

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4191552

|                                                                                                                                                                                                 |                               |                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------|
| <b>SUBMISSION TYPE:</b>                                                                                                                                                                         | NEW ASSIGNMENT                |                       |
| <b>NATURE OF CONVEYANCE:</b>                                                                                                                                                                    | ASSIGNMENT                    |                       |
| <b>CONVEYING PARTY DATA</b>                                                                                                                                                                     |                               |                       |
|                                                                                                                                                                                                 | <b>Name</b>                   | <b>Execution Date</b> |
|                                                                                                                                                                                                 | HYUN-HWA LEE                  | 11/07/2016            |
| <b>RECEIVING PARTY DATA</b>                                                                                                                                                                     |                               |                       |
| <b>Name:</b>                                                                                                                                                                                    | SAMSUNG ELECTRONICS CO., LTD. |                       |
| <b>Street Address:</b>                                                                                                                                                                          | 129, SAMSUNG-RO, YEONGTONG-GU |                       |
| <b>City:</b>                                                                                                                                                                                    | SUWON-SI, GYEONGGI-DO         |                       |
| <b>State/Country:</b>                                                                                                                                                                           | KOREA, REPUBLIC OF            |                       |
| <b>Postal Code:</b>                                                                                                                                                                             | 16677                         |                       |
| <b>PROPERTY NUMBERS Total: 1</b>                                                                                                                                                                |                               |                       |
| <b>Property Type</b>                                                                                                                                                                            | <b>Number</b>                 |                       |
| <b>Application Number:</b>                                                                                                                                                                      | 15318499                      |                       |
| <b>CORRESPONDENCE DATA</b>                                                                                                                                                                      |                               |                       |
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| <b>ATTORNEY DOCKET NUMBER:</b>                                                                                                                                                                  | 1572.1708                     |                       |
| <b>NAME OF SUBMITTER:</b>                                                                                                                                                                       | TEMNIT AFEWORK                |                       |
| <b>SIGNATURE:</b>                                                                                                                                                                               | /Temnit Afework/              |                       |
| <b>DATE SIGNED:</b>                                                                                                                                                                             | 12/19/2016                    |                       |
| <b>Total Attachments: 1</b>                                                                                                                                                                     |                               |                       |
| source=Assignment_as_filed#page1.tif                                                                                                                                                            |                               |                       |

# WORLD WIDE ASSIGNMENT

5001-019

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

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

SAMSUNG ELECTRONICS CO., LTD.  
129, Samsung-ro, Yeongtong-gu,  
Suwon-si, Gyeonggi-do 16677  
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)

ELECTRONIC APPARATUS, WIRELESS SIGNAL RECEIVING METHOD THEREOF AND SYSTEMS HAVING THE SAME

relating to International Patent Application PCT/\_\_\_\_\_/\_\_\_\_\_, and/or for which application for Letters Patent of the United States of America was executed on even date herewith or, if not so executed, was.

(a) executed on :

(Insert date of execution of application, if not concurrent)

(b) filed on :

Serial No.

Any registered attorney or patent agent 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 of America and of any and all other countries granted on said invention and/or on said application and any rights of priority, extension, continuation, division, renewal, substitute, reissue, reviews (including inter partes review, post grant review and covered business method review), supplemental examination, interference, 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 agrees(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 in the United States of America and in any and all other countries, including in the preparation and prosecution of said application(s) and the issuance of said Letters Patent(s), and in any rights of priority, extension, continuation, division, renewal, substitute, reissue, reviews, supplemental examination, interference, 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 inventor(s) has (have) affixed his/her/their signature(s).

(Typed Name & Signature of inventor(s))

(Date)

(Typed Name & Signature of Witness(es))

|                        |                   |                     |
|------------------------|-------------------|---------------------|
| 1) <u>Hyun-Hwa LEE</u> | <u>2016-11-07</u> | <u>Hyun-Hwa LEE</u> |
| 2) _____               | _____             | _____               |
| 3) _____               | _____             | _____               |
| 4) _____               | _____             | _____               |

PATENT

RECORDED: 12/19/2016

REEL: 040672 FRAME: 0681