PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4256546

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

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------|----------------|
| JE-IK KIM | 01/16/2017 |
| JOO-YOEN LEE | 01/17/2017 |

RECEIVING PARTY DATA

| Name: | SAMSUNG ELECTRONICS CO., LTD. | |
|-----------------|--|--|
| Street Address: | 129, SAMSUNG-RO, YEONGTONG-GU, GYEONGGI-DO | |
| City: | SUWON-SI | |
| State/Country: | KOREA, REPUBLIC OF | |
| Postal Code: | 16677 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15422868 |

CORRESPONDENCE DATA

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Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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| ATTORNEY DOCKET NUMBER: | Q230917 | |
|--|------------------|--|
| NAME OF SUBMITTER: | THOMAS HUNDLEY | |
| SIGNATURE: | /Thomas Hundley/ | |
| DATE SIGNED: 02/02/2017 | | |
| This document serves as an Oath/Declaration (37 CFR 1.63). | | |

Total Attachments: 2

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PATENT REEL: 041158 FRAME: 0783

504209869

Docket No.: Q230917

Samsung Ref.: CA2015090131US0

Only After Sept 16, 2012

ASSIGNMENT WITH DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

Whereas, I/We, the undersigned inventor(s) hereinafter called assignor(s), have invented certain improvements described in the application identified below; and

Whereas, <u>SAMSUNG ELECTRONICS CO.</u>, <u>LTD.</u> of 129, <u>Samsung-ro.</u> Yeongtong-gu. <u>Suwon-si.</u> Gyeonggi-do. 16677, <u>Republic of Korea.</u> (assignee), desires to acquire the entire rigit, title, and interest in the application and invention, and to any United States patents to be obtained therefor:

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America and all other countries, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, and including rights of priority under the International Convention of Paris (1883) as amended, the laws of all foreign countries, and the laws of the United States including the right to claim priority under 35 USC 119 and the right to sue for past damages, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we hereby agree that the assignee may apply for foreign Letters Patent on the invention and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States and foreign applications when called upon to do so by the assignee.

PATENT REEL: 041158 FRAME: 0784

| NAME OF SOLE OR FIRST INVENTOR: | | | | |
|--|---|--|--|--|
| Given Name | | | | |
| (first and middle [if any]) Je-ik | Family Name or Surname KIM | | | |
| Inventor's signature JC1 K 16 km | Date 16- JAN - 2017 | | | |
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| NAME OF SECOND INVENTOR: | | | | |
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| Inventor's signature (Oro You (C. | € Date (17 - Jan - >01) | | | |
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PATENT REEL: 041158 FRAME: 0785

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