504462992 07/19/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4509694

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
GUANGLIANG SHANG	05/08/2017
XING YAO	05/08/2017
SEUNGWOO HAN	05/08/2017
YUJIE GAO	05/08/2017
YUANBO ZHANG	05/08/2017
MING CHEN	05/08/2017
JUNGMOK JUN	05/08/2017
XUE DONG	05/08/2017

RECEIVING PARTY DATA

Name:	BOE TECHNOLOGY GROUP CO., LTD.	
Street Address:	NO. 10, JIUXIANQIAO ROAD	
Internal Address:	CHAOYANG DISTRICT	
City:	BEIJING	
State/Country:	CHINA	
Postal Code:	100015	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15541639

CORRESPONDENCE DATA

Fax Number: (216)241-0816

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: 216-622-8674

Email: ipdocket@calfee.com, kbuzinski@calfee.com

Correspondent Name: KENNETH J. SMITH

Address Line 1: CALFEE, HALTER & GRISWOLD LLP

Address Line 2: THE CALFEE BUILDING, 1405 EAST SIXTH ST.

Address Line 4: CLEVELAND, OHIO 44114

ATTORNEY DOCKET NUMBER: 31411/04114 NAME OF SUBMITTER: KENNETH J. SMITH

SIGNATURE:	/ken smith/
DATE SIGNED:	07/19/2017
	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 16	
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Title of Invention	SHIFT REGISTER UNIT, GATE DRIVING CIRCUIT AND DRIVING METHOD THEREOF, AND DISPLAY APPARATUS
As a below	named inventor, I hereby declare that:
T his decla	ration
is directed	to: Fig. 7 The attached application, or
	United States application or PCT international application numberfiled on
The above-	dentified application was made or authorized to be made by me.
I believe tha in the applic	at I am the original inventor or an original joint inventor of a claimed invention ation.
	knowledge that any willful false statement made in this declaration is under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) th.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, each undersigned inventor (hereinafter referred to as "ASSIGNOR"), do hereby:

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TO BE BINDING on the heirs; assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignee.

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LEGAL NAME	OF INVENTOR	
Inventor:	Guangliang SHANG	Date: May 8, 201
Signature:	Guargling SHANG	V

Title of Invention	SHIFT REGISTER UNIT, GATE DRIVING CIRCUIT AND DRIVING METHOD THEREOF, AND DISPLAY APPARATUS
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LEGAL NAME	OF INVENTOR	
Inventor:	Xing YAO	Date: May. 8, 2017
Signature:	Xing YAO	<i>V</i>

Title of Invention	SHIFT REGISTER UNIT, GATE DRIVING CIRCUIT AND DRIVING METHOD THEREOF, AND DISPLAY APPARATUS
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The above-i	dentified application was made or authorized to be made by me.
I believe tha in the applic	at I am the original inventor or an original joint inventor of a claimed invention action.
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LEGAL NAME	OF INVENTOR	
Inventor:	Seungwoo HAN	Date: May . 8 , 20/7
Signature:	Sayaro HAN	O

Title of Invention	SHIFT REGISTER UNIT, GATE DRIVING CIRCUIT AND DRIVING METHOD THEREOF, AND DISPLAY APPARATUS	
As a below	named inventor, I hereby declare that:	
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LEGAL NAME OF INVENTOR	
Inventor: Yujic GAO	Date: May . 8 . 7517
Signature: (Lifte SA)	· · · · · · · · · · · · · · · · · · ·

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LEGAL NAME	OF INVENTOR	
Inventor:	Yuanbo ZHANG	Date: May . 8. 2017
Signature:	Yuanko 24ANG	J

Title of Invention	SHIFT REGISTER UNIT, GATE DRIVING CIRCUIT AND DRIVING METHOD THEREOF, AND DISPLAY APPARATUS
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LEGAL NAME C	FINVENTOR		
Inventor:	Ming CHEN	Date: May	8.201]
Signature:	Ming CHEN	J	
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LEGAL NAME OF INVENTOR	
Inventor: Jungmok JUN Date: May & 201)	,
Signature: Jungmok JUN	***************************************

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The above-	identified application was made or authorized to be made by me.	
I believe that in the applic	at I am the original inventor or an original joint inventor of a claimed invention cation.	
	knowledge that any willful false statement made in this declaration is under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) oth.	

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, each undersigned inventor (hereinafter referred to as "ASSIGNOR"), do hereby:

SELL, ASSIGN AND TRANSFER to <u>BOE TECHNOLOGY GROUP CO., LTD.</u>, having a place of business at <u>No.10</u>, Jiuxianqiao Road, Chaoyang District, Beijing 100015, P. R. China (each hereinafter referred to as "ASSIGNEE"), the entire right, title and interest for the United States and all foreign countries in and to any and all inventions which are disclosed in the above-identified application for United States Letters Patent, which has been executed by the undersigned concurrently herewith, which claims priority to <u>PCT/CN2016/099181</u> filed on <u>September 18, 2016</u>; which in turn claims priority to <u>CN 201610267107.1</u> filed on <u>April 26, 2016</u>; such applications and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States and all foreign countries on any of such inventions; all original and reissued patents which have been or shall be issued in the United States and all foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such inventions to the Assignee;

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COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such inventions; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to the Assignee all facts known to the undersigned relating to such inventions and the history thereof; and generally do everything possible which the Assignee shall consider desirable for vesting title to such inventions in the Assignee, and for securing, maintaining and enforcing proper patent protection for such inventions;

TO BE BINDING on the heirs; assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignee.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the agents and attorneys of <u>CALFEE</u>, <u>HALTER & GRISWOLD LLP</u> the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

The assignment of said invention is effective as of the earlier of (1) the date of execution shown below or (2) the filing date of the first filed of said patent applications.

STATEMENTS

I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent Office all information known to me to be material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part.

LEGAL NAME	OF INVENTOR	
Inventor:	Xue DONG	Date: May. 8, 2017
Signature:	Xue DONG	

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PATENT REEL: 043039 FRAME: 0994

RECORDED: 07/19/2017