PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6053634

| NATURE OF CONVEYANCE: Corrective Assignment to correct the FIRST INVENTOR'S EXECUTION DATE previously recorded on Reel 043600 Frame 0185. Assignor(s) hereby confirms the FIRST INVENTOR'S EXECUTION DATE SHOULD BE 03/24/2020. | SUBMISSION TYPE: | CORRECTIVE ASSIGNMENT |
|--|------------------|--|
| | | DATE previously recorded on Reel 043600 Frame 0185. Assignor(s) hereby confirms the FIRST INVENTOR'S EXECUTION DATE SHOULD |

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------|----------------|
| HAO CHEN | 03/24/2020 |
| BINGCHUAN SHI | 09/04/2017 |

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15705451 |

CORRESPONDENCE DATA

Fax Number: (612)334-3312

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: 6123343222

Email: bdahlager@wck.com JUDSON K CHAMPLIN **Correspondent Name:**

121 SOUTH EIGHTH STREET Address Line 1:

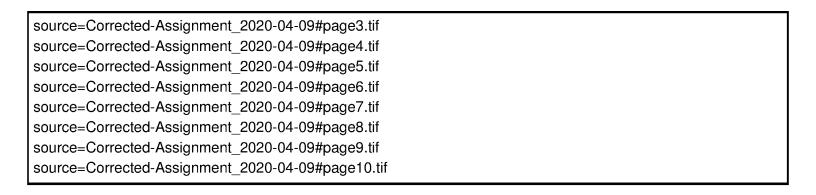
Address Line 2: **SUITE 1100**

Address Line 4: MINNEAPOLIS, MINNESOTA 55402

| ATTORNEY DOCKET NUMBER: | B200.0510US1 |
|-------------------------|----------------------|
| NAME OF SUBMITTER: | JUDSON K. CHAMPLIN |
| SIGNATURE: | /Judson K. Champlin/ |
| DATE SIGNED: | 04/09/2020 |

Total Attachments: 10

source=Corrected-Assignment 2020-04-09#page1.tif source=Corrected-Assignment 2020-04-09#page2.tif



Title of Invention BACKLIGHT MODULE, SPATIAL LIGHT MODULATOR, HOLOGRAPHIC DISPLAY DEVICE AND HOLOGRAPHIC DISPLAY METHOD THEREFOR

As a below named inventor, I hereby declare that:

This declaration

is directed to:

The attached application, or

United States application or PCT international application number 15/705.451 filed on 2017-09-15

The above-identified application was made or authorized to be made by me.

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.

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.</u> Ltd., having a place of business at <u>No.10 Jiuxianqiao Rd.</u> Chaoyang District, Beijing, 100015, P.R. China (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>CN 201710067345.2</u> filed on <u>February 6, 2017</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 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

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Docket No. PX1600120HZCN-US: F1170372US

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.

ASSIGNOR HEREBY GRANTS to the agents and attorneys of <u>Westman</u>, <u>Champlin & Koehler</u>, <u>P.A.</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

| LEGAL NAM | E OF INVENTOR | | |
|------------|---------------|------|---------------|
| Inventor: | Hao CHEN | Date | Mar. 24. 2000 |
| Signature: | Hao CHEN | | |

| Title of Invention | BACKLIGHT MODULE, SPATIAL LIGHT MODULATOR, HOLOGRAPHIC DISPLAY DEVICE AND HOLOGRAPHIC DISPLAY METHOD THEREFOR |
|-----------------------------|---|
| As a below n | amed inventor, I hereby declare that: |
| This declarat | XThe attached application or |
| The above-id | entified application was made or authorized to be made by me. |
| I believe that application. | I am the original inventor or an original joint inventor of a claimed invention in the |
| | nowledge that any willful false statement made in this declaration is punishable .C. 1001 by fine or imprisonment of not more than five (5) years, or both. |

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 BOE TECHNOLOGY GROUP CO.LTD, having a place of business at No.10 Jiuxianqiao Rd., Chaoyang District, Beijing 100015. China, (hereafter 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 201710067345.2 filed on 2017-02-06; which in turn claims priority to filed on ;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;

1

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.

ASSIGNOR HEREBY GRANTS to the agents and attorneys of <u>Westman</u>. Champlin & Koehler, P.A. 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.

| Inventor: Bingchuan SHI Date: SEP.04, 2-017 | LEGAL NAME OF INVENTOR | |
|---|--------------------------|-------------------|
| | Inventor: Bingchuan SHI | Date SED.04, 2017 |
| Signature (Sing Chaps Still | Signature. Binachuma SHI | * 2 |



UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

SEPTEMBER 18, 2017

PTAS

WESTMAN CHAMPLIN & KOEHLER, P.A. SUITE 1400 900 SECOND AVENUE SOUTH MINNEAPOLIS, MN 55402

504549312

UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT RECORDATION BRANCH OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE ASSIGNMENT RECORDATION BRANCH AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT RECORDATION BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 09/15/2017 REEL/FRAME: 043600/0185

NUMBER OF PAGES: 6

BRIEF: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

DOCKET NUMBER: B200.0510US1

ASSIGNOR:

CHEN, HAO DOC DATE: 09/13/2017 03/24/2020

ASSIGNOR:

SHI, BINGCHUAN DOC DATE: 09/04/2017

ASSIGNEE:

BOE TECHNOLOGY GROUP CO., LTD.
NO. 10 JIUXIANQIAO ROAD
CHAOYANG DISTRICT
BEIJING, CHINA 100015

APPLICATION NUMBER: 15705451 FILING DATE: PATENT NUMBER: ISSUE DATE:

TITLE: BACKLIGHT MODULE, SPATIAL LIGHT MODULATOR, HOLOGRAPHIC DISPLAY

DEVICE AND HOLOGRAPHIC DISPLAY METHOD THEREFOR

ASSIGNMENT RECORDATION BRANCH PUBLIC RECORDS DIVISION

504549312 09/15/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

SUBMISSION TYPE:NEW ASSIGNMENTNATURE OF CONVEYANCE:ASSIGNMENT

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------|----------------|
| HAO CHEN | 09/13/2017 |
| BINGCHUAN SHI | 09/04/2017 |

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 |
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| Application Number: | 15705451 |

CORRESPONDENCE DATA

Fax Number: (612)334-3312

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: 612-334-3222
Email: lswaja@wck.com

Correspondent Name: WESTMAN CHAMPLIN & KOEHLER, P.A.

Address Line 1: SUITE 1400

Address Line 2: 900 SECOND AVENUE SOUTH
Address Line 4: MINNEAPOLIS, MINNESOTA 55402

ATTORNEY DOCKET NUMBER: B200.0510US1

NAME OF SUBMITTER: JUDSON K. CHAMPLIN

SIGNATURE: /Judson K. Champlin/

DATE SIGNED: 09/15/2017

Total Attachments: 4

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> PATENT REEL: 052354 FRAME: 0198

EPAS ID: PAT4596020

| Title of Invention | BACKLIGHT MODULE, SPATIAL LIGHT MODULATOR, HOLOGRAPHIC DISPLAY DEVICE AND HOLOGRAPHIC DISPLAY METHOD THEREFOR |
|---------------------------------|---|
| As a below n | amed inventor, I hereby declare that: |
| This declarat is directed to | XIThe attached application or |
| The above-id | entified application was made or authorized to be made by me. |
| I believe that application. | I am the original inventor or an original joint inventor of a claimed invention in the |
| | nowledge that any willful false statement made in this declaration is punishable .C. 1001 by fine or imprisonment of not more than five (5) years, or both. |

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 BOE TECHNOLOGY GROUP CO.LTD, having a place of business at No.10 Jiuxianqiao Rd., Chaoyang District, Beijing 100015. China, (hereafter 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 201710067345.2 filed on 2017-02-06; which in turn claims priority to filed on 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;

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| 3 | |
|---------|---|
| | LEGAL NAME OF INVENTOR |
| | Inventor: Hao CHEN Date Supplied 13, 2017 |
| | Signature: As2 /Asn |
| receive | |

| Title of Invention | BACKLIGHT MODULE, SPATIAL LIGHT MODULATOR, HOLOGRAPHIC DISPLAY DEVICE AND HOLOGRAPHIC DISPLAY METHOD THEREFOR |
|-----------------------------|---|
| As a below n | amed inventor, I hereby declare that: |
| This declarat | XIThe attached application or |
| The above-id | entified application was made or authorized to be made by me. |
| I believe that application. | I am the original inventor or an original joint inventor of a claimed invention in the |
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1

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| LEGAL NAME OF INVENTOR | |
|----------------------------------|--------------------|
| Inventor: Bingchuan SHI | Date: SEP.04, 2017 |
| Signature: <i>Bing chyan SHI</i> | * |

2