PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5635008

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JINBO SHIM	05/13/2019
KYUNGSEOP KIM	05/13/2019
SUNGKYUN PARK	05/13/2019
WONSUK CHOI	05/13/2019
JAEWON CHOI	07/02/2019
JUNG-MOO HONG	05/13/2019

RECEIVING PARTY DATA

Name:	SAMSUNG DISPLAY CO., LTD.
Street Address:	1, SAMSUNG-RO, GIHEUNG-GU
City:	YONGIN-SI, GYEONGGI-DO
State/Country:	KOREA, REPUBLIC OF
Postal Code:	17113

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16521234

CORRESPONDENCE DATA

Fax Number: (516)692-8889

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: 516-692-8888

mail@chauiplaw.com Email:

F. CHAU & ASSOCIATES, LLC **Correspondent Name:**

Address Line 1: 130 WOODBURY ROAD

Address Line 4: WOODBURY, NEW YORK 11797

ATTORNEY DOCKET NUMBER:	8836L-1447 (LO-281097-US)
NAME OF SUBMITTER:	DAVID L. HEATH
SIGNATURE:	/DAVID L. HEATH/
DATE SIGNED:	07/24/2019
	This document serves as an Oath/Declaration (37 CFR 1.63).

PATENT REEL: 049851 FRAME: 0972

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Total Attachments: 10 source=8836L-1447_COMBINED-DECLARATION_ASSIGNMENT#page1.tif source=8836L-1447_COMBINED-DECLARATION_ASSIGNMENT#page2.tif source=8836L-1447_COMBINED-DECLARATION_ASSIGNMENT#page3.tif source=8836L-1447_COMBINED-DECLARATION_ASSIGNMENT#page4.tif source=8836L-1447_COMBINED-DECLARATION_ASSIGNMENT#page5.tif source=8836L-1447_COMBINED-DECLARATION_ASSIGNMENT#page6.tif source=8836L-1447_COMBINED-DECLARATION_ASSIGNMENT#page7.tif source=8836L-1447_COMBINED-DECLARATION_ASSIGNMENT#page8.tif source=8836L-1447_COMBINED-DECLARATION_ASSIGNMENT#page9.tif source=8836L-1447_COMBINED-DECLARATION_ASSIGNMENT#page9.tif

PATENT REEL: 049851 FRAME: 0973

SDC Ref No. LO-201803-034-1-US0

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: **ELECTRONIC DEVICE** for which Assignor is about to make or has made United States or International application for patent. WHEREAS, as a below named inventor(s), I/(we) hereby declare that: Section I. Declaration This declaration is directed to: nation 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 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.

Attorney Ref No

KORYO IP & LAW

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 Display Co., Ltd.

having an address at 1, Samsung-Ro, GiHeung-Gu, Yongin Si, Gyeonggi-Do, 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-examination, or extension thereof, and for litigation regarding, or for the purpose of

SDC Ref No. LO-201803-034-1-USO Attorney Ref No. 8836.TEM7dlh

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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 F.Chau & Associates, LLC 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 FIRST INVENTOR/ASSIGNOR	Family Name SHIM	Jinbo		
	i			ī
SIGNATURE	Jinbe Shitum		2019-5-13	:

SDC Ref No. LO-201803-034-1-USO Attorney Ref No. 88301547/dih

KORYO IP & LAW REEL: 049851 FRAME: 0976

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SECOND — INVENTOR/ASSIGNOR	KIM	Kyungseop	
		L	
SIGNATURE	Kin Kaurisso	DATE	K-12 2014

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
THIRD INVENTOR/ASSIGNOR	PARK:	Sungkyun	
SIGNATURE	Sung Kyun Par	DATE	5:13, 2019

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FOURTH INVENTOR/ASSIGNOR	СНОІ	Wonsuk	
SIGNATURE	Wonsuk Choi	DATE	2019,5,13

SDC Ref No. LO-201803-034-1-US0 Attorney Ref No. 8530 FRAME: 0977

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FIFTH INVENTOR/ASSIGNOR	CHOI	Jaewon	
,			
SIGNATURE _		DATE	

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SIXTH INVENTOR/ASSIGNOR	HONG	Jung-mao	
SIGNATURE	<u> </u>	DATE	2019, 5, 13
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SDC Ref No. LO-201803-034-1-USO Attorney Ref No. 8830 TENT/dlh KORYO IP & LAW REEL: 049851 FRAME: 0978

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

		ned acknowledges that this document is being used both as an assignment of and as the declaration (37 CFR 1.63) for a Utility or Design Application.
		e undersigned, hereinafter referred to collectively as Assignor, has invented:
Title:	ELEC	TRONIC DEVICE
for whi for pat		ignor is about to make or has made United States or International application
WHERE	EAS, as	a below named inventor(s), I/(we) hereby declare that:
Section	ı I. De	claration
This de	clarati	on is directed to:
	\boxtimes	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 ab	ove-ide	entified application was made or authorized to be made by me (us).
		that I am (we are) the original inventor (original joint inventors) of a claimed he above-identified application.
		acknowledge that any willful false statement made in this declaration is or not more than five (5) years, or
¹ This fo	orm req	uires the use of an Application Data Sheet.
***********	***************************************	

SDC Ref No. LO-201803-034-1-US0 Attorney Ref No. 883**PATENIT**KORYO IP & LAW REEL: 049851 FRAME: 0979

SAMSUNG DISPLAY 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 Display Co., Ltd.

having an address at 1, Samsung-Ro, GiHeung-Gu, Yongin Si, Gyeonggi-Do, 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

883 PATENT SDC Ref No. LO-201803-034-1-U50 Attorney Ref No. REEL: 049851 FRAME: 0980

KORYO IP & LAW

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 **F.Chau & Associates**, **LLC** 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 FIRST INVENTOR/ASSIGNOR	Family Name	First Given Name	Second Given Name
	SHIM	Jinbo	
		n.c.	
SIGNATURE		DATE .	·

SDC Ref No. LO-201803-034-1-US0 Attorney Ref No. 883**RA4ENIT**KORYO IP & LAW REEL: **049851 FRAME**: **0981**

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SECOND INVENTOR/ASSIGNOR	KIM	Kyungseop	
SIGNATURE		DATE	
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
THIRD INVENTOR/ASSIGNOR	PARK	Sungkyun	
SIGNATURE	·····	DATE	<u> </u>
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
LEGAL NAME OF FOURTH INVENTOR/ASSIGNOR	Family Name CHOI	First Given Name Wonsuk	Second Given Name
FOURTH			Second Given Name

SDC Ref No. LO-201803-034-1-US0 Attorney Ref KORYO IP & LAW

Attorney Ref No. 883 **RATENT**O IP & LAW **REEL: 049851 FRAME: 0982**

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FIFTH INVENTOR/ASSIGNOR	CHOI	Jaewon	
	<i>J</i> .		
SIGNATURE	AL	DATE	7/2/2018

LEGAL NAME OF SIXTH INVENTOR/ASSIGNOR	Family Name	First Given Name	Second Given Name
	HONG	Jung-moo	
SIGNATURE		DATE	

SDC Ref No. LO-201803-034-1-US0 Attorney Ref No. 8836L**PAT/ENT**

RECORDED: 07/24/2019

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REEL: 049851 FRAME: 0983