505981821 03/24/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6028529

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KYOUNG-HOON KIM	03/03/2020
YOUNG-HWAN PARK	03/05/2020
DONG-KWAN SUH	03/03/2020
KESHAVA PRASAD NAGARAJA	03/03/2020
DAE-HYUN KIM	03/03/2020
SUK-JIN KIM	03/03/2020
HAN-SU CHO	03/10/2020
HYUN-JUNG KIM	03/03/2020

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:	16650083

CORRESPONDENCE DATA

Fax Number: (202)293-7860

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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Email: cannes@sughrue.com, sughrue@sughrue.com

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ATTORNEY DOCKET NUMBER:	Q252790	
NAME OF SUBMITTER:	CHRISTOPHER ANNES - TEAMS DEPARTMENT	
SIGNATURE:	/CHRISTOPHER ANNES/	

505981821 REEL: 052210 FRAME: 0038

PATENT

DATE SIGNED: 03/24/2020		
This document serves as an Oath/Declaration (37 CFR 1.63).		
Total Attachments: 6		
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PATENT REEL: 052210 FRAME: 0039

Docket No.: 0252790 SEC Ref: MD-201709-019-1-US1

Only After Sept 16, 2012

1.63)

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

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 directed to:	O	The attached application, or
Market Ma	Ø	United States Application or PCT International Application Number <u>PCT/KR2018/005635</u> filed on <u>May 16, 2018</u> .

The application is entitled:

ELECTRONIC DEVICE AND CONTROL 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.

PATENT

REEL: 052210 FRAME: 0040

NAME OF SOLE OR FIRST INVENTOR:			
Given Name (first and middle [if any]) Kyoung-hoon	Family Name or Surname KIM		
Inventor's signature	Date 3, 3, 2020		
Residence: Suwon-si, Republic of Korea			
503-1503, 35, Dongtanwoncheon-ro 881beon-gil Mailing Address: Korea	Yeongtong-gu, Suwon-si, Gyeonggi-do, 16548, Republic of		
NAME OF SECOND INVENTOR:			
Given Name			
(first and middle [if any]) Young-hwan	Family Name or Surname PARK		
Inventor's signature	Date 3.5, 2-20		
Residence: Yongin-si, Republic of Korea			
Mailing Address: 107-306, 166, Suji-to, Suji-gu, Yongin-si, Gyeon	ggi-do, 16846, Republic of Korca		
NAME OF THIRD INVENTOR:			
Given Name (first and middle [if any]) / Dong-kwan	Family Name or Surname SUH		
Inventor's signature	Date 3.3.2020		
Residence: Yongin-si, Republic of Korea			
1105-1202, 41, Heungdeokjungang-ro 105beon-g Mailing Address: Korea	il, Giheung-gu, Yongin-si, Gyeonggi-do, 16951, Republic of		
NAME OF FOURTH INVENTOR:			
Given Name (first and middle [if any]) Keshava Prasad	Family Name or Surname NAGARAJA		
Inventor's signature	Date		
Residence: Sawon-si, Republic of Korea			
•			
Mailing Address: 119-2301, 363, Hyowon-ro, Yeongiong-gu, Sawo	m-si, Gyeonggi-do, 16543, Republic of Korea		
NAME OF FIFTH INVENTOR:			
Given Name (first and middle [if any]) Dae-hyun	Family Name or Surname KIM		
Inventor's signature U W	Date 3/3/2020		
Residence: Seoul, Republic of Korea			
Mailino Address: 108-403, 29, Hakdong-to 68-gil Gangnam-gg, Seoul, 06090, Republic of Korea			

PATENT

[Page 2] REEL: 052210 FRAME: 0041

NAME OF SIXTH INVENTOR:				
Given Name				
(first and middle [if any]) Suk-jin	Family Name or Surname KIM			
Inventor's signature	Date 03,01, 2,20			
Residence: Seoul, Republic of Korea				
Mailing Address: 102-1501, 23, Tojeong-ro 31-gil Mapo-gu, Scoul, 04161, Republic of Korea				
NAME OF SEVENTH INVENTOR:				
Given Name (first and middle [if any]) Han-su	Family Name or Surname CHO			
Inventor's signature	Date			
Residence: Suwon-si, Republic of Korea				
Mailing Address: 704-1101, 1526, Bongyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16701, Republic of Korea				
NAME OF EIGHTH INVENTOR:				
Given Name (first and middle [if any]) Hyun-jung	Family Name or Surname KIM			
Inventor's signature	Date 03、3 2020 .			
Residence: Suwon-si, Republic of Korea				
Mailing Address: 5407-2604, 65, Docheong-ro, Yeongtong-gu, Suw	on-si, Gyeonggi-do, 16509, Republic of Korea			

Docket No.: Q252790 SEC Ref: MD-201709-019-1-US1 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, <u>SAMSUNG ELECTRONICS CO.</u> LTD. of 129. Samsung-ro. Yeongtong-gu. Suwon-si. Gyeonggi-do. 16677. Republic of <u>Korea</u>. (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.

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As the below named inventor, I hereby declare that:

This assignment with declaration is
directed to:

United States Application or PCT International Application Number PCT/KR2018/005635
filed on May 16, 2018.

The application is entitled:

ELECTRONIC DEVICE AND CONTROL 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.

PATENT REEL: 052210 FRAME: 0043

NAME OF SOLE OR FIRST INVENTOR:				
Given Name				
(first and middle [if any]) Kyoung-hoon	Family Name or Surname KIM			
Inventor's signature	Date			
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Residence: Suwon-si, Republic of Korea				
503-1503, 35, Dongtanwoncheon-ro 881beon-gil	Yeongtong-gu, Suwon-si, Gyeonggi-do, 16548, Republic of			
Mailing Address: Korea				
NAME OF SECOND INVENTOR:				
Given Name	Parish Name of Comments of the Parish			
(first and middle [if any]) Young-hwan	Family Name or Surname PARK			
Inventor's signature	Date			
Residence: Yongin-si, Republic of Korea				
Mailing Address: 107-306, 166, Suji-to, Suji-gu, Yongin-si, Gyeon	ggi-do, 16846, Republic of Korea			
NAME OF THIRD INVENTOR:				
Given Name	Family Name or Surname SUH			
(first and middle [if any]) Dong-kwan	Family Name or Surname SUH			
Inventor's signature	Date			
Residence: Yongin-si, Republic of Korea				
1105-1202, 41, Heungdeokjungang-ro 105beon-g Mailing Address: Korea	il, Giheung-gu, Yongin-si, Gyeonggi-do, 16951, Republic of			
NAME OF FOURTH INVENTOR:				
Given Name				
(first and middle (if any)) Keshaya Prasad	Family Name or Surname NAGARAJA			
Inventor's signature Kuhava Premadin	Date 2020 03 03			
Inventor's signature	Date 03 03			
Residence: Suwon-si, Republic of Korea				
Mailing Address: 119-2301, 363, Hyowon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16543, Republic of Korea				
NAME OF FIFTH INVENTOR:				
Given Name				
(first and middle [if any]) Dae-hyun	Family Name or Surname KIM			
Inventor's signature	Date			
RCVARVC 3 SIGNARA	Date			
Residence: Seoul, Republic of Korea				
Mailing Address: 108-403, 29, Hakdong-ro 68-gil Gangnam-gu, Seoul, 06090, Republic of Korca				

PATENT REEL: 052210 FRAME: 0044

NAME OF SIXTH INVENTOR:				
Given Name (first and middle (if any)) Suk-jin	Family Name or Surname KIM			
Inventor's signature	Date			
Residence: Seoul, Republic of Korea				
Minling Address: 102-1501, 23, Tojcong-ro 31-gil Mapo-ga, Seost, 04161, Republic of Korea				
NAME OF SEVENTH INVENTOR:				
Given Name (first and middle [if any]) / Han-su/	Family Name or Samame CHO			
Inventor's signature IMA P	Date 3/10/2020			
Residence: Suwon-si, Republic of Korea				
Mailing Address: 704-1101, 1526, Bongyeong-ro, Yeongtong-ga, Suwon-si, Gyeonggi-do, 16701, Republic of Korea				
NAME OF EIGHTH INVENTOR:				
Given Name (first and middle [if eny]) Hyun-jung	Family Name or Surname KIM			
Investor's signature	Date			
Residence: Suwon-si, Republic of Korea				
Mailing Address: 5407-2604, 65, Docheong-ro, Yeongtong-gu, Suwc	on-si, Gyeonggi-do, 16509, Republic of Korea			

PATENT REEL: 052210 FRAME: 0045

RECORDED: 03/24/2020