

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT3313836

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HIROAKI TAO	02/01/2014
TAKEAKI MAEDA	02/01/2014
AYA MIKI	02/01/2014
TOSHIHIRO KUGIMIYA	02/01/2014
BYUNG DU AHN	03/31/2015
SO YOUNG KOO	03/31/2015
GUN HEE KIM	03/31/2015

RECEIVING PARTY DATA

Name:	KABUSHIKI KAISHA KOBE SEIKO SHO (KOBE STEEL, LTD.)
Street Address:	2-4, WAKINOHAMA-KAIGANDORI 2-CHOME, CHUO-KU
City:	KOBE-SHI, HYOGO
State/Country:	JAPAN
Postal Code:	651-8585
Name:	SAMSUNG DISPLAY CO., LTD.
Street Address:	95, SAMSUNG 2 RO, GIHEUNG-GU
City:	YONGIN-CITY, GYEONGGI-DO
State/Country:	KOREA, REPUBLIC OF

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14436241

CORRESPONDENCE DATA

Fax Number: (703)413-2220

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) 413-3000

Email: etsuji@oblon.com

Correspondent Name: OBLON, ET AL.

Address Line 1: 1940 DUKE STREET

Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	452053US99X PCT
NAME OF SUBMITTER:	ERIKO TSUJI
SIGNATURE:	/Eriko Tsuji/
DATE SIGNED:	04/16/2015

Total Attachments: 5

source=452053USASSIGNMENT#page1.tif

source=452053USASSIGNMENT#page2.tif

source=452053USASSIGNMENT#page3.tif

source=452053USASSIGNMENT#page4.tif

source=452053USASSIGNMENT#page5.tif

ASSIGNMENT OF APPLICATION

WHEREAS I (WE) HIROAKI TAO, TAKEAKI MAEDA, AYA MIKI and TOSHIHIRO KUGIMIYA of c/o Kobe Corporate Research Laboratories in Kobe Steel, Ltd. 5-5, Takatsukadai 1-chome, Nishi-ku, Kobe-shi, Hyogo 651-2271 Japan,

Byung Du AHN of 121-302, 277, Dongtanbanseok-ro, Hwaseong-city, Gyeonggi-do, Korea, So Young KOO of 904-504, 76, Pungdeokcheon-ro, Suji-gu, Yongin-city, Gyeonggi-do, Korea and Gun Hee KIM of 1103-1901, 27, Jangjaero, Baebang-eup, Asan-city, Chungcheongnam-do, Korea

respectively, have invented certain new and useful improvements in:

THIN FILM TRANSISTOR

(Application No. _____, filed _____), and

WHEREAS, Kabushiki Kaisha Kobe Seiko Sho (Kobe Steel, Ltd.) having a place of business at: 2-4, Wakinohama-Kaigandori 2-chome, Chuo-ku, Kobe-shi, Hyogo, 651-8585, Japan, and Samsung Display Co., Ltd. having a place of business at: 95, Samsung 2 Ro, Giheung-Gu, Yongin-City, Gyeonggi-Do, Korea

(hereinafter referred to as "ASSIGNEE") is/are desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted therefore in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behalf of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, make all rightful oaths, and generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, L.L.P. of 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314 U.S.A. the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date February 1, 2014

田尾博昭

HIROAKI TAO

Date February 1, 2014

前田剛彰

TAKEAKI MAEDA

Date February 1, 2014

三木綾

AYA MIKI

Date February 1, 2014

釘宮敏洋

TOSHIHIRO KUGIMIYA

Date

Byung Du AHN

Date

So Young KOO

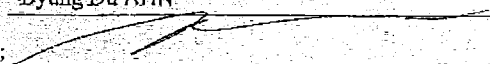
Date

Gun Hee KIM

Date

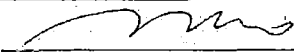
Date

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR MULTIPLE ASSIGNEES

Title of Invention	THIN FILM TRANSISTOR
As the below named inventor, I hereby declare that:	
This declaration <input type="checkbox"/> The attached application, or	
is directed to: <input checked="" type="checkbox"/> United States application or PCT international application number <u>PCT/IP2013/077913</u> filed on <u>October 15, 2013</u>	
The above-identified application was made or authorized 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.	
WHEREAS, <u>KABUSHIKI KAISHA KOBE SEIKO SHO (KOBE STEEL, LTD.) and Samsung Display Co., Ltd.</u>	
(hereinafter referred to as "ASSIGNEES") having places of business at: <u>2-4, Wakinohama-Kaigandori 2-chome, Chuo-ku, Kobe-shi, Hyogo 651-8585 Japan and 95, Samsung 2 Ro, Giheung-Gu, Yongin-City, Gyeonggi-Do, Korea,</u> respectively are desirous of jointly acquiring interests in the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;	
NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I, by these presents do sell, assign and transfer unto said ASSIGNEES, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.	
I hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEES as the assignees of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEES, their successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this Assignment and sale not been made.	
Further, I agree that I will communicate to said ASSIGNEES or their representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEES, make all rightful oaths, and generally do everything possible to aid said ASSIGNEES, their successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.	
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.	
LEGAL NAME OF INVENTOR	
Inventor: <u>Byung Du AHN</u>	Date: <u>March 31, 2015</u>
Signature: 	

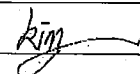
OBLON, McCLELLAND, MAIER & NEUSTADT, L.L.P.
ATTORNEYS AT LAW
1940 DUKE STREET
ALEXANDRIA, VIRGINIA 22314

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR MULTIPLE ASSIGNEES

Title of Invention	THIN FILM TRANSISTOR
<p>As the below named inventor, I hereby declare that:</p> <p>This declaration <input type="checkbox"/> The attached application, or</p> <p>is directed to: <input checked="" type="checkbox"/> United States application or PCT international application number <u>PCI/JP2013/077913</u> filed on <u>October 15, 2013</u></p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p>WHEREAS, <u>KABUSHIKI KAISHA KOBE SEIKO SHO (KOBE STEEL, LTD.) and Samsung Display Co., Ltd.</u> (hereinafter referred to as "ASSIGNEES") having places of business at: <u>2-4, Wakinohama-Kaigandori 2-chome, Chuo-ku, Kobe-shi, Hyogo 651-8585 Japan and 95, Samsung 2 Ro, Giheung-Gu, Yongin-City, Gyeonggi-Do, Korea,</u> respectively are desirous of jointly acquiring interests in the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;</p> <p>NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I, by these presents do sell, assign and transfer unto said ASSIGNEES, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.</p> <p>I hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEES as the assignees of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEES, their successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this Assignment and sale not been made.</p> <p>Further, I agree that I will communicate to said ASSIGNEES or their representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEES, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEES, their successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.</p> <p>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.</p>	
LEGAL NAME OF INVENTOR	
Inventor: <u>So Young KOO</u>	Date: <u>March 31, 2015</u>
Signature: 	

OBLON, McCLELLAND, MAIER & NEUSTADT, L.L.P.
 ATTORNEYS AT LAW
 1940 DUKE STREET
 ALEXANDRIA, VIRGINIA 22314

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR MULTIPLE ASSIGNEES

Title of Invention	THIN FILM TRANSISTOR
<p>As the below named inventor, I hereby declare that:</p> <p>This declaration <input type="checkbox"/> The attached application, or</p> <p>is directed to: <input checked="" type="checkbox"/> United States application or PCT international application number <u>PCT/JP2013/077913</u> filed on <u>October 15, 2013</u></p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p>WHEREAS, <u>KABUSHIKI KAISHA KOBE SEIKO SHO (KOBELITEEL, LTD.) and Samsung Display Co., Ltd.</u> <u>(hereinafter referred to as "ASSIGNEES")</u> having places of business at: <u>2-4, Wakinhama-Kaigandori 2-chome, Chuo-ku, Kobe-shi, Hyogo 651-8585 Japan and 95, Samsung 2 Ro, Giheung-Gu, Yongin-City, Gyeonggi-Do, Korea,</u> respectively are desirous of jointly acquiring interests in the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;</p> <p>NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I, by these presents do sell, assign and transfer unto said ASSIGNEES, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.</p> <p>I hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEES as the assignees of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEES, their successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this Assignment and sale not been made.</p> <p>Further, I agree that I will communicate to said ASSIGNEES or their representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEES, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEES, their successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.</p> <p>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.</p>	
LEGAL NAME OF INVENTOR	
Inventor: <u>Gun Hee KIM</u>	Date: <u>March 31, 2015</u>
Signature: 	

OBLON, McCLELLAND, MAIER & NEUSTADT, L.L.P.
 ATTORNEYS AT LAW
 1940 DUKE STREET
 ALEXANDRIA, VIRGINIA 22314