone Number: <u>202-293-0804</u> b. Deposit Account Number Fax Number: <u>202-403-3587</u> Authorized User Name \_\_\_\_ Email Address: <u>usdocketing@jeffersonip.com</u> 9. Signature: /Raymond B. PERSINO/ Reg. #58,082 June 3, 2011 Signature Date Total number of pages including cover sheet, attachments, and documents: Name of Person Signing Raymond B. Persino 17

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

REEL: 026387 FRAME: 0962

Page 2 Recordation of assignment

Additional name and address of receiving parties:

Name: KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY

Address: 335, Gwahak-ro(373-1 Guseong-dong), Yuseong-gu,

Daejeon Metropolitan, Republic of Korea

PATENT REEL: 026387 FRAME: 0963

Client Docket No.: YPF200911-0051/US DMC

## <u>Assignment</u>

WHEREAS, the following inventors, namely 1) Young Hyun JEON, 2) Tak Ki YU, 3) Jong Hyung KWUN, 4) Chan Ho MIN, 5) Min Suk KANG, 6) Hyu Dae KIM, 7) Bang Chul JUNG and 8) Dong Won LEE, all citizens of the Republic of Korea and residing respectfully at 1) No. 502-803, Geumho Apt., Sutaek 3-dong, Guri-si, Gyeonggi-do, Republic of Korea, 2) No. 301-1803, Seowon Maeul Hyundai I-Park Apt. 3 Danji, Sanghyeon-1 dong, Suji-gu, Yongin-si, Gyeonggi-do, Republic of Korea, 3) No. 101-1302, Yongsan Park e-pyeonhan Saesang, 417, Hangangno 2-ga, Yongsan-gu, Seoul, Republic of Korea, 4) No. 102-807, Sungan Chunggu Apt., 295, Seongnae 1-dong, Gangdong-gu, Seoul, Republic of Korea, 5) 102, 208-2, Sinseong-dong, Yuseong-gu, Daejeon Metropolitan, Republic of Korea, 6) 1506-6, Daemyeong 11-dong, Nam-gu, Daegu Metropolitan, Republic of Korea, 7) B-919, Nexus Valley, 1369, Dunsan-dong, Yuseong-gu, Daejeon Metropolitan, Republic of Korea and 8) 1309, The Rich Town Vill, Dunsan 1-dong, Seo-gu, Daejeon Metropolitan, 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:

# DATA TRANSFER METHOD, DATA TRANSMISSION APPARATUS, AND COMMUNICATION SYSTEM IN MULTI-HOP RELAY SYSTEM,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on <u>June 3, 2011</u>, and assigned Serial No. <u>13/132,794</u>; and,

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 and Korea Advanced Institute of Science and Technology, a corporation duly organized under the laws of the Republic of Korea, located and doing business at 335, Gwahak-ro (373-1 Guseong-dong), Yuseong-gu, Daejeon Metropolitan, Republic of Korea (hereinafter called "Assignees"), are 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:
  - 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

1

Client Docket No.; YPF200911-0051/US\_DMC

- 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;
- 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;
- 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.

Signature of First Inventor:	younghyun Spon	June 3, 2011
	Young Hyun JEON	Date
Signature of Second Inventor:		
	Tak Ki YU	Date
Signature of Third Inventor:	Sonofymy Krown	June 3, 2011
	Jong Hyung KWUN	Date

Attorney Docket No.: 0203-0479 Client Docket No.: YPF200911-0051/US_DMC	
Signature of Fourth Inventor: Chan Mo Min Chan Ho MIN	June 2nd, 20/1
Signature of Fifth Inventor:	
Min Suk KANG	Date
Signature of Sixth Inventor;	
Нун Dae КІМ	Date
Signature of Seventh Inventor:	
Bang Chul JUNG	Date
Signature of Eighth Inventor:	
Dong Won LEE	Date

- 3 -

Client Docket No.: YPF200911-0051/US\_DMC

## ${f Assignment}$

WHEREAS, the following inventors, namely 1) Young Hyun JEON, 2) Tak Ki YU, 3) Jong Hyung KWUN, 4) Chan Ho MIN, 5) Min Suk KANG, 6) Hyu Dae KIM, 7) Bang Chul JUNG and 8) Dong Won LEE, all citizens of the Republic of Korea and residing respectfully at 1) No. 502-803, Geumho Apt., Sutaek 3-dong, Guri-si, Gyeonggi-do, Republic of Korea, 2) No. 301-1803, Seowon Macul Hyundai I-Park Apt. 3 Danji, Sanghyeon-1 dong, Suji-gu, Yongin-si, Gyeonggi-do, Republic of Korea, 3) No. 101-1302, Yongsan Park e-pyeonhan Saesang, 417, Hangangno 2-ga, Yongsan-gu, Seoul, Republic of Korea, 4) No. 102-807, Sungan Chunggu Apt., 295, Seongnae 1-dong, Gangdong-gu, Seoul, Republic of Korea, 5) 102, 208-2, Sinseong-dong, Yuseong-gu, Daejeon Metropolitan, Republic of Korea, 6) 1506-6, Daemyeong 11-dong, Nam-gu, Daegu Metropolitan, Republic of Korea and 8) 1309, The Rich Town Vill, Dunsan 1-dong, Seo-gu, Daejeon Metropolitan, 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:

# DATA TRANSFER METHOD, DATA TRANSMISSION APPARATUS, AND COMMUNICATION SYSTEM IN MULTI-HOP RELAY SYSTEM.

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 and Korea Advanced Institute of Science and Technology, a corporation duly organized under the laws of the Republic of Korea, located and doing business at 335, Gwahak-ro (373-1 Guseong-dong), Yuseong-gu, Daejeon Metropolitan, Republic of Korea (hereinafter called "Assignees"), are 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:

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- 1 -

Client Docket No.: YPF200911-0051/US DMC

- 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;
- 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;
- 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.

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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.

Signature of First Inventor:		
	Young Hyun JEON	Date
Signature of Second Inventor:	Tak KG YU	June 3,201
Signature of Third Inventor:		
	Jong Hyung KWUN	Date

	Chan Ho MIN	Date
Signature of Fifth Inventor:	MMM)	June 3,2011
	Min Suk KANG	Date
Signature of Sixth Inventor:		
	Hyu Dae KIM	Date
Signature of Seventh Inventor:		
	Bang Chul JUNG	Date

Dong Won LEE

Attorney Docket No.: 0203-0479 Client Docket No.: YPF200911-0051/US\_DMC

Date

Client Docket No.: YPF200911-0051/US\_DMC

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- 1 -

PATENT \* REEL: 026387 FRAME: 0970

Client Docket No.: YPF200911-0051/US\_DMC

- 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;
- 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;
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Signature of First Inventor	r:	
	Young Hyun JEON	Date
Signature of Second Inventor	r:	
	Tak Ki YU	Date
Signature of Third Inventor	:	
	Jong Hyung KWUN	Date

Attorney Docket No.: 0203-0479 Client Docket No.: YPF200911-005	SI/US_DMC	
Signature of Fourth Inventor:		
	Chan Ho MIN	Date
Signature of Fifth Inventor:		
•	Min Suk KANG	Date
Signature of Sixth Inventor:	7h HAM	2011.6:3
	Hyu Dae KIM	Date .
Signature of Seventh Inventor:		
	Bang Chul JUNG	Date
Signature of Eighth Inventor:		

Dong Won LEE

Date

Client Docket No.: YPF200911-0051/US\_DMC

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Client Docket No.: YPF200911-0051/US DMC

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Signature of First Inventor:		
	Young Hyun JEON	Date
Signature of Second Inventor:		
	Tak Ki YU	Date
Signature of Third Inventor:		
	Jong Hyung KWUN	Date

Attorney Docket No.: 0203-0479 Client Docket No.: YPF200911-005	I/US_DMC	·
Signature of Fourth Inventor:		
	Chan Ho MIN	Date
Signature of Fifth Inventor:		
	Min Suk KANG	Date
Signature of Sixth Inventor:		
	Hyu Dae KIM	Date
Signature of Seventh Inventor:	Bang Chul JUNG	Jun. 2, 201 Date
Signature of Eighth Inventor:		

Dong Won LEE

Date

Client Docket No.: YPF200911-0051/US DMC

## <u>Assignment</u>

WHEREAS, the following inventors, namely 1) Young Hyun JEON, 2) Tak Ki YU, 3) Jong Hyung KWUN, 4) Chan Ho MIN, 5) Min Suk KANG, 6) Hyu Dac KIM, 7) Bang Chul JUNG and 8) Dong Won LEE, all citizens of the Republic of Korea and residing respectfully at 1) No. 502-803, Geumho Apt., Sutaek 3-dong, Guri-si, Gyeonggi-do, Republic of Korea, 2) No. 301-1803, Seowon Maeul Hyundai I-Park Apt. 3 Danji, Sanghyeon-1 dong, Suji-gu, Yongin-si, Gyeonggi-do, Republic of Korea, 3) No. 101-1302, Yongsan Park e-pyeonhan Saesang, 417, Hangangno 2-ga, Yongsan-gu, Seoul, Republic of Korea, 4) No. 102-807, Sungan Chunggu Apt., 295, Seongnae 1-dong, Gangdong-gu, Seoul, Republic of Korea, 5) 102, 208-2, Sinseong-dong, Yuseong-gu, Daejeon Metropolitan, Republic of Korea, 6) 1506-6, Daemyeong 11-dong, Nam-gu, Daegu Metropolitan, Republic of Korea, 7) B-919, Nexus Valley, 1369, Dunsan-dong, Yuseong-gu, Daejeon Metropolitan, Republic of Korea and 8) 1309, The Rich Town Vill, Dunsan 1-dong, Seo-gu, Daejeon Metropolitan, 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:

# DATA TRANSFER METHOD, DATA TRANSMISSION APPARATUS, AND COMMUNICATION SYSTEM IN MULTI-HOP RELAY SYSTEM,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on <u>June 3, 2011</u>, and assigned Serial No. 13/132,794; and

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 and Korea Advanced Institute of Science and Technology, a corporation duly organized under the laws of the Republic of Korea, located and doing business at 335, Gwahak-ro (373-1 Guseong-dong), Yuseong-gu, Daejeon Metropolitan, Republic of Korea (hereinafter called "Assignees"), are 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:
  - 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

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- 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;
- 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:		
	Young Hyun JEON	Date
Signature of Second Inventor:		
	Tak Ki YU	Date
Signature of Third Inventor:		
	Jong Hyung KWUN	Date

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Signature of Fourth Inventor:

Chan Ho MIN

Date

Signature of Fifth Inventor:

Min Suk KANG

Date

Signature of Sixth Inventor:

Hyu Dae KIM

Date

Signature of Seventh Inventor:

Bang Chul JUNG

Date

Signature of Eighth Inventor:

Dong Won LEE

Jun 2 2011

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PATENT REEL: 026387 FRAME: 0978