504725829 01/11/2018

PATENT ASSIGNMENT COVER SHEET

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DUDANICOION TYPE:

EPAS ID: PAT4772553

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------|----------------|
| YIN-JI PIAO | 12/26/2017 |
| KI-HO CHOI | 12/28/2017 |

RECEIVING PARTY DATA

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| City: | SUWON-SI | |
| State/Country: | KOREA, REPUBLIC OF | |
| Postal Code: | 16677 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number | |
|---------------------|----------|--|
| Application Number: | 15743941 | |

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| ATTORNEY DOCKET NUMBER: | Q227174 | |
|-------------------------|--|--|
| NAME OF SUBMITTER: | TODD YARBOROUGH, TEAMS DEPT | |
| SIGNATURE: | /Todd Yarborough/ | |
| DATE SIGNED: | 01/11/2018 | |
| | This document serves as an Oath/Declaration (37 CFR 1.63). | |

Total Attachments: 2

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PATENT 504725829 REEL: 045058 FRAME: 0837

Docket No.:

0227174 SEC Ref.: MH-201509-011-1-US1

Only After Sept 16, 2012

ASSIGNMENT WITH DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.83)

Whereas. We, the undersigned inventors hereinafter called assignors, have invented certain improvements described in the application identified below; and

Whereas, SAMSUNG ELECTRONICS CO., LTD, of 129, Samsung-to, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Republic of Korea. (assignce), desires to acquire the entire right, 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.

We, the above named assignors, 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 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 we hereby agree that the assignee may apply for foreign Letters Patent on the invention and 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

| Legalization not required for recording | g but | is prima facie evidence of execution under 35 USC 261) | on the second of the second of the second |
|--|-------|---|---|
| As the below named inventor, I hereby | deck | ne that: | en e |
| This assignment with declaration is linected to: | | The attached application, or | |
| | Ø | United States Application or PCT International Applicatiled on hely 26, 2016. | tion Number <u>PCT/KR2016/008159</u> |
| The application is entitled: | | | and the second second |

ENCODING DEVICE, DECODING DEVICE, AND ENCODING AND DECODING METHOD THEREOF

The above identified application was made or was authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application for which this assignment with declaration is being submitted.

I am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR 1.56.

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

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REEL: 045058 FRAME: 0838

| NAME OF SOLE OR FIRST INVENTOR: | | | | |
|--|-----------------------------|--|--|--|
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