PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
In-Bae KIM	11/12/2012
Jong-Hyun CHOUNG	11/12/2012
Seon-II KIM	11/12/2012
Hong-Sick PARK	11/12/2012
Wang Woo LEE	11/12/2012
Jae-Woo JEONG	11/12/2012
In Seol KUK	12/10/2012
Sang-Tae KIM	12/10/2012
Young-Chul PARK	12/10/2012
Keyong Bo SHIM	12/10/2012
In-Ho YU	12/10/2012
Young-Jin YOON	12/10/2012
Suck-Jun LEE	12/10/2012
Joon-Woo LEE	12/10/2012
Sang-Hoon JANG	12/10/2012
Young-Jun JIN	12/10/2012

RECEIVING PARTY DATA

Name:	Samsung Display Co., Ltd.	
Street Address: 95, Samsung 2 Ro, Giheung-Gu		
Internal Address:	Address: Gyeonggi-Do	
City: Yongin-City		
State/Country:	KOREA, REPUBLIC OF	

Name:	DONGWOO FINE-CHEM CO., LTD.	
Street Address: 740-30 Sinheung-dong, 740-30 Sinheung-dong		
City:	Iksan-si	
State/Country:	KOREA, REPUBLIC OF	

PROPERTY NUMBERS Total: 1

REEL: 029493 FRAME: 0608

PATENT

Property Type	Number
Application Number:	13718557

CORRESPONDENCE DATA

Fax Number: 7032885139

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

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Correspondent Name: H.C. PARK & ASSOCIATES, PLC

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ATTORNEY DOCKET NUMBER: P5048US00		
NAME OF SUBMITTER: Hae-Chan Park		
	This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 14
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PATENT REEL: 029493 FRAME: 0609



ASSIGNMENT SERVING AS DECLARATION PER 37 C.F.R. § 1.63(e)

	As a below named inventor and Assignor, I declare that:						
	This assignment and declaration are directed to:						
	·						
The attached application entitled ETCHANT COMPOSITION AND METHOD OF FORMING METAL WIRE AND THIN FILM TRANSISTOR ARRAY PANEL USING THE SAME having attorney docket number P5048US00 ("Application"), which claims priority from: Korean Patent Application No. 10-2012-0079973, filed July 23, 2012.							
			As amended on				(if applicable);
	The	above-ide	entified Applicatio	n was made or	r au	thorized 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 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.							
Whereas, Assignor has invented certain new and useful processes, machines, articles of manufacture, compositions of matter, and/or improvements thereof ("Invention") disclosed in the Application,							
to:	Whe	ereas, Ass	ignor desires to	convey all righ	nts,	titles, and interests in	and to the same
					. 4		
	(1)	Samsun	g Display Co., L	td.	(2)	DONGWOO FINE-CH	EM CO.,
			sung 2 Ro, Giheu ity, Gyeonggi-do orea	ing-gu		740-30 Sinheung-dong Sinheung-dong Iksan-si South Korea	g, 740-30

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referred to as ("Assignees").

Samsung Display Co., Ltd., DONGWOO FINE-CHEM CO., LTD. herein further



Now, for valuable consideration by Assignees to Assignor, the receipt of which is hereby acknowledged, and for other good and valuable consideration, Assignees and Assignor hereby agree as follows:

Assignor hereby conveys, assigns, sells and transfers to Assignees all rights, title and interests in and to the Invention disclosed in said application and in and to any Letters Patent of the United States (US), any continuation, division, renewal, or substitute thereof, and hereby grant to Assignees the right to apply in its own name for patents or Inventor's certificates and related rights heretofore or hereafter filed for the Invention in any and all countries, including (without limitation) all rights to claim priority based thereon, all patents granted thereon and all reissues, extensions and renewals thereof.

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

Assignor further covenants that Assignees will, upon Assignees' request, be provided promptly with all pertinent facts and documents relating to the Invention, Patent, Application and any patents granted thereon, as may be known and accessible to Assignor, and Assignor will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to Assignees or Assignees' legal representative any and all papers, instruments or affidavits required to apply for, protect, obtain, maintain, issue, defend and enforce the Application, Patent, Invention, whether in the US or any and all foreign countries and any patents granted thereon, and/or for obtaining any reissue or reissues of any patent which may be granted for the invention and perform such further acts which may be necessary or desirable to carry out the intent of this agreement as the Assignee thereof shall hereafter require and prepare at assignee's expense.

IN WITNESS WHEREOF, Inventor and Assignor has hereunto set hand and seal.

First Inventor's and Assignor's Name:	In-Bae KIM
Address:	Nancho-524, San 24, Nongseo-dong Giheung-gu, Gyeonggi-do Yongin-si Republic of Korea
First Inventor's and Assignor's Signature:	In Bae KIM
Date:	November 12, 2012



Second Inventor's and Assignor's Name:	Jong-Hyun CHOUNG
Address:	102-1301, Sinyeongtong Hyundai 1-cha Apt. Banwol-dong, Gyeonggi-do Hwaseong-si Republic of Korea
Second Inventor's and Assignor's Signature:	Jong-Hyun CHOUNG
Date:	November 12, 2012
Third Inventor's and Assignor's Name:	Seon-II KIM
Address:	1180-8, Sinjeong 3-dong, Yangcheon-gu Seoul Republic of Korea
Third Inventor's and Assignor's Signature:	Seon-Il Kim
Date:	November 12, 2012
Fourth Inventor's and Assignor's Name:	Hong-Sick PARK
Address:	202-1003 Hyundai I-park Apt., Mangpo-dong, Yeongtong-gu Gyeonggi-do Suwon-si
9 <u>2</u> 4	Republic of Korea
Fourth Inventor's and Assignor's Signature:	Horg-Gack Park
Date:	November 12, 2012



Fifth Inventor's and Assignor's Name	Wang Woo LEE
Address:	B-307, Jeonwon Apt., Ingye-dong Paldal-gu, Gyeonggi-do Suwon-si Republic of Korea
Fifth Inventor's and Assignor's Signature:	Warf wwo LEE
Date:	November 12, 2012
·	
Sixth Inventor's and Assignor's Name:	Jae-Woo JEONG
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Seventh Inventor's and Assignor's Signature:	
Date:	



Eighth Inventor's and Assignor's Name:	Sang-Tae KIM
Address:	802-8, Sinheung-dong Jeollabuk-do Iksan-si Republic of Korea
Eighth Inventor's and Assignor's Signature:	
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Ninth Inventor's and Assignor's Name:	Young-Chul PARK
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Ninth Inventor's and Assignor's Signature:	.
Date:	
e [±]	
Tenth Inventor's and Assignor's Name:	Keyong Bo SHIM
Address:	802-8, Sinheung-dong Jeollabuk-do Iksan-si Republic of Korea
Tenth Inventor's and Assignor's Signature:	
Date:	



Eleventh Inventor's and Assignor's Name:	In-Ho YU	
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Eleventh Inventor's and Assignor's Signature:		
Date:		
Twelfth Inventor's and Assignor's Name:	Young-Jin YOON	
Address:	205-1108, Jinheung Dubblepark, Hoseong-dong Deokjin-gu, Jeollabuk-do Jeonju-si Republic of Korea	
Twelfth Inventor's and Assignor's Signature:		
Date:		
Thirteenth Inventor's and Assignor's Name:	Suck-Jun LEE	
Address:	105-703, Jugong Apt., Songcheon-dong 2-ga, Deokjiń-gu, Jeollabuk-do Jeonju-si Republic of Korea	
Thirteenth Inventor's and Assignor's Signature:		
Date:		



Fourteenth Inventor's and Assignor's Name	: Joon-Woo LEE
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Fourteenth Inventor's and Assignor's Signature:	
Date:	
Fifteenth Inventor's and Assignor's Name:	Sang-Hoon JANG
!!	106-303, Daewoo Chowon Apt., Inhu 2-dong, Deokjin-gu, Jeollabuk-do, Jeonju-si Republic of Korea
Fifteenth Inventor's and Assignor's Signature:	
Date:	
· · · · · · · · · · · · · · · · · · ·	
Sixteenth Inventor's and Assignor's Name:	Young-Jun JIN
Address:	802-8, Sinheung-dong Jeollabuk-do Iksan-si Republic of Korea
Sixteenth Inventor's and Assignor's Signature:	
Date:	



ASSIGNMENT SERVING AS DECLARATION PER 37 C.F.R. § 1.63(e)

As a below named inventor and Assignor, I declare that:				
Th	ils assignm	ent and declaration are dire	ected to:	
P/ wł	ANEL USIN	F FORMING METAL WIRE NO THE SAME having attor priority from:	entitled ETCHANT COMPOSITION AND THIN FILM TRANSISTOR ARRA mey docket number P5048US00 ("Appl 0079973, filed July 23, 2012.	ΑY
		As amended on	(if app	licable);
Th	ie above-id	lentified Application was ma	ade or authorized to be made by me.	
I b in the App		I am the original inventor o	r an original joint inventor of a claimed	invention
I h punishabl both.	ereby ackr e under 18	nowledge that any willful fal 3 U.S.C. § 1001 by fine or in	se statement made in this declaration in mprisonment of not more than five (5) y	s ears, or
W manufact Applicatio	ure, compo	signor has invented certain ositions of matter, and/or im	new and useful processes, machines, provements thereof ("Invention") disclo	articles of sed in the
to:	hereas, As	ssignor desires to convey a	all rights, titles, and interests in and to	the same
(1)	95, Sam	ng Display Co., Ltd. nsung 2 Ro, Giheung-gu city, Gyeonggi-do orea	(2) DONGWOO FINE-CHEM CO LTD. 740-30 Sinheung-dong, 740-3 Sinheung-dong Iksan-si South Korea	

Page 1 of 7

referred to as ("Assignees").

Samsung Display Co., Ltd., DONGWOO FINE-CHEM CO., LTD. herein further



Now, for valuable consideration by Assignees to Assignor, the receipt of which is hereby acknowledged, and for other good and valuable consideration, Assignees and Assignor hereby agree as follows:

Assignor hereby conveys, assigns, sells and transfers to Assignees all rights, title and interests in and to the Invention disclosed in said application and in and to any Letters Patent of the United States (US), any continuation, division, renewal, or substitute thereof, and hereby grant to Assignees the right to apply in its own name for patents or Inventor's certificates and related rights heretofore or hereafter filed for the Invention in any and all countries, including (without limitation) all rights to claim priority based thereon, all patents granted thereon and all reissues, extensions and renewals thereof.

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

Assignor further covenants that Assignees will, upon Assignees' request, be provided promptly with all pertinent facts and documents relating to the Invention, Patent, Application and any patents granted thereon, as may be known and accessible to Assignor, and Assignor will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to Assignees or Assignees' legal representative any and all papers, instruments or affidavits required to apply for, protect, obtain, maintain, issue, defend and enforce the Application, Patent, Invention, whether in the US or any and all foreign countries and any patents granted thereon and/or for obtaining any reissue or reissues of any patent which may be granted for the invention and perform such further acts which may be necessary or desirable to carry out the intent of this agreement as the Assignee thereof shall hereafter require and prepare at assignee's expense.

IN WITNESS WHEREOF, Inventor and Assignor has hereunto set hand and seal.

First Inventor's and Assignor's Name:	In-Bae KIM
Address:	Nancho-524 ,San 24, Nongseo-dong Giheung-gu, Gyeonggi-do Yongin-si Republic of Korea
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Fourth Inventor's and Assignor's Signature:	
Date:	<u></u>



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Fifth Inventor's and Assignor's Signature:	
Date:	
Sixth Inventor's and Assignor's Name: Address:	Jae-Woo JEONG 209-1002 Kumho Apt. Cheongcheon-dong, Bupyeong-gu Incheon Republic of Korea
Sixth Inventor's and Assignor's Signature:	
Date:	
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Seventh Inventor's and Assignor's Signature:	In Seol Kuk
Date:	December 10, 2012



Eighth Inventor's and Assignor's Name:	Sang-Tae KIM
Address:	802-8, Sinheung-dong Jeollabuk-do Iksan-si Republic of Korea
Eighth Inventor's and Assignor's Signature:	Sang-Tae Kim
Date:	December 10, 2012
Ninth Inventor's and Assignor's Name:	Young-Chul PARK
Address:	114-1304, Dongsin Apt., Yeongdeung-dong, Jeollabuk-du, Iksan-si, Republic of Korea
Ninth Inventor's and Assignor's Signature:	Young-Chul PARK
Date:	December 10, 2012
Tenth Inventor's and Assignor's Name:	Keyong Bo SHIM
Address:	802-8, Sinheung-dong Jeollabuk-do Iksan-si Republic of Korea
Tenth Inventor's and Assignor's Signature:	Keyong Bo SHIM
Date:	December 10, 2012



Eleventh Inventor's and Assignor's Name:	In-Ho YU
Address:	802-8, Sinheung-dong Jeollabuk-do Iksan-si Republic of Korea
Eleventh Inventor's and Assignor's Signature:	In-Ho YU
Date:	December 10, 2012
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Thirteenth Inventor's and Assignor's Name:	Suck-Jun LEE
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Date:	December 10, 2012



Fourteenth Inventor's and Assignor's Name	e: Joon-Woo LEE
Address:	105-1403, Daewoo Daechang Apt., Seosin-dong, Wansan-gu, Jeollabuk-do, Jeonju-si Republic of Korea
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Filteenth inventors and Assignors Name.	
Address:	106-303, Daewoo Chowon Apt., Inhu 2-dong, Deokjin-gu, Jeollabuk-do, Jeonju-si Republic of Korea
Fifteenth Inventor's and Assignor's Signature:	Song-Hoon JANG
Date:	December 10, 2012
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Sixteenth Inventor's and Assignor's Name:	roung-Jun Jiiv
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Sixteenth Inventor's and Assignor's Signature:	Young Jun JIN
Date:	December 10, 2012

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RECORDED: 12/18/2012