504658630 11/28/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

rsion v1.1 EPAS ID: PAT4705352

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HIROMASA SHIBUYA	11/15/2017
TADAO YAGI	11/15/2017
RIE SAKURAI	11/15/2017
YEONG SUK CHOI	11/15/2017
YUTAKA MATSUO	11/15/2017

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:	15822400

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

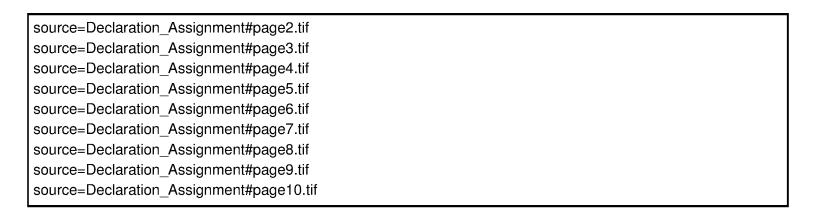
ATTORNEY DOCKET NUMBER: 15639-000350-US	
NAME OF SUBMITTER: JOHN A. CASTELLANO REG.: 35,094	
SIGNATURE: /John A. Castellano/	
DATE SIGNED:	11/28/2017

Total Attachments: 10

source=Declaration_Assignment#page1.tif

PATENT REEL: 044232 FRAME: 0904

504658630



PATENT REEL: 044232 FRAME: 0905

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 invention and as the declaration (37 CFR 1.63) for a Utility or Design Application.

WHEREAS, the undersigned, hereinafter referred to collectively as Assignor, has invented:

Title:	FULLERENE DERIVATIVES AND PHOTOELECTRIC DEVICES AND IMAGE SENSORS			
for whic	,	gnor is about to make or has mad	e United States or Inte	ernational application
WHERE	AS, as	a below named inventor(s), I/(we) hereby declare that:	
Section	l. Dec	laration		
This dec	laratic	n is directed to:		
	\boxtimes	The attached U.S. non-provision	al patent application,	or
[U.S. non-provisional patent appli		, filed
1		PCT international patent application	tion number	, filed on
The abo	ve-ide	ntified application was made or a	uthorized 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.				
I hereby state that I have reviewed and understand the contents of the above identified application, including the claims.				
This form requires the use of an Application Data Sheet.				
SEC Ref I	No	RE-201609-003-1-US0	Attorney Ref No.	15639-000350-US

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

Page 1 of 5

PATENT

REEL: 044232 FRAME: 0906

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

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, reexamination, 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

SEC Ref No.	RE-201609-003-1-US0	Attorney Ref No.	15639-000350-US

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

REEL: 044232 FRAME: 0907

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	SHIBUYA	Hiromasa	
SIGNATURE	澁谷重西	DATE	November 15, 2017

SEC Ref No. RE-201609-003-1-USO Attorney Ref No. 15639-000350-US

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SECOND NVENTOR/ASSIGNOR	YAGI	Tadao	
SIGNATURE		DATE	
			·
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	SAKURAI	Rie	
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FOURTH			300000
INVENTOR/ASSIGNOR	CHOI	Yeong Suk	
SIGNATURE	Yeogsw	Lcho, DATE	November 15, 2017

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

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FIFTH INVENTOR/ASSIGNOR	MATSUO	Yutaka	
(4 ada Woos	- DATE	November 15, 2017

SEC Ref No. RE-201609-003-1-U50 Attorney Ref No. 15639-000350-US

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

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 invention and as the declaration (37 CFR 1.63) for a Utility or Design Application.

WHEREAS, the undersigned, hereinafter referred to collectively as Assignor, has invented:

Title:	FULLERENE DERIVATIVES AND PHOTOELECTRIC DEVICES AND IMAGE SENSORS			
for whice	ch Assignor is about to make or has made United States or International application onto			
WHERE	AS, as a below named inventor(s), I/(we) hereby declare that:			
Section	I. Declaration			
This dec	claration is directed to:			
	The attached U.S. non-provisional patent application, or			
•	U.S. non-provisional patent application number, filed on, or			
•	PCT international patent application number, filed on			
The abo	ve-identified application was made or authorized to be made by me (us).			
• •	elieve that I am (we are) the original inventor (original joint inventors) of a claimed on in the above-identified application.			
	ereby acknowledge that any willful false statement made in this declaration is ble under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or			
-	state that I have reviewed and understand the contents of the above identified ion, including the claims.			
1 This fo	rm requires the use of an Application Data Sheet.			
SEC Ref	No. RE-201609-003-1-USO Attorney Ref No. 15639-000350-US			

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

PATENT REEL: 044232 FRAME: 0911 I acknowledge that I am aware of the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56.

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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, reexamination, 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

SEC Ref No.	RE-201609-003-1-US0	Attorney Ref No.	15639-000350-US

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

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.

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

LEGAL NAME OF FIRST	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	SHIBUYA	Hiromasa	
SIGNATURE		DATE	

SEC Ref No. RE-201609-003-1-USO Attorney Ref No. 15639-000350-US			
	SEC Ref No.	 Attorney Ref No.	15639-000350-US

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SECOND INVENTOR/ASSIGNOR	YAGI	Tadao	
SIGNATURE _	1394	DATE -	November 15, 2017
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
THIRD INVENTOR/ASSIGNOR	SAKURAI	Rie	
SIGNATURE	楔打理鬼	DATE -	November 15, 2017
LEGAL NAME OF FOURTH	Family Name	First Given Name Yeong Suk	Second Given Name

SEC Ref No.	RE-2016	609-003-1-US0	Attorney Ref No.	15639-000350-US
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SIGNATURE			DAT	E
				**
NVENTOR/ASS	SIGNOR	CnOi	reung suk	
FOURTH		CHOI	Yeong Suk	
LEGAL NAM	EOF }	Family Name	First Given Name	Second Given Name

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

LEGAL NAME OF FIFTH INVENTOR/ASSIGNOR	Family Name	First Given Name	Second Given Name
	MATSUO	Yutaka	
			1
SIGNATURE		DATE 	

SEC Ref No. RE-201609-003-1-USO Attorney Ref No. 15639-000350-US

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

Page 5 of 5

PATENT

RECORDED: 11/28/2017 REEL: 044232 FRAME: 0915