### 502671480 02/07/2014

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT2718087

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
SHINTARO NAKANO	10/24/2013
TOMOMASA UEDA	10/25/2013
KENTARO MIURA	10/25/2013
NOBUYOSHI SAITO	10/24/2013
TATSUNORI SAKANO	10/25/2013
YUYA MAEDA	10/24/2013
HAJIME YAMAGUCHI	10/25/2013

### **RECEIVING PARTY DATA**

Name:	KABUSHIKI KAISHA TOSHIBA
Street Address:	1-1, SHIBAURA 1-CHOME, MINATO-KU
City:	ТОКУО
State/Country:	JAPAN

### PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14175169

### CORRESPONDENCE DATA

 Fax Number:
 (703)413-2220

 Phone:
 (703) 413-3000

 Email:
 AAdams@oblon.com

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

Correspondent Name: OBLON, SPIVAK, ET AL.
Address Line 1: 1940 DUKE STREET

Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	429693US20RD
NAME OF SUBMITTER:	ARIELLE ADAMS

502671480 REEL: 032172 FRAME: 0341

Signature:	/Arielle Adams/	
Date:	02/07/2014	
This document serves as an Oath/Declaration (37 CFR 1.63).		
Total Attachments: 7 source=429693USASN#page1.tif source=429693USASN#page2.tif source=429693USASN#page3.tif source=429693USASN#page4.tif source=429693USASN#page5.tif source=429693USASN#page6.tif source=429693USASN#page7.tif		

Invention	MANUFACTURING DISPLAY DEVICE, AND METHOD FOR		
	MANUFACTURING THIN FILM TRAN		
As the below name	ed inventor, I hereby declare that:		
_	The attached application, or		
	United States application or PCT international filed on	·	
	ed application was made or authorized to be made	1	
I believe that I am	the original inventor or an original joint inventor	of a claimed invention in the application.	
(hereinafter referred <u>Japan</u> , is desirous Patent that may be countries;	s of acquiring the entire right, title and interest in e granted therefore in the United States and its	s at: 1-1, Shibaura 1-chome, Minato-ku, Tokyo, and to said invention and in and to any Letters territorial possessions and in any and all foreign	
acknowledged, an said ASSIGNEE, and in all foreign other relevant Interinterest in and to possessions and is substitutions and research.	d for other good and valuable consideration, I, be the full and exclusive right to the said invention countries (including the right to claim priority un ernational Treaties and Arrangements from the af- any and all Letters Patent which may be granted in any and all foreign countries and in and to renewals thereof.	OLLARS (\$5.00), the receipt whereof is hereby by these presents do sell, assign and transfer unto in the United States and its territorial possessions der the terms of the International Convention and foresaid application) and the entire right, title and therefor in the United States and its territorial or any and all divisions, reissues, continuations,	
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 ASSIGNEE as the assignee of my entire right, title and interest in and to the same, for the sole use and behoof 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 had this Assignment and sale not been made.			
Further, I agree that I will communicate to said ASSIGNEE or its (his) 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 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.			
I hereby acknowly by fine or imprison	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	October 24, 2013	
Inventor: Shint	aro NAKANO	Date:	
Signature: Shistar Markano			

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

Title of Invention	,		
mvention	MANUFACTURING DISPLAT DEVICE MANUFACTURING THIN FILM TRA		
As the below name	ed inventor, I hereby declare that:		
This declaration	The attached application, or		
is directed to:	United States application or PCT international filed on	application number	
	ed application was made or authorized to be made		
I believe that I am	the original inventor or an original joint inventor	r of a claimed invention in the application.	
WHEREAS, Kabushiki Kaisha Toshiba (hereinafter referred to as "ASSIGNEE") having places of business at: 1-1, Shibaura 1-chome, Minato-ku, Tokyo, Japan, is 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;			
acknowledged, an said ASSIGNEE, and in all foreign other relevant Inte- interest in and to possessions and is substitutions and i	d for other good and valuable consideration, I, the full and exclusive right to the said invention countries (including the right to claim priority usernational Treaties and Arrangements from the any and all Letters Patent which may be grant in any and all foreign countries and in and trenewals thereof.	bolliars (\$5.00), the receipt whereof is hereby by these presents do sell, assign and transfer unto in the United States and its territorial possessions and the terms of the International Convention and aforesaid application) and the entire right, title and the terms of the United States and its territorial to any and all divisions, reissues, continuations,	
any and all foreig assignee of my er (his) successors a entirely as the san	gn countries to issue any and all of said Letters ntire right, title and interest in and to the same, hand assigns, to the full end of the term for which the would have been held by me had this Assignr	he United States and its territorial possessions and solutions Patent, when granted, to said ASSIGNEE as the for the sole use and behoof of said ASSIGNEE, its had Letters Patent may be granted, as fully and ment and sale not been made.	
Further, I agree that I will communicate to said ASSIGNEE or its (his) 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 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.			
I hereby acknowly fine or imprison	owledge that any willful false statement made in onment of not more than five (5) years, or both.	this declaration is punishable under 18 U.S.C. 1001	
LEGAL NAME	OF INVENTOR	Otober 25;	
Inventor: Tomo	omasa UEDA	Date: 2013	
Signature: Ton	nomasa Veda		

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

Title of Invention			
Invention	MANUFACTURING THIN FILM TRA		
As the below name	ed inventor, I hereby declare that:		
This declaration	The attached application, or		
	United States application or PCT international filed on	·	
	ed application was made or authorized to be ma		
I believe that I am	the original inventor or an original joint invento	or of a claimed invention in the application.	
(hereinafter referred Japan), is desirous Patent that may be countries;	s of acquiring the entire right, title and interest e granted therefore in the United States and it	ness at: 1-1, Shibaura 1-chome, Minato-ku, Tokyo, t in and to said invention and in and to any Letters ts territorial possessions and in any and all foreign	
acknowledged, and said ASSIGNEE, and in all foreign of other relevant Inte- interest in and to possessions and it substitutions and r	d for other good and valuable consideration, I, the full and exclusive right to the said inventio countries (including the right to claim priority ternational Treaties and Arrangements from the any and all Letters Patent which may be grar in any and all foreign countries and in and renewals thereof.	DOLLARS (\$5.00), the receipt whereof is hereby by these presents do sell, assign and transfer unto on in the United States and its territorial possessions under the terms of the International Convention and aforesaid application) and the entire right, title and inted therefor in the United States and its territorial to any and all divisions, reissues, continuations,	
any and all foreig assignee of my en (his) successors a entirely as the san	on countries to issue any and all of said Letter intire right, title and interest in and to the same, and assigns, to the full end of the term for whi are would have been held by me had this Assign	the United States and its territorial possessions and ers Patent, when granted, to said ASSIGNEE as the , for the sole use and behoof of said ASSIGNEE, its ich said Letters Patent may be granted, as fully and nment and sale not been made.	
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I hereby acknow	owledge that any willful false statement made in comment of not more than five (5) years, or both.	n this declaration is punishable under 18 U.S.C. 1001	
LEGAL NAME O	OF INVENTOR	October 25, Date: 20/3	
Inventor: Kenta	aro MIURA	Date: 20/3	
Signature: Ko	ytaro Ming		

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

Title of Invention			
Invention	MANUFACTURING DISPLAT DEVICE, AN MANUFACTURING THIN FILM TRANSIS		
As the below name	ned inventor, I hereby declare that:		
	☐ The attached application, or		
	United States application or PCT international applifiled on	cation number	
	ied application was made or authorized to be made by r		
I believe that I am	n the original inventor or an original joint inventor of a c	claimed invention in the application.	
WHEREAS, Kabushiki Kaisha Toshiba (hereinafter referred to as "ASSIGNEE") having places of business at: 1-1, Shibaura 1-chome, Minato-ku, Tokyo, Japan, is 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;			
acknowledged, an said ASSIGNEE, and in all foreign other relevant Into interest in and to possessions and substitutions and	EFORE, in consideration of the sum of FIVE DOLL, and for other good and valuable consideration, I, by the the full and exclusive right to the said invention in the accountries (including the right to claim priority under the ternational Treaties and Arrangements from the aforesa of any and all Letters Patent which may be granted the in any and all foreign countries and in and to any arenewals thereof.	e United States and its territorial possessions the terms of the International Convention and aid application) and the entire right, title and erefor in the United States and its territorial and all divisions, reissues, continuations,	
any and all forcig assignce of my et (his) successors a entirely as the sar	orize and request the Patent Office Officials in the Unign countries to issue any and all of said Letters Paterentire right, title and interest in and to the same, for the and assigns, to the full end of the term for which said time would have been held by me had this Assignment a	e sole use and behoof of said ASSIGNEE, its laters Patent may be granted, as fully and and sale not been made.	
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I hereby ackno	nowledge that any willful false statement made in this desonment of not more than five (5) years, or both.	eclaration is punishable under 18 U.S.C. 1001	
LEGAL NAME	OF INVENTOR	Caraban 24	
Inventor: Nobi	ouyoshi SAITO	Date: 2013	
Signature: No	olyoshi SAITO olayoshi Faito		
L'ALELONIO.	· · · · · · · · · · · · · · · · · · ·		

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

Title of Invention	· · · · · · · · · · · · · · · · · · ·		
mvention	MANUFACTURING DISPLAT DEVICE		
As the below name	ed inventor, I hereby declare that:		
This declaration	The attached application, or		
is directed to:	United States application or PCT international filed on		
	ed application was made or authorized to be made		
I believe that I am	the original inventor or an original joint inventor	of a claimed invention in the application.	
(hercinafter referred Japan), is desirous Patent that may be countries;	s of acquiring the entire right, title and interest is e granted therefore in the United States and its	is at: 1-1, Shibaura 1-chome, Minato-ku, Tokyo, in and to said invention and in and to any Letters territorial possessions and in any and all foreign	
acknowledged, an said ASSIGNEE, and in all foreign other relevant Inte interest in and to possessions and is substitutions and i	d for other good and valuable consideration, I, the full and exclusive right to the said invention countries (including the right to claim priority ure rnational Treaties and Arrangements from the a any and all Letters Patent which may be granted in any and all foreign countries and in and the renewals thereof.	OLLARS (\$5.00), the receipt whereof is hereby by these presents do sell, assign and transfer unto in the United States and its territorial possessions ader the terms of the International Convention and foresaid application) and the entire right, title and ed therefor in the United States and its territorial or any and all divisions, reissues, continuations,	
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LEGAL NAME	OF INVENTOR	October 25,	
Inventor: Tatsu	nori SAKANO	Date: 20/3	
Signature:	tomois Sakare		

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

Title of Invention	The state of the s		
mvention	MANUFACTURING THIN FILM TRANSI		
As the below name	ed inventor, I hereby declare that:		
This declaration	The attached application, or		
	United States application or PCT international app filed on		
	ed application was made or authorized to be made by		
I believe that I am	the original inventor or an original joint inventor of a	a claimed invention in the application.	
(hercinafter referred Japan), is desirous Patent that may be countries;	bushiki Kaisha Toshiba ed to as "ASSIGNEE") having places of business at s of acquiring the entire right, title and interest in ar e granted therefore in the United States and its terr	itorial possessions and in any and all foreign	
acknowledged, an said ASSIGNEE, and in all foreign other relevant Inte interest in and to possessions and substitutions and	EFORE, in consideration of the sum of FIVE DOL d for other good and valuable consideration, I, by the full and exclusive right to the said invention in the countries (including the right to claim priority under ternational Treaties and Arrangements from the afore any and all Letters Patent which may be granted the in any and all foreign countries and in and to a trenewals thereof.	he United States and its territorial possessions the terms of the International Convention and esaid application) and the entire right, title and herefor in the United States and its territorial my and all divisions, reissues, continuations,	
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 ASSIGNEE as the assignee of my entire right, title and interest in and to the same, for the sole use and behoof 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 had this Assignment and sale not been made.			
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LEGAL NAME	OF INVENTOR	Octabor 29, Date: 20/3	
Inventor: Yuya	MAEDA	Date: <u>20/3</u>	
Signature: Ju	ya Maedu		

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

Title of	DISPLAY DEVICE, THIN FILM TRANSIS	
Invention	MANUFACTURING DISPLAY DEVICE, A MANUFACTURING THIN FILM TRANSI	
As the below name	ed inventor, I hereby declare that:	STOR
This declaration  The attached application, or		
is directed to: United States application or PCT international application number		
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, Kabushiki Kaisha Toshiba (hereinafter referred to as "ASSIGNEE") having places of business at: 1-1, Shibaura 1-chome, Minato-ku, Tokyo, Japan, is 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, 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 (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.		
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LEGAL NAME	OF INVENTOR	$\theta_{r} \neq 1$
Inventor: Hajin	ne YAMAGUCHI	Date: October 25,
Signature:/	Jajing Yanagashi	

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, L.L.P.

ATTORNEYS AT LAW 1940 DUKE STREET ALEXANDRIA, VIRGINIA 22314

> PATENT REEL: 032172 FRAME: 0349

RECORDED: 02/07/2014