501764630 12/21/2011

PATENT ASSIGNMENT

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
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| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|----------------|----------------|
| Seung-Woo LEE | 12/05/2011 |
| Bhum-Cheol LEE | 12/05/2011 |
| Jung-Hee LEE | 12/05/2011 |

RECEIVING PARTY DATA

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| City: | Daejeon-si | |
| State/Country: | REPUBLIC OF KOREA | |
| Postal Code: | 305-700 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number | |
|---------------------|----------|--|
| Application Number: | 13328269 | |

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|-------------------------|----------------|
| NAME OF SUBMITTER: | Sang Chul Kwon |

Total Attachments: 1

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PATENT

REEL: 027427 FRAME: 0706

*** \$40.00 133282**

U.S. ASSIGNMENT

S&H 1/00

IN CONSIDERATION of the sum of One Dollar (\$1.00), and of other good and valuable consideration paid to the undersigned inventor(s) (hereinafter, "ASSIGNOR") by

(Insert Name(s) & Address(es) of ASSIGNEE(S))

Electronics and Telecommunications Research Institute

161 Gajeong-dong, Yuseong-gu, Daejeon-si, 305-700 Republic of Korea

(hereinafter, "ASSIGNEE"), the receipt of which is hereby acknowledged, the undersigned ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE the entire and exclusive right, title and interest to the invention entitled (Title of Invention)

relating to International Patent Application PCT/JP ____ and/or for which application for Letters Patent of the United States was executed on even date herewith or, if not so executed, was: (a) executed on; (b) filed on, Serial No.; Any registered attorney of STAAS & HALSEY LLP, 1201 New York Avenue, N.W., Suite 700 Washington, D.C. 20005 (202/434-1500) is hereby authorized to insert in (b) the specified data, when known.

and to said application and all Letters Patent(s) of the United States granted on said application and any continuation, division, renewal, substitute, reissue or reexamination application based thereon, for the full term or terms for which the said Letters Patent(s) may be granted and including any extensions thereof (collectively, hereinafter, "said application(s) and Letters Patent(s)").

The ASSIGNOR agree(s), when requested by said ASSIGNEE and without charge to but at the expense of said ASSIGNEE, to do all acts which the ASSIGNEE may deem necessary, desirable or expedient, for securing, maintaining and enforcing protection for said invention, including in the preparation and prosecution of said application(s) and the issuance of said Letters Patent(s), in any interference, reissue, reexamination, or public use proceeding, and in any litigation or other legal proceeding which may arise or be declared in relation to same, such acts to include but not be limited to executing all papers, including separate assignments and declarations, taking all rightful oaths, providing sworn testimony, and obtaining and producing evidence.

| IN WITNESS WHEREOF, the undersigned inv (Typed Name & Signature of Inventor(s)) | entor(s) has (have) affixed his/h (Date) | er/their signature(s). (Typed Name & Signature of Witness(es)) |
|--|---|---|
| 1) Sayur Lee Seung-Woo KEE | t/pec./2011 | |
| 2) Bhum-Cheol LEE | os/pec/2011 | |
| 3) Jung-Hee LEE | 05 /Dec./2011 | |
| 4) | | |
| 5) | | |
| | | |

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