

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5357697

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
HAO ZHU	11/05/2018
XIN DUAN	11/05/2018
XIBIN SHAO	11/05/2018
MING CHEN	11/05/2018
JIEQIONG WANG	11/05/2018
YIFANG CHU	11/05/2018
CHENGQI ZHOU	11/05/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	BEIJING BOE DISPLAY TECHNOLOGY CO., LTD.
<b>Street Address:</b>	NO. 118 JINGHAIYILU, BDA
<b>City:</b>	BEIJING
<b>State/Country:</b>	CHINA
<b>Postal Code:</b>	100176
<b>Name:</b>	BOE TECHNOLOGY GROUP CO., LTD.
<b>Street Address:</b>	NO. 10 JIUXIANQIAO RD.
<b>Internal Address:</b>	CHAOYANG DISTRICT
<b>City:</b>	BEIJING
<b>State/Country:</b>	CHINA
<b>Postal Code:</b>	100015
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16321879
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(216)241-0816
<i>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.</i>	
<b>Phone:</b>	216-622-8674
<b>Email:</b>	ipdocket@calfee.com, kbuzinski@calfee.com
<b>Correspondent Name:</b>	KENNETH J. SMITH
<b>Address Line 1:</b>	CALFEE, HALTER & GRISWOLD LLP
<b>PATENT</b>	

<b>Address Line 2:</b>	THE CALFEE BUILDING, 1405 EAST SIXTH ST.
<b>Address Line 4:</b>	CLEVELAND, OHIO 44114

<b>ATTORNEY DOCKET NUMBER:</b>	31411/04680
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<b>NAME OF SUBMITTER:</b>	KENNETH J. SMITH
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<b>SIGNATURE:</b>	/ken smith/
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<b>DATE SIGNED:</b>	02/04/2019
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**Total Attachments: 14**

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

<b>Title of Invention</b>	REFRESH RATE ADJUSTMENT METHOD AND CIRCUIT, DISPLAY DEVICE, STORAGE MEDIUM
<p>As a below named inventor, I hereby declare that:</p> <p>This declaration is directed to:      <input checked="" type="checkbox"/> The attached application, or</p> <p style="padding-left: 150px;"><input type="checkbox"/> United States application or PCT international application number _____ filed on _____</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>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>	

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 BEIJING BOE DISPLAY TECHNOLOGY CO., LTD., having a place of business at No.118 Jinghaiyilu, BDA, Beijing, 100176, P.R. China and BOE TECHNOLOGY GROUP CO., LTD., having a place of business at No.10 Jiuxianqiao Rd., 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 PCT/CN2018/089737 filed on June 4, 2018; which in turn claims priority to CN 201710432843.2 filed on June 9, 2017; 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 countries on such inventions; and specifically including the right to file 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;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

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.

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CALFEE, HALTER & GRISWOLD LLP

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LEGAL NAME OF INVENTOR	
Inventor: <u>Hao Zhu</u>	Date: <u>Nov. 5, 2018</u>
Signature: <u>Hao ZHU</u>	

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Docket No. X1703693B4-FPPH17130338US

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LEGAL NAME OF INVENTOR	
Inventor: <u>Xin DUAN</u>	Date: <u>Nov. 5, 2018</u>
Signature: <u>Xin DUAN</u>	

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LEGAL NAME OF INVENTOR	
Inventor: <u>Xibin SHAO</u>	Date: <u>Nov. 5, 2018</u>
Signature: <u>Xibin SHAO</u>	



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LEGAL NAME OF INVENTOR	
Inventor: <u>Ming CHEN</u>	Date: <u>Nov. 5, 2018</u>
Signature <u>Ming CHEN</u>	

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LEGAL NAME OF INVENTOR	
Inventor <u>Jieqiong WANG</u>	Date <u>Nov 5, 2018</u>
Signature <u>Jieqiong WANG</u>	

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

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

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.

CALFEE, HALTER & GRISWOLD LLP

ASSIGNOR HEREBY GRANTS to the agents and attorneys of \_\_\_\_\_ 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: Yifang CHU	Date: Nov. 5, 2018
Signature: Yifang CHU	

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

<b>Title of Invention</b>	REFRESH RATE ADJUSTMENT METHOD AND CIRCUIT, DISPLAY DEVICE, STORAGE MEDIUM
<p>As a below named inventor, I hereby declare that:</p> <p>This declaration is directed to:      <input checked="" type="checkbox"/> The attached application, or</p> <p style="padding-left: 150px;"><input type="checkbox"/> United States application or PCT international application number _____ filed on _____.</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>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>	

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LEGAL NAME OF INVENTOR	
Inventor <u>Chengqi ZHOU</u>	Date <u>Nov. 5, 2018</u>
Signature <u>Chengqi ZHOU</u>	