503071716 11/21/2014

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3118320

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
SEQUENCE:	1

CONVEYING PARTY DATA

Name	Execution Date
HYUN-WOO KIM	11/21/2014
CHEOL HONG PARK	11/21/2014

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:	443-742

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14549911

CORRESPONDENCE DATA

Fax Number: (703)207-0003

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: 703-207-0008

Email: eoa@lee-iplaw.com

Correspondent Name: LEE & MORSE, P.C.

Address Line 1: 3141 FAIRVIEW PARK DRIVE

Address Line 2: SUITE 500

Address Line 4: FALLS CHURCH, VIRGINIA 22042

ATTORNEY DOCKET NUMBER:	249/1055
NAME OF SUBMITTER:	JAY P. BEALE
SIGNATURE:	/Jay P. Beale/
DATE SIGNED:	11/21/2014
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 12

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PATENT 503071716 REEL: 034229 FRAME: 0722

COMBINED DECLARATION (37 CFR §1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM¹ FOR MORE THAN ONE ASSIGNEE

The undersigned acknowledge 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 inventors have invented:

· · · · · · · · · · · · · · · · · · ·	the analysighed inventors have h	rvented.	
	MPOSITION FOR FORMING RMATION METHOD EMPLO		D RESIST PATTERN
for which Inv	rentors are about to make or has n	nade United States or Inte	rnational application for
WHEREAS,	as a below named inventor(s), I/(we) hereby declare that:	
Section I. De	eclaration		
This declarati	on is directed to:		
\boxtimes	The attached U.S. non-provision	onal patent application, or	
	U.S. non-provisional patent app	lication number	, filed on
	PCT international patent applica	ation number	, filed on
The above-ide	entified application was made or a	authorized to be made by i	me (us).
l (we) believe invention in th	that I am (we are) the original in ne above-identified application.	ventor (original joint inve	ntors) of a claimed
l (we) hereby under 18 U.S.	acknowledge that any willful fals C. 1001 by fine or imprisonment	se statement made in this of of not more than five (5)	leclaration is punishable years, or both.
I hereby state application, in	that I have reviewed and understacluding the claims.	and the contents of the abo	ove identified
	e that I am aware of the duty to diss defined in 37 CFR § 1.56.	sclose information which	is material to
¹ This form requ	uires the use of an Application Data She	et.	
SEC Ref No.	IE-201309-030-1-US0	Attorney Ref No.	249/1055
COMBINED D	DECLARATION (37 CFR 1.63) FOR U	TILITY PATENT APPLICAT	ION AND ASSIGNMENT

FORM Page 1 of 6

<u>Power of Attorney:</u> I/we hereby appoint as my attorneys, with full powers of substitution and revocation, to prosecute this application and transact all business in the Patent and Trademark Office practitioners associated with **Customer Number 27849**.

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, collectively referred to in Section II as Assignors in this section, hereby sell(s) and assign(s) to

Samsung Electronics Co., Ltd.

having an address at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-742, 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 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;

SEC Ref No. IE-201309-030-1-US0	Attorney Ref No.	249/1055		
COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM				
	Page 2 of 6			

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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 LEE & MORSE, PC 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.

Inventor(s)/Assignor(s) Signature(s) for Section II.

LEGAL NAME OF FIRST	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	KIM	Hyun-woo	
SIGNATURE	74 th of	DATE -	Nov. 21, 2014

LEGAL NAME OF SECOND	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	PARK	Cheol hong	
SIGNATURE _	游 装 毫	DATE	NOV.21, 20/4

SEC Ref No.	IE-201309-030-1-US0	Attorney Ref No.	249/1055

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page $\bf 3$ of $\bf 6$

Samsung Electronics Co., Ltd.
AZ Electronic Materials (Luxembourg) S.a.r.l.

Section III. Assignment

In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, collectively referred to in Section III as Assignors in this section, hereby sell(s) and assign(s) to

AZ Electronic Materials (Luxembourg) S.a.r.l.

having an address at 32-36, Boulevard d' Avranches 1160 Luxembourg, Grand Duchy of Luxembourg (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 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

SEC Ref No.	IE-201309-030-1-US0	Attorney Ref No.	249/1055	
COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM				
Page 4 of 6				

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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 LEE & MORSE, PC 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.

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

LEGAL NAME OF

LEGAL NAME OF FIRST	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	OKAYASU	Tetsuo	
SIGNATURE _		DATE 	
LEGAL NAME OF SECOND	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	WANG	Xiaowei	
SIGNATURE _		DATE	
SEC Ref No. 1F-201309)-030-1-1/S0	Attorney Ref No	240/1055

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page 5 of 6

LEGAL NAME OF THIRD	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	PAWLOWSKI	Georg	
SIGNATURE		DATE	
LEGAL NAME OF FOURTH	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	HAMA	Yusuke	
SIGNATURE _		DATE	

SEC Ref No.	1E-201309-030-1-US0	Attorney Ref No.	249/1055	

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page 6 of 6 $\,$

COMBINED DECLARATION (37 CFR §1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM¹ FOR MORE THAN ONE ASSIGNEE

The undersigned acknowledge 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.

WHER	EAS, t	he undersigned inventors have i	nvented:	
Title:		IPOSITION FOR FORMING MATION METHOD EMPLO		D RESIST PATTERN
for whi	ch Inve	entors are about to make or has r	made United States or Inter	rnational application for
WHER	EAS, a	s a below named inventor(s), I/((we) hereby declare that:	
Section	I. De	claration		
This de	claratio	on is directed to:		
	\boxtimes	The attached U.S. non-provision	onal patent application, or	
		U.S. non-provisional patent app		, filed on
		PCT international patent applic	ation number	, filed on
The abo	ve-ide	ntified application was made or	authorized to be made by r	ne (us).
I (we) b inventic	elieve on in th	that I am (we are) the original in e above-identified application.	nventor (original joint inven	ntors) of a claimed
I (we) h under 1	ereby a 8 U.S.O	acknowledge that any willful fall. C. 1001 by fine or imprisonment	se statement made in this d of not more than five (5) y	leclaration is punishable years, or both.
I hereby applicat	state t	hat I have reviewed and underst cluding the claims.	and the contents of the abo	ove identified
		that I am aware of the duty to d defined in 37 CFR § 1.56.	isclose information which	is material to
This fo	rm requ	ires the use of an Application Data Sho	eet.	
SEC Re	ef No	IE-201309-030-1-US0	Attorney Ref No.	249/1055
COMB	INED D	ECLARATION (37 CFR 1.63) FOR U F	JTILITY PATENT APPLICATI ORM	ION AND ASSIGNMENT

Page 1 of 6

<u>Power of Attorney:</u> I/we hereby appoint as my attorneys, with full powers of substitution and revocation, to prosecute this application and transact all business in the Patent and Trademark Office practitioners associated with **Customer Number 27849**.

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, collectively referred to in Section II as Assignors in this section, hereby sell(s) and assign(s) to

Samsung Electronics Co., Ltd.

having an address at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-742, 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 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;

SEC Ref No.	IE-201309-030-1-US0	Attorney Ref No.	249/1055
COMBINED DECI	LARATION (37 CFR 1.63) FOR UT	TILITY PATENT APPLICA	TION AND ASSIGNMENT
	= -	2 of 6	

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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First Given Name | Second Given Name |

Family Name

Inventor(s)/Assignor(s) Signature(s) for Section II.

LEGAL NAME OF

FIRST INVENTOR/ASSIGNOR	KIM	Hyun-woo	
SIGNATURE _		DATE —	
LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SECOND INVENTOR/ASSIGNOR	PARK	Cheol hong	
SIGNATURE _		DATE —	
SEC Ref NoIE-2013 COMBINED DECLARATION	I (37 CFR 1.63) FOR UTII	LITY PATENT APPLICATIO	
	FOR Page 3		

Section III. Assignment

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AZ Electronic Materials (Luxembourg) S.a.r.l.

having an address at 32-36, Boulevard d' Avranches 1160 Luxembourg, Grand Duchy of Luxembourg (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.

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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 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:

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		··	
SEC Ref No.	IE-201309-030-1-US0	Attorney Ref No	249/1055
COMBINED DEC	CLARATION (37 CFR 1.63) FOR	UTILITY PATENT APPLICA	TION AND ASSIGNMENT
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	Pa	age 4 of 6	

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

LEGAL NAME OF FIRST	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	OKAYASU	Tetsuo	
	<u> </u>		
SIGNATURE _	Tetsuo Okayasn	DATE	November 21,2014

LEGAL NAME OF SECOND	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	WANG	Xiaowei	
SIGNATURE ✓	jaowei Wan	DATE 4	November 21,2014

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SEC Ref No.	IE-201309-030-1-US0	Attorney Ref No.	249/1055
COMBINED DE	ECLARATION (37 CFR 1.63) FOR U	UTILITY PATENT APPLICA	TION AND ASSIGNMENT
	J	FORM	
	Pa	ge 5 of 6	

LEGAL NAME OF THIRD	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	PAWLOWSKI	Georg	
SIGNATURE	Gley Pac.	DATE	November 21,2014
SIGNATURE _			

LEGAL NAME OF FOURTH	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	HAMA	Yusuke	
		<u> </u>	

SEC Ref No.	IE-201309-030-1-US0	Attorney Ref No.	249/1055
COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM			

Page 6 of 6

PATENT REEL: 034229 FRAME: 0735

RECORDED: 11/21/2014