504071463 10/28/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4118130

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the APPLICATION NUMBER 15/292322 previously recorded on Reel 040029 Frame 0051. Assignor(s) hereby confirms the APPLICATION SHOULD BE 15/292,332.

CONVEYING PARTY DATA

Name	Execution Date
JI-HYE YEON	08/25/2016
WAN-TAE LIM	08/25/2016
YOUNG-SOO PARK	08/26/2016
JUNG-SUB KIM	08/16/2016
JIN-SUB LEE	08/16/2016
HA-NUL YOO	08/16/2016
HYE-SEOK NOH	08/16/2016

RECEIVING PARTY DATA

Name:	SAMSUNG ELECTRONICS CO., LTD.
Street Address:	129 SAMSUNG-RO, YEONGTONG-GU
City:	SUWON-SI, GYEONGGI-DO
State/Country:	KOREA, REPUBLIC OF
Postal Code:	16677

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15292332

CORRESPONDENCE DATA

Fax Number: (703)668-8200

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.

Phone: 703-668-8000

Email: dcmailroom@hdp.com

Correspondent Name: HARNESS, DICKEY & PIERCE, P.L.C.

Address Line 1: P.O. BOX 8910

Address Line 4: RESTON, VIRGINIA 20195

ATTORNEY DOCKET NUMBER:	2557-002513-US
NAME OF SUBMITTER:	JOHN A. CASTELLANO, REG NO.: 35094
SIGNATURE:	/John A. Castellano/

PATENT 504071463 REEL: 040508 FRAME: 0568

DATE SIGNED:	10/28/2016	
Total Attachments: 6		
source=2016-10-18 Notice of Recordation	on CoverSheet#page1.tif	
source=2016_10_12_Declaration#page	1.tif	
source=2016_10_12_Declaration#page2.tif		
source=2016_10_12_Declaration#page3.tif		
source=2016_10_12_Declaration#page4.tif		
source=2016_10_12_Declaration#page5.tif		

PATENT REEL: 040508 FRAME: 0569

504052477 10/17/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4099141

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JI-HYE YEON	08/25/2016
WAN-TAE LIM	08/25/2016
YOUNG-SOO PARK	08/26/2016
JUNG-SUB KIM	08/25/2016
JIN-SUB LEE	08/16/2016
HA-NUL YOO	08/16/2016
HYE-SEOK NOH	08/16/2016

RECEIVING PARTY DATA

Name:	SAMSUNG ELECTRONICS CO., LTD.
Street Address:	129 SAMSUNG-RO, YEONGTONG-GU
City:	SUWON-SI, GYEONGGI-DO
State/Country:	KOREA, REPUBLIC OF
Postal Code:	16677

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15292322

CORRESPONDENCE DATA

Fax Number: (703)668-8200

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.

Phone: 703-668-8000

Email: dcmailroom@hdp.com

Correspondent Name: HARNESS, DICKEY & PIERCE, P.L.C.

Address Line 1: P.O. BOX 8910

Address Line 4: RESTON, VIRGINIA 20195

ATTORNEY DOCKET NUMBER:	2557-002513-US
NAME OF SUBMITTER:	JOHN A. CASTELLANO, REG NO.: 35094
SIGNATURE:	/John A. Castellano/
DATE SIGNED:	10/17/2016

PATENT REEL: 040508 FRAME: 0570

COMBINED DECLARATION (37 CFR §1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM¹

The undersigned acknowledges that this document is being used both as an assignment of

The above-identified application was made or authorized to be made by me (us).

I (we) believe that I am (we are) the original inventor (original joint inventors) of a claimed invention in the above-identified application.

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

¹ This form requires the use of an Application Data Sheet.				

SEC Ref No.	QA-201511-009-1-US0	Attorney Ref No.	2557-002513-US	

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page 1 of 5



SAMSUNG ELECTRONICS CO., LTD.

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims.

I acknowledge that I am aware of the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56.

Section II. Assignment

In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, the undersigned hereby sell(s) and assign(s) to

Samsung Electronics Co., Ltd.

having an address at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do 16677, Republic of Korea, (hereinafter designated as the Assignee), the entire (100%) right, title and interest for the United States as defined in 35 USC §100, in the invention described in the application identified in Section I of this document.

Assignor hereby confirms any prior assignment to Assignee, and to the extent that Assignor has not already done so, agrees to assign, and hereby does, sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the inventions as described in the aforesaid application, to the aforesaid application itself, and all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application, and any United States or foreign Letters Patent, utility model, or other similar rights which may be granted thereon, including reissues, reexaminations and extensions thereof, and all copyright rights throughout the world in the aforesaid application and the subject matter disclosed therein, these rights, title and interest to be held and enjoyed by Assignee to the full end of the term for which the Letters Patent, utility model, or other similar rights, are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to sue for, and recover for past infringements of, or liabilities for, any of the rights relating to any of the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-

SEC Ref No.	QA-201511-009-1-US0	Attorney Ref No.	2557-002513-US
-------------	---------------------	------------------	----------------

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page 2 of 5



examination, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee without further or other compensation than that above set forth;

Assignor hereby covenants that no assignment, sale, license, agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

Assignor hereby requests the United States Patent and Trademark Office to issue the Letters Patent of the United States of America to Assignee, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue the Letters Patent, Utility Model Registration or other similar right to Assignee.

The undersigned hereby grant(s) the law firm of Harness, Dickey & Pierce, P.L.C. the power to insert on this Declaration and Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

Section III. Inventor(s)/Assignor(s) Signature(s)

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FIRST INVENTOR/ASSIGNOR	YEON	Ji-hye	
J.			
SIGNATURE _	OR 2 321	DATE 	2016.0f.25

SEC Ref No.	QA-201511-009-1-US0	Attorney Ref No.	2557-002513-US

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page 3 of 5



LEGAL NAME OF SECOND	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	LIM	Wan-tae	•
SIGNATURE	M-T-di	DATE	08/25/2016
	one 🏈 faire a contra e monitorio monitorio (Caracterio de la trasta e maiorio e maiorio e maiorio anticolorio del contra del maiorio e maiorio anticolorio del contra del cont		

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
THIRD INVENTOR/ASSIGNOR	PARK	Young-soo	
SIGNATURE	6 //	DATE	A/21/216

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FOURTH INVENTOR/ASSIGNOR	KIM	Jung-sub	
SIGNATURE _	772	DATE	25 AV 6 16

SEC Ref No. QA-201511-009-1-US0 Attorney Ref No. 2557-002513-US

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page 4 of 5

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	LEE	Jin-sub	
		.J	
SIGNATURE	M	DATE	16/3/25

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	YOO	Ha-nul	
SIGNATURE	V2-	DATE	16./08/25
Mahamma		oder 0411	The state of the s

LEGAL NAMI		Family Name	First Given Name	Second Given Name
SEVENTH INVENTOR/ASS		NOH	Hye-seok	
SIGN	ATURE	if flery 7	DATE	16/8/25
SEC Ref No.	QA-20	1511-009-1-US0	Attorney Ref Na.	2557-002513-US

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page 5 of 5

3119571472116199