

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4434473

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|---|---|
| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT  |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT  |
| <b>CONVEYING PARTY DATA</b>   |   |
| <b>Name</b>   | <b>Execution Date</b>                                 |
| GYUNGOCK KIM  | 09/17/2013  |
| HYUNDAI PARK  | 10/10/2013  |
| IN GYOO KIM   | 10/10/2013  |
| SANG HOON KIM   | 10/10/2013  |
| KI SEOK JANG  | 10/10/2013  |
| SANG GI KIM   | 10/10/2013  |
| JIHO JOO  | 10/10/2013  |
| YONGSEOK CHOI   | 10/11/2013  |
| HYUK JE KWON  | 10/10/2013  |
| JAEGYU PARK   | 10/10/2013  |
| SUN AE KIM  | 10/10/2013  |
| JIN HYUK OH   | 10/10/2013  |
| MYUNG JOON KWACK  | 10/10/2013  |
| <b>RECEIVING PARTY DATA</b>   |   |
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| <b>Street Address:</b>  | 161, GAJEONG-DONG, YUSEONG-GU                         |
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| <b>State/Country:</b>   | KOREA, REPUBLIC OF                                    |
| <b>Postal Code:</b>   | 34129   |
| <b>PROPERTY NUMBERS Total: 1</b>  |   |
| <b>Property Type</b>  | <b>Number</b>   |
| <b>Application Number:</b>  | 15607726  |
| <b>CORRESPONDENCE DATA</b>  |   |
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| <b>Phone:</b>   | 202-371-8976  |
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| <b>Correspondent Name:</b>  | RABIN & BERDO, P.C.                                   |
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PATENT

|   |  |
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| <b>Address Line 4:</b>  | WASHINGTON, D.C. 20005                                     |
| <b>ATTORNEY DOCKET NUMBER:</b>  | KOR-451D2  |
| <b>NAME OF SUBMITTER:</b>   | JUN-HWA JEONG  |
| <b>SIGNATURE:</b>   | /Jun-Hwa Jeong/  |
| <b>DATE SIGNED:</b>   | 05/30/2017   |
|   | This document serves as an Oath/Declaration (37 CFR 1.63). |
| <b>Total Attachments: 4</b><br>source=03_KOR-451D2_ASG-DEC#page1.tif<br>source=03_KOR-451D2_ASG-DEC#page2.tif<br>source=03_KOR-451D2_ASG-DEC#page3.tif<br>source=03_KOR-451D2_ASG-DEC#page4.tif |  |

Attorney Reference:  
Client Reference: IP20130310

**ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT**

WHEREAS KIM, Gyungock; PARK, Hyundai; KIM, In Gyoo; KIM, Sang Hoon; JANG, Ki Seok; KIM, Sang Gi; JOO, Jiho; CHOI, Yongseok; KWON, Hyuk Je; PARK, Jaegyul; KIM, Sun Ae; OH, Jin Hyuk; and KWACK, myung joon of Republic of Korea hereinafter referred to collectively as the assignor and inventor, has invented a certain improvement relating to

OPTICAL INPUT/OUTPUT DEVICE, OPTICAL ELECTRONIC SYSTEM INCLUDING THE SAME, AND METHOD OF MANUFACTURING THE SAME

said application being attached hereto;

said application having been filed in the United States Patent and Trademark Office on

\_\_\_\_\_, as Application Serial No. \_\_\_\_\_, and was amended on \_\_\_\_\_ (if applicable);

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 161, Gajeong-dong, Yuseong-gu, Daejeon 305-700, Republic of Korea hereinafter referred to as the assignee or applicant, 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.

As an above-named inventor, I hereby declare that the above-identified application was made or authorized to be made by me, and that I am the original inventor or an original joint inventor of a claimed invention in the application.

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

Address all correspondence and telephone calls to Rabin & Berdo, P.C., 1101 14<sup>th</sup> Street, N.W., Suite 500, Washington, D.C. 20005, Telephone: (202) 371-8976; Fax: (202) 408-0924, Customer No. 23995.

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ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

**WITNESS:**

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**ASSIGNOR (THE FIRST INVENTOR):**

Signature: Gyungock Kim  
Legal Name: KIM, Gyungock  
Date: Sep. 17, 2013

**WITNESS:**

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**ASSIGNOR (THE SECOND INVENTOR):**

Signature: [Signature]  
Legal Name: PARK, Hyundai  
Date: Oct. 10, 2013

**WITNESS:**

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
\_\_\_\_\_

**ASSIGNOR (THE THIRD INVENTOR):**

Signature: Kim In Gyoo  
Legal Name: KIM, In Gyoo Address: \_\_\_\_\_  
Date: Oct. 10, 2013

**WITNESS:**

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**ASSIGNOR (THE FOURTH INVENTOR):**

Signature: [Signature]  
Legal Name: KIM, Sang Hoon  
Date: Oct. 10, 2013

**WITNESS:**

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**ASSIGNOR (THE FIFTH INVENTOR):**

Signature: [Signature]  
Legal Name: JANG, Ki Seok  
Date: Oct. 10, 2013

Continued -Page 2  
ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

**WITNESS:**

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**ASSIGNOR (THE SIXTH INVENTOR):**

Signature: Sang Gi KIM  
Legal Name: KIM, Sang Gi  
Date: Oct. 10, 2013

**WITNESS:**

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**ASSIGNOR (THE SEVENTH INVENTOR):**

Signature: Jiho  
Legal Name: JOO, Jiho  
Date: Oct. 10. 2013

**WITNESS:**

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**ASSIGNOR (THE EIGHTH INVENTOR):**

Signature: Yongseok  
Legal Name: CHOI, Yongseok  
Date: Oct. 11. 2013

**WITNESS:**

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**ASSIGNOR (THE NINETH INVENTOR):**

Signature: Hyuk Je  
Legal Name: KWON, Hyuk Je  
Date: Oct. 10. 2013

**WITNESS:**

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**ASSIGNOR (THE TENTH INVENTOR):**

Signature: Jaegyu  
Legal Name: PARK, Jaegyu  
Date: Oct. 10. 2013

Continued -Page 2  
ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

**WITNESS:**

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**ASSIGNOR (THE ELEVENTH INVENTOR):**

Signature:                     *smk*                      
Legal Name:                     KIM, Sun Ae                      
Date:           OCT. 10. 2013          

**WITNESS:**

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**ASSIGNOR (THE TWELVETH INVENTOR):**

Signature:                     *th*                      
Legal Name:                     OH, Jin Hyuk                      
Date:           OCT. 10. 2013          

**WITNESS:**

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**ASSIGNOR (THE THIRTEENTH INVENTOR):**

Signature:                     *kg*                      
Legal Name:                     KWACK, myung joon                      
Date:           OCT. 10. 2013