# 503655424 01/20/2016

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3702058

| SUBMISSION TYPE:  |  | 1  | NEW ASSIGNMENT  |             |                 |
|---|--|--|---|-------------|-----------------|
| NATURE OF CONVEYANCE:   |  | ŀ  | ASSIGNMENT  |             |                 |
| CONVEYING PARTY I   | DATA   |  |   |             |                 |
|   |  | Ν  | ame   |             | Execution Date  |
| PANASONIC INTELLECTUAL PROPE  |  |  | TY CORPORATION OF AMERIC  | CA ·        | 12/25/2015      |
| RECEIVING PARTY D   | ΑΤΑ  |  |   |             |                 |
| Name:   | HUAWE  | EI TEC   | CHNOLOGIES CO., LTD.  |             |                 |
| Street Address:   | HUAWE  | EI ADN   | INISTRATION BUILDING  |             |                 |
| Internal Address:   | BANTIA   | AN, LO   | NGGANG DISTRICT   |             |                 |
| City:   | SHENZ  | HEN  |   |             |                 |
| State/Country:  | CHINA  |  |   |             |                 |
| Postal Code:  | 518129   | )  |   |             |                 |
| Property Type 720   |  | 739232   | Number  |             |                 |
|   |  | 739232   | 22  |             |                 |
|   |  |  |   |             |                 |
|   |  |  |   |             |                 |
| CORRESPONDENCE  |  | (100)0   | 17 5004   |             |                 |
| Fax Number:   | (  | • •  | 77-5901<br>mail address first: if that is ups   | uccessful   | it will he sent |
| Fax Number:<br><i>Correspondence will</i>   | be sent to   | the e-   | 77-5901<br>mail address first; if that is uns<br>t is unsuccessful, it will be sen  |             |                 |
| Fax Number:<br><i>Correspondence will<br/>using a fax number, i</i><br>Phone:   | be sent to<br>f provided   | • <i>the e-</i><br><i>I; if tha</i><br>86-755  | <i>mail address first; if that is uns<br/>t is unsuccessful, it will be sen</i><br>-28785411  |             |                 |
| Fax Number:<br><i>Correspondence will<br/>using a fax number, i</i><br>Phone:<br>Email:   | be sent to<br>f provided   | <b>the e-</b><br>I; if tha<br>86-755<br>uspate   | <i>mail address first; if that is uns<br/>t is unsuccessful, it will be sen</i><br>-28785411<br>nt@huawei.com   |             |                 |
| Fax Number:<br><i>Correspondence will<br/>using a fax number, in</i><br>Phone:<br>Email:<br>Correspondent Name  | be sent to<br>f provided   | <i>the e-<br/>l; if tha</i><br>86-755<br>uspate<br>HUAW                                  | <i>mail address first; if that is uns<br/>t is unsuccessful, it will be sen</i><br>-28785411<br>nt@huawei.com<br>EI TECHNOLOGIES CO., LTD.  | t via US Ma |                 |
| Fax Number:<br><i>Correspondence will<br/>using a fax number, in</i><br>Phone:<br>Email:<br>Correspondent Name<br>Address Line 1:   | be sent to<br>f provided   | <i>the e-<br/>l; if tha</i><br>86-755<br>uspate<br>HUAW<br>BUILD                         | <i>mail address first; if that is uns<br/>t is unsuccessful, it will be sen</i><br>-28785411<br>nt@huawei.com<br>EI TECHNOLOGIES CO., LTD.<br>NG G1-2, HUAWEI INDUSTRIAL  | t via US Ma |                 |
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| Fax Number:<br><i>Correspondence will</i><br><i>using a fax number, in</i><br>Phone:<br>Email:<br>Correspondent Name<br>Address Line 1:<br>Address Line 2:<br>Address Line 4:<br>ATTORNEY DOCKET N<br>NAME OF SUBMITTER   | be sent to<br>f provided<br>:<br>:   | the e-<br>l; if tha<br>86-755<br>uspate<br>HUAW<br>BUILD<br>BANTI,<br>SHEN2              | <i>mail address first; if that is uns<br/>t is unsuccessful, it will be sen</i><br>-28785411<br>nt@huawei.com<br>EI TECHNOLOGIES CO., LTD.<br>NG G1-2, HUAWEI INDUSTRIAL<br>AN,LONGGANG DISTRICT<br>THEN, CHINA 518129                                      | t via US Ma |                 |
| Fax Number:<br><i>Correspondence will</i><br><i>using a fax number, in</i><br>Phone:<br>Email:<br>Correspondent Name<br>Address Line 1:<br>Address Line 2:<br>Address Line 2:<br>Address Line 4:<br>ATTORNEY DOCKET N<br>NAME OF SUBMITTER<br>SIGNATURE:  | be sent to<br>f provided<br>:<br>:   | the e-<br>if the<br>86-755<br>uspate<br>HUAW<br>BUILD<br>BANTI,<br>SHEN2                 | mail address first; if that is uns<br>t is unsuccessful, it will be sen<br>-28785411<br>nt@huawei.com<br>EI TECHNOLOGIES CO., LTD.<br>NG G1-2, HUAWEI INDUSTRIAL<br>AN,LONGGANG DISTRICT<br>ZHEN, CHINA 518129<br>34969455US08<br>SHUANG LIU                | t via US Ma |                 |
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| Fax Number:<br><i>Correspondence will</i><br><i>using a fax number, in</i><br>Phone:<br>Email:<br>Correspondent Name<br>Address Line 1:<br>Address Line 2:<br>Address Line 2:<br>Address Line 4:<br>ATTORNEY DOCKET N<br>NAME OF SUBMITTER<br>SIGNATURE:<br>DATE SIGNED:<br>Total Attachments: 3<br>source=img-120170439- | be sent to<br>f provided<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>:                     | e1.tif   | mail address first; if that is uns<br>t is unsuccessful, it will be sen<br>-28785411<br>nt@huawei.com<br>EI TECHNOLOGIES CO., LTD.<br>NG G1-2, HUAWEI INDUSTRIAL<br>AN,LONGGANG DISTRICT<br>ZHEN, CHINA 518129<br>34969455US08<br>SHUANG LIU<br>Shuang Liu/ | t via US Ma |                 |
| Fax Number:<br><i>Correspondence will</i><br><i>using a fax number, in</i><br>Phone:<br>Email:<br>Correspondent Name<br>Address Line 1:<br>Address Line 2:<br>Address Line 2:<br>Address Line 4:<br>ATTORNEY DOCKET N<br>NAME OF SUBMITTER<br>BIGNATURE:<br>DATE SIGNED:<br>Total Attachments: 3                          | be sent to<br>f provided<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>:<br>: | e1.tif<br>e2.tif   | mail address first; if that is uns<br>t is unsuccessful, it will be sen<br>-28785411<br>nt@huawei.com<br>EI TECHNOLOGIES CO., LTD.<br>NG G1-2, HUAWEI INDUSTRIAL<br>AN,LONGGANG DISTRICT<br>ZHEN, CHINA 518129<br>34969455US08<br>SHUANG LIU<br>Shuang Liu/ | t via US Ma |                 |



#### SCHEDULE B

### **TRANSFER DOCUMENTS**

Panasonic Corporation, a Japanese corporation having a place of business at 1006 Oaza, Kadoma, Kadoma City, Osaka 571-8501, Japan and Panasonic Intellectual Property Corporation of America, a Delaware corporation with its principal place of business at 20000 Mariner Avenue Suite 200, Torrance, CA 90503,USA (collectively, "Assignor"), hereby irrevocably assigns to HUAWEI TECHNOLOGIES CO., LTD., ("Assignee"), as of the date set forth below, the entire right, title and interest for the United States of America and its territorial possessions, and all foreign countries including all rights of priority, in inventions disclosed in the patents identified in the following table ("Assigned Patents"), together with all issued patents, rights to inventions and pending and future applications for patents under U.S. law or regulation or of any foreign country with respect to the patentable inventions (i) from which any of the foregoing arise, including, without limitation, divisions, continuations, continuations-in-part, substitutions, reexaminations, reissues, extensions or foreign counterparts therefrom and (ii) which are listed in Schedule A(collectively, "Assigned Patents"), and all causes of action, rights, and remedies arising under any such Assigned Patent prior to, on or after the Effective Date of this Agreement and all claims for damages by reason of past, present or future infringement or other unauthorized use of such Assigned Patents with the right to sue for and collect such damages.

| Application<br>Number | Application<br>Date | Issue Number | lssue<br>Date |
|-----------------------|---------------------|--------------|---------------|
| US10/490338           | 2004/3/22           | 7392322      | 2008/6/24     |
| CN03801289.8          | 2004/4/13           | 03801289.8   | 2009/3/25     |
| GB03746888.1          | 2004/4/19           | 1499091      | 2010/6/16     |
| DE03746888. 1         | 2004/4/19           | 1499091      | 2010/6/16     |
| FR03746888.1          | 2004/4/19           | 1499091      | 2010/6/16     |
| EP03746888. 1         | 2004/4/19           | 1499091      | 2010/6/16     |
| PCT/JP03/004157       | 2003/4/1            |              |               |
| JP2002117659          | 2002/4/19           | 03629008     | 2004/12/17    |

Assignor also hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all patents or certificates of invention which may be granted upon any of the Assigned Patents in the name of Assignee, as the assignee to the entire interest therein.

IN WITNESS WHEREOF, Assignor has caused its duly authorized representatives to execute this Assignment.



#### ASSIGNOR

Panasonic Corporation

| By:    | 皇同居虎                                     |
|--------|--|
| Name:  | Hideo Toyoda                             |
| Title: | Director of Indellectual Property Center |
| Date:  | 2015, 12,30                              |

Panasonic Corporation Intellectual Property of America By:

| Name:  |  |
|--------|--|
| Title: |  |
| Date:  |  |



### ASSIGNOR

Panasonic Corporation

| By:    |  |
|--------|--|
| Name:  |  |
| Title: |  |
| Date:  |  |

Panasonic Corporation Intellectual Property of America

| By:    | Notri               |
|--------|---------------------|
| Name:  | Yuichiro Takayanagi |
| Title: | President           |
| Date:  | December 25, 2015   |