# 506037945 04/29/2020

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6084660

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

## **CONVEYING PARTY DATA**

Name	Execution Date
YINGLONG HUANG	02/19/2020
BINGWEI YANG	02/19/2020
WENBAO GAO	02/26/2020

# **RECEIVING PARTY DATA**

Name:	MIANYANG BOE OPTOELECTRONICS TECHNOLOGY CO., LTD.
Street Address:	NO.198, MIDDLE OF KEFA AVENUE, HI-TECH ZONE
City:	MIANYANG, SICHUAN
State/Country:	CHINA
Postal Code:	621050
Name:	BOE TECHNOLOGY GROUP CO., LTD.
Street Address:	NO.10 JIUXIANQIAO RD., CHAOYANG DISTRICT
City:	BEIJING
State/Country:	CHINA
Postal Code:	100015

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16759939

#### **CORRESPONDENCE DATA**

**Fax Number:** (703)621-7155

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:** 7036217140

**Email:** mailroom@mg-ip.com, dak@mg-ip.com **Correspondent Name:** MUNCY, GEISSLER, OLDS & LOWE, P.C.

Address Line 1: 4000 LEGATO ROAD

Address Line 2: SUITE 310

Address Line 4: FAIRFAX, VIRGINIA 22033

**ATTORNEY DOCKET NUMBER:** 0190/0191PUS1

NAME OF SUBMITTER: JOE MCKINNEY MUNCY

SIGNATURE:	/Joe McKinney Muncy/
DATE SIGNED:	04/28/2020
Total Attachments: 6	
source=2020-04-29-Assignments#page1	1.tif
source=2020-04-29-Assignments#page2	2.tif
source=2020-04-29-Assignments#page3	3.tif
source=2020-04-29-Assignments#page4	4.tif
source=2020-04-29-Assignments#page5	5.tif
source=2020-04-29-Assignments#page6	5.tif

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

Title of Invention	PIXEL CIRCUIT, PIXEL DRIVING METHOD AND DISPLAY DEVICE
As a below	named inventor, I hereby declare that:
This declar	The attached application or
The above-i	United States application or PCT international application numberfiled on  dentified application was made or authorized to be made by me.
l believe tha in the applic	it I am the original inventor or an original joint inventor of a claimed invention ation.
	cnowledge 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:

SELL, ASSIGN AND TRANSFER to MIANYANG BOE OPTOELECTRONICS TECHNOLOGY CO., LTD. , having a place of business at No.198, Middle of Kefa Avenue, Hi-tech Zone, Mianyang, Sichuan, 621050, P.R. China, and TECHNOLOGY GROUP CO., LTD., having a place of business at Jiuxiangiao 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 aboveidentified application for United States Letters Patent, which has been executed by the undersigned concurrently herewith, which claims priority to PCT/CN2019/111022 filed on Oct.14,2019; which in turn claims priority to CN201811479299.8 filed on Dec.05,2018; 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.

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 Muncy, Geissler, Olds & Lowe, PLLC 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: Yinglong HUANG	_ Date:	Feb. 19.2020
Signature: Ying Lang HUANG		

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

***************************************	
Title of Invention	PIXEL CIRCUIT, PIXEL DRIVING METHOD AND DISPLAY DEVICE
As a below	named inventor, I hereby declare that:
This decla	ration
is directed	to: The attached application, or
SCOOLS CONTRACTOR CONT	United States application or PCT international application number
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) 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:

SELL, ASSIGN AND TRANSFER to MIANYANG BOE OPTOELECTRONICS TECHNOLOGY CO., LTD. , having a place of business at No.198, Middle of Kefa Avenue, Hi-tech Zone, Mianyang, Sichuan, 621050, P.R. China, and TECHNOLOGY GROUP CO., LTD. , having a place of business at Jiuxiangiao 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 aboveidentified application for United States Letters Patent, which has been executed by the undersigned concurrently herewith, which claims priority to PCT/CN2019/111022 filed on Oct.14,2019; which in turn claims priority to CN201811479299.8 filed on Dec.05,2018; 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.

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>Muncy, Geissler, Olds & Lowe, PLLC</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: Bingwei YANG Date: Tel. 19 , >0>0
CHARGOLDAGA	Signature: Bing klg YANh

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

Title of Invention	PIXEL CIRCUIT, PIXEL DRIVING METHOD AND DISPLAY DEVICE
As a below	named inventor, I hereby declare that:
This decla	ration
is directed	to: The attached application, or
	United States application or PCT international application numberfiled on
The above-i	dentified application was made or authorized to be made by me.
l believe tha in the applic	t I am the original inventor or an original joint inventor of a claimed invention ation.
	nowledge 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:

SELL, ASSIGN AND TRANSFER to MIANYANG BOE OPTOELECTRONICS TECHNOLOGY CO., LTD., having a place of business at No.198, Middle of Kefa Avenue, Hi-tech Zone, Mianyang, Sichuan, 621050, 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 aboveidentified application for United States Letters Patent, which has been executed by the undersigned concurrently herewith, which claims priority to PCT/CN2019/111022 filed on Oct.14,2019; which in turn claims priority to CN201811479299.8 filed on Dec.05,2018; 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:

Attorney Docket No.: 0190/0191PUS

#### Docket No. X1800142B11-PIUS2020112CN

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>Muncy, Geissler, Olds & Lowe, PLLC</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
LEGAL NAME OF INVENTOR
LEGAL NAME OF INVENTOR
LEGAL NAME OF INVERSOR
Language Contract Con
intentitic vicingal (All)
O() 1 20 3 1 1 0 40 842
Signature: Wendan to the

9