504676758 12/07/2017

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SUN-MIN KIM	11/23/2017
SANG-BAE CHON	11/16/2017

RECEIVING PARTY DATA

Name:	SAMSUNG ELECTRONICS CO., LTD.
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City:	SUWON-SI
State/Country:	KOREA, REPUBLIC OF
Postal Code:	16677

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15580506

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	Q227520
NAME OF SUBMITTER:	CRYSTABEL REITER - TEAMS DEPT.
SIGNATURE:	/Crystabel Reiter/
DATE SIGNED:	12/07/2017
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 4

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PATENT REEL: 044331 FRAME: 0434

Docket No.:

Q227520 Samsung Ref.: MD2016010451US1

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 assignce, 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	decla	ue that:
This assignment with declaration is directed to:		The attached application, or
The application is entitled:	Ø	United States Application or PCT International Application Number <u>PCT/KR2016/006497</u> filed on <u>June 17, 2016</u> .

<u>DEVICE AND METHOD FOR PROCESSING INTERNAL CHANNEL FOR LOW COMPLEXITY FORMAT CONVERSION</u>

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.

PATENT

REEL: 044331 FRAME: 0435

NAME OF SOLE OR FIRST INVENTOR:	
Given Name (first and middle [if any]) Sun-min	Family Name or Surname KIM
Inventor's signature	Date 20/2// 23
Residence: Yongin-si, Republic of Korea	
Mailing Address: 507-2002, 110, Sinbong 1-ro, Suji-gu, Yongin-si, C	yeonggi-do, Republic of Korea
NAME OF SECOND INVENTOR:	
Given Name (first and middle [if any]) Sang-bac	Family Name or Surname CHON
Inventor's signature	Date
Residence: Suwon-si, Republic of Korea	
Mailing Address: 103-504-110 Macveony-m Veongrong-gu Suwar	nui Gurangolula Beruklic af Karea

PATENT

REEL: 044331 FRAME: 0436

Docket No.:

Q227520 Samsung Ref.: MD2016010451US1

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-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	ng but	is prima facie evidence of execution under 35 USC 261)
As the below named inventor, I hereby	decla	are that:
This assignment with declaration is directed to:		The attached application, or
	Ø	United States Application or PCT International Application Number $\underline{PCT/KR2016/006497}$ filed on $\underline{June~17,2016}$.
The application is entitled:		

DEVICE AND METHOD FOR PROCESSING INTERNAL CHANNEL FOR LOW COMPLEXITY FORMAT CONVERSION

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> **PATENT** REEL: 044331 FRAME: 0437

NAME OF SOLE OR FIRST INVENTOR:	
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Inventor's signature	Date
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Mailing Address: 507-2002, 110, Sinbong 1-ro, Suji-gu, Yongin-si, G	iyeonggi-do, Republic of Korea
NAME OF SECOND INVENTOR:	
Given Name (first and middle [if any]) Sang-bae	Family Name or Surname CHON
(first and middle [if any]) Sang-bae	

[Page 2] **PATENT REEL: 044331 FRAME: 0438**

RECORDED: 12/07/2017