

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
DAE-SUNG CHO	06/07/2017
CHAN-YUL KIM	06/13/2017
JEONG-HOON PARK	06/13/2017
PIL-KYU PARK	06/13/2017
KWANG-PYO CHOI	06/13/2017
DAI-WOONG CHOI	06/15/2017
WOONG-IL CHOI	06/13/2017
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<b>Street Address:</b>	129, SAMSUNG-RO, YEONGTONG-GU, GYEONGGI-DO
<b>City:</b>	SUWON-SI
<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>	15538853
<b>CORRESPONDENCE DATA</b>	
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<b>NAME OF SUBMITTER:</b>	ZIRIATOU AMADOU, TEAMS DEPARTMENT
<b>SIGNATURE:</b>	/ziriadouamadou/
<b>DATE SIGNED:</b>	06/22/2017

PATENT

**Total Attachments: 9**

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

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-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Republic of Korea, (assignee), 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 but is prima facie evidence of execution under 35 USC 261)

As the below named inventor, I hereby declare that:

This assignment with declaration is  The attached application, or directed to:

United States Application or PCT International Application Number PCT/KR2014/013051 filed on December 30, 2014.

The application is entitled:

**ENCODING METHOD AND APPARATUS, AND DECODING METHOD AND APPARATUS**

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.

NAME OF SOLE OR FIRST INVENTOR:	
Given Name (first and middle [if any])	Dae-sung
Family Name or Surname	CHO
Inventor's signature	Date 2010.6.9
Residence: Seoul, Republic of Korea	
Mailing Address: 108-1101, 9, Sadang-ro 23ba-gil, Dongjak-gu, Seoul, Republic of Korea	
NAME OF SECOND INVENTOR:	
Given Name (first and middle [if any])	Chan-yul
Family Name or Surname	KIM
Inventor's signature	Date
Residence: Bucheon-si, Republic of Korea	
Mailing Address: 102-506, 245, Ojeong-ro, Ojeong-gu, Bucheon-si, Gyeonggi-do, Republic of Korea	
NAME OF THIRD INVENTOR:	
Given Name (first and middle [if any])	Jeong-hoon
Family Name or Surname	PARK
Inventor's signature	Date
Residence: Seoul, Republic of Korea	
Mailing Address: 505-204, 2343-10, Nambusunhwan-ro, Seocho-gu, Seoul, Republic of Korea	
NAME OF FOURTH INVENTOR:	
Given Name (first and middle [if any])	Pil-kyu
Family Name or Surname	PARK
Inventor's signature	Date
Residence: Seongnam-si, Republic of Korea	
Mailing Address: 407-1103, 80, Jeongjail-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea	
NAME OF FIFTH INVENTOR:	
Given Name (first and middle [if any])	Kwang-pyo
Family Name or Surname	CHOI
Inventor's signature	Date
Residence: Anyang-si, Republic of Korea	
Mailing Address: 106-1302, 28, Bakdal-ro 49Sbeon-gil, Manan-gu, Anyang-si, Gyeonggi-do, Republic of Korea	

**NAME OF SIXTH INVENTOR:**

Given Name

(first and middle [if any])

Dai-woong

Family Name or Surname

CHOI

Inventor's signature

Date

Residence:

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Mailing Address: 202, 26, Sillim-ro 43-gil, Gwanak-gu, Seoul, Republic of Korea

**NAME OF SEVENTH INVENTOR:**

Given Name

(first and middle [if any])

Woong-il

Family Name or Surname

CHOI

Inventor's signature

Date

Residence:

Osan-si, Republic of Korea

Mailing Address: 301, 80, Sucheon-ro, Osan-si, Gyeonggi-do, Republic of Korea

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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.

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<b>NAME OF SECOND INVENTOR:</b>	
Given Name (first and middle [if any])	Chan-yul
Family Name or Surname	KIM
Inventor's signature	Date JUN 13 2017
Residence: Bucheon-si, Republic of Korea	
Mailing Address: 102-506, 245, Ojeong-ro, Ojeong-gu, Bucheon-si, Gyeonggi-do, Republic of Korea	
<b>NAME OF THIRD INVENTOR:</b>	
Given Name (first and middle [if any])	Jeong-hoon
Family Name or Surname	PARK
Inventor's signature	Date JUN 13 2017
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<b>NAME OF FOURTH INVENTOR:</b>	
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Family Name or Surname	PARK
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<b>NAME OF FIFTH INVENTOR:</b>	
Given Name (first and middle [if any])	Kwang-pyo
Family Name or Surname	CHOI
Inventor's signature	Date JUN. 13. 2017
Residence: Anyang-si, Republic of Korea	
Mailing Address: 106-1302, 28, Bakdal-ro 498beon-gil, Manan-gu, Anyang-si, Gyeonggi-do, Republic of Korea	

<b>NAME OF SIXTH INVENTOR:</b>	
Given Name (first and middle [if any])	Dai-woong
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Inventor's signature	Date
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<b>NAME OF SEVENTH INVENTOR:</b>	
Given Name (first and middle [if any])	Woong-il
Family Name or Surname	CHOI
Inventor's signature	Date Jun. 13 2017
Residence:	Osan-si, Republic of Korea
Mailing Address:	301, 80, Suchong-ro, Osan-si, Gyeonggi-do, Republic of Korea



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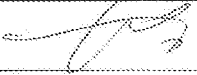
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