504426539 06/22/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

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EPAS ID: PAT4473239

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
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

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:	15538853

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	Q233611
NAME OF SUBMITTER:	ZIRIATOU AMADOU, TEAMS DEPARTMENT
SIGNATURE:	/ziriatouamadou/
DATE SIGNED:	06/22/2017

This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 9

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Docket No.:

0233611 Samsung Ref: MH2014090301US0

Only After Sept 16, 2012

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-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)
As the below named inventor, I hereby	r decta	are that:
This assignment with declaration is directed to:		The attached application, or
The application is emitted:	Ø	United States Application or PCT International Application Number <u>PCT/KR2014/013051</u> filed on <u>December 30, 2014</u> .

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]) Dac-sung	Camila himas as Comment of the Control	
**************************************	Family Name or Surname CHO	
Inventor's signature	Date > 10.6.7	
Residence: Seoul, Republic of Korca		
Mailing Address: 108-1101, 9, Sadang-to 23ha-gil, Dongjak-gu, S	eoul, Republic of Korea	
NAME OF SECOND INVENTOR:		
Given Name		
(first and middle [if any]) Chan-yul	Family Name or Surname KIM	
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inventor's signature	Date	
Residence: Bucheon-si, Republic of Korca		
Mailing Address: 102-506, 245, Ojeong-ro, Ojeong-gu, Bucheon-s	a Cucannai da Ramblio al Karan	
NAME OF THIRD INVENTOR:	NOTE OF THE PROPERTY OF THE PR	
Given Name		
(first and middle [if any]) Jeong-hoon	Family Name or Surname PARK	
Inventor's signature	Daie	
Residence: Seoul, Republic of Korea		
Mailing Address: 505-204, 2343-10, Nambusunhwan-ro, Seocho-g	n, Secoil, Republic of Korea	
NAME OF FOURTH INVENTOR:		
Given Name		
(first and middle (if any)) Pil-kyu	Family Name or Surname PARK	
Inventor's	Family Name or Surname PARK	
signature	Date	
) 2/3/0	
Residence: Seongnam-si, Republic of Korea		
Mailing Address: 407-1103, 80, Jeongjaif-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 CHO	
Inventor's	Family Name or Surname CHOI	
signature	× .	
	Date	
Residence: Anyang-si, Republic of Korea		
Mailing		
Address: 106-1302, 28. Bakdal-ro 498beon-gil, Manan-gu. A	means of Greenanish Resolds of Worse	
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NAME OF SIXTH INVENTOR:	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
	y
Given Name	
(first and micidle [if any]) Dai-woong	Family Name or Surname CHOI
	The state of demant Chair
Inventor's signature	
13. A STATE WAY	Date
Residence: Seoul, Republic of Korea	
Mailing Address: 202, 26, Sillim-to 43-gil, Gwanak-gu, Scoul, Reput	die of Voso
AT A B S ST STREET ENGINEER TO THE TRANSPORTER	98C-94-888E3
NAME OF SEVENTH INVENTOR:	
Given Name	
(first and middle [if any]) Woong-il	Family Name or Surname CHOI
	2.000.00.000.00000000000000000000000000
Inventor's signature	
The same of the sa	Date
10. ()	
Residence: Osan-si, Republic of Korea	
Mailing Address: 301, 80, Sucheong-ro, Osan-si, Gyeonggi-do, Repul	Nic of Vone
	are a vara

Docket No.:

0233611 Samsung Ref: MH2014090301US0

Only After Sept 16, 2012

ASSIGNMENT WITH DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (17 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-to, Yeongtong-gu, Sawon-si, Gyeonggi-do, 16677, Republic of Korea. (assignee), desires to acquire the entire right, tifle, 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 bereby 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 ສຣຣໂຊກຄຣ.

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The application is entitled:		

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[Page I]

PATENT

REEL: 042951 FRAME: 0120

NAME OF SOLE OR FIRST INVENTOR:			
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inventor's signature	Daie		
Residence: Seoul, Republic of Korea			
Mailing Address: 108-1101, 9, Sadang-ro 23ba-gil, Dongjak-gu, Seo	ul, Republic of Korea		
NAME OF SECOND INVENTOR:	-,		
Given Name (first and middle [if any]) Chan-yul	Family Name or Surname KIM		
inventor's signature	uga/ Date JUN 12, 2019		
Residence: Bucheon-si, Republic of Korea			
Mailing Address: 102-506, 245, Ojeong-10, 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 /a//	Daie JUN /3 20/2		
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Mailing Address: 505-204, 2343-10, Nambusunhwan-ro, Seocho-gu,	Scoul, Republic of Korea		
NAME OF FOURTH INVENTOR:			
Given Name (first and middle [if any]) Pil-kyu	Family Name or Surname PARK		
Inventor's signature	Josie JUN. 13, 2017		
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NAME OF FIFTH INVENTOR:			
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 498bcon-gil, Manan-gu, An	iyang-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: Scoul, Republic of Korea			
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 Jun. 13, 2017		
Residence: Osan-si, Republic of Korea	· ·		
Mailing Address: 301, 80, Suchcong-to, Osan-si, Gyeonggi-do, Repul	blic of Korea		

Docket No.: Q233611 Samsung Ref: MH2014090301US0

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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.

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RECORDED: 06/22/2017