

<b>PATENT ASSIGNMENT COVER SHEET</b>
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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
BOE TECHNOLOGY GROUP CO., LTD.	11/01/2022
<b>RECEIVING PARTY DATA</b>	
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<b>Postal Code:</b>	100176
<b>PROPERTY NUMBERS Total: 4</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15780410
Application Number:	16477588
Application Number:	16831183
Application Number:	16954937
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<b>SIGNATURE:</b>	/W Garland Phillips/
<b>DATE SIGNED:</b>	11/03/2022
<b>Total Attachments: 7</b>	
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## ASSIGNMENT

**THIS ASSIGNMENT** is made and entered into by and between **BOE Technology Group Co., Ltd.** , ( "Assignors" ) having an address of No.10 Jiuxianqiao Rd., Chaoyang District, Beijing, 100015, P.R. China, and **Beijing BOE Technology Development Co., Ltd.** ( "Assignee" ) having an address of Room 407, Building 1, No.9 Dize Road, BDA, Beijing, 100176, P.R. China.

**WHEREAS**, Assignor wishes to confirm assignment to Assignee and assign to Assignee if such assignment has not already been effected, and Assignee wishes to acquire from Assignor, the entire right, and title in and to all Intellectual Property set forth herein that is owned by the Assignor in the event the Assignee has not already acquired these rights.

**NOW, THEREFORE**, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor hereby transfers and assigns to Assignee its entire right and title in and to the patents and patent applications listed on Schedule A hereto and hereby confirm its transfer and assign in the event it has not already been made;

AND Assignor hereby authorizes and requests the Commissioner of Patents and Trademarks, the Register of Copyrights of the United States, and any other applicable governmental authority or registrar (including in any applicable foreign country), to record Assignee as assignee and owner of the Trademarks, Patents and/or Copyrights.

*[Signature page follows]*

**IN WITNESS WHEREOF**, Assignor and Assignee have caused this Assignment to be executed by their duly authorized representatives.

**BOE TECHNOLOGY GROUP CO., LTD.**

By: Xinguo LI

Name: Xinguo LI

Title: Head of Technology & IP anagement Center / Vice President

Date: NOV. 1st, 2022

**ACCEPTED BY: Beijing BOE Technology Development Co., Ltd.**

By: Xinguo LI

Name: Xinguo LI

Title: General Manager

Date: NOV. 1st, 2022

## SCHEDULE A

No	US Application Number	Filed Date	Title
1	16/633,214	2019-06-13	QUOTATION METHOD EXECUTED BY COMPUTER, QUOTATION DEVICE, ELECTRONIC DEVICE AND STORAGE MEDIUM
2	16/096,428	2018-02-01	INTERPUPILLARY DISTANCE MEASURING METHOD, WEARABLE OPHTHALMIC DEVICE AND STORAGE MEDIUM
3	16/507,462	2019-07-10	IMPRINT TEMPLATE AND IMPRINT METHOD
4	16/834,609	2020-03-30	DATA TRANSMISSION METHOD, METHOD OF DISPLAYING THREE-DIMENSIONAL IMAGE, DATA TRANSMISSION DEVICE AND THREE-DIMENSIONAL IMAGE DISPLAY DEVICE
5	15/922,016	2018-03-15	PIEZOELECTRIC SENSOR, PRESSURE DETECTING DEVICE, MANUFACTURING METHODS AND DETECTION METHOD
6	16/344,013	2018-04-02	ARRAY SUBSTRATE, DISPLAY APPARATUS, METHOD OF REDUCING CURRENT-RESISTANCE DROP AND DATA LOSS IN DISPLAY APPARATUS, AND METHOD OF FABRICATING ARRAY SUBSTRATE
7	16/332,743	2018-08-29	TOUCH SUBSTRATE, METHOD FOR MANUFACTURING THE SAME, AND TOUCH DISPLAY DEVICE
8	15/780,410	2017-10-23	TOUCH PANEL AND MANUFACTURING METHOD THEREOF, DISPLAY DEVICE
9	16/756,609	2019-09-19	OPTICAL LENS MODULE AND VIRTUAL REALITY DEVICE
10	16/477,588	2018-11-19	TOUCH STRUCTURE, METHOD FOR MANUFACTURING SAME, TOUCH DEVICE, AND METHOD FOR DETERMINING TOUCH POSITION
11	16/815,180	2020-03-11	FOLDABLE SUPPORT, FABRICATING METHOD THEREOF AND DISPLAY DEVICE
12	16/634,621	2018-12-04	DISPLAY PANEL, DISPLAY DEVICE AND DISPLAY METHOD
13	16/120,642	2018-09-04	Temperature detection circuit, temperature sensor device and display device
14	16/831,183	2020-03-26	ADDRESS LATCH, DISPLAY DEVICE AND ADDRESS LATCHING METHOD
15	16/330,919	2018-08-31	PIXEL ARRANGEMENT STRUCTURE, HIGH-PRECISION METAL MASK, AND DISPLAY APPARATUS
16	16/917,531	2020-06-30	MOTION DEVICE FOR VIRTUAL REALITY INTERACTION AND VIRTUAL REALITY SYSTEM
17	16/925,370	2020-07-10	AUTOMATIC WAKE-UP CIRCUIT FOR WEARABLE DEVICE, WEARABLE DEVICE
18	16/770,095	2018-12-10	METHOD AND SYSTEM FOR TESTING WEARABLE DEVICE
19	16/333,112	2018-08-17	DISPLAY SUBSTRATE, MANUFACTURING METHOD THEREOF, AND DISPLAY DEVICE
20	16/649,199	2019-04-01	DISPLAY DEVICE, DISPLAY METHOD THEREOF, AND DISPLAY SYSTEM

21	16/610,254	2019-04-24	LIP- LANGUAGE IDENTIFICATION METHOD AND APPARATUS, AND AUGMENTED REALITY DEVICE AND STORAGE MEDIUM
22	16/757,908	2019-05-24	ORGANIC LIGHT EMITTING DIODE (OLED) SUBSTRATE AND MANUFACTURING METHOD THEREOF, DISPLAY DEVICE
23	17/191,737	2021-03-04	Display Panel and Display Apparatus
24	16/337,039	2018-10-08	ACQUISITION EQUIPMENT, SOUND ACQUISITION METHOD, AND SOUND SOURCE TRACKING SYSTEM AND METHOD
25	16/475,110	2019-01-07	VEHICLE INFORMATION DIRECTIONAL TRANSMISSION METHODS AND DEVICES
26	17/053,056	2019-10-18	DISPLAY PANEL
27	17/054,823	2020-04-16	ARRAY SUBSTRATE, AND PRODUCTION METHOD THEREOF, DISPLAY PANEL, AND DISPLAY APPARATUS
28	16/474,397	2018-11-20	WEARABLE DEVICE, ELECTRONIC SYSTEM AND DEVICE, TACTILE FEEDBACK METHOD AND STORAGE MEDIUM
29	16/339,614	2018-11-13	DISPLAY SUBSTRATE, MANUFACTURING METHOD THEREOF, DISPLAY DEVICE
30	17/351,312	2021-06-18	LIGHT-EMITTING DEVICE, DISPLAY APPARATUS AND MANUFACTURING METHOD
31	16/303,469	2018-04-19	TENSIONING DEVICE, BASE, CLAMP AND METHOD FOR CLAMPING MASK PLATE
32	17/081,834	2020-10-27	DRIVING BACKPLANE AND METHOD FOR MANUFACTURING THE SAME, AND DISPLAY PANEL
33	16/945,243	2020-07-31	SWITCHING METHOD AND SWITCHING DEVICE FOR DISPLAY CHANNEL, DISPLAY DRIVING DEVICE AND DISPLAY DEVICE
34	16/535,848	2019-08-08	ITEM MONITORING METHOD, TERMINAL, AND SYSTEM
35	16/645,721	2019-03-01	SHIFT REGISTER AND DRIVE METHOD THEREOF, AND GATE DRIVE CIRCUIT
36	16/623,627	2019-03-26	METHOD PERFORMED IN INTERNET OF VEHICLES DATA TRANSMISSION SYSTEM, ON-BOARD UNIT AND INTERNET OF VEHICLES DATA TRANSMISSION SYSTEM
37	16/133,413	2018-09-17	DEVICE AND METHOD FOR MUFFLING, COMMUNICATION DEVICE AND WEARABLE DEVICE
38	16/765,674	2019-04-18	TRAFFIC INFORMATION PROCESSING EQUIPMENT, SYSTEM AND METHOD
39	16/970,147	2019-12-26	NETWORK CONFERENCE MANAGEMENT METHOD AND APPARATUS AND STORAGE MEDIUM, AND NETWORK CONFERENCE PLATFORM AND SYSTEM
40	16/647,808	2019-03-25	CONTROL METHOD AND CONTROL DEVICE FOR VEHICLE DISPLAY DEVICE
41	17/041,413	2018-12-11	ACCESS METHOD, INTERNET OF THINGS PLATFORM, APPLICATION DEVICE, SERVICE DEVICE
42	16/303,585	2018-03-22	RECOVERY DEVICE AND METHOD FOR RECOVERING MAGNETIC PARTICLE

43	16/329,389	2018-09-03	Camera Module and Display Device
44	17/412,148	2021-08-25	SHIFT REGISTER UNIT, METHOD FOR DRIVING SAME, GATE DRIVE CIRCUIT AND DISPLAY DEVICE
45	17/259,245	2020-03-30	ACOUSTIC TRANSDUCER AND DRIVING METHOD THEREOF
46	16/998,087	2020-08-20	FLEXIBLE COVER PLATE, DISPLAY MODULE AND DISPLAY DEVICE
47	17/258,153	2020-03-31	TOUCH DEVICE, TOUCH SYSTEM AND CONTROL METHOD THEREOF
48	17/211,978	2021-03-25	LIGHT-ADJUSTING GLASS, MANUFACTURING METHOD THEREOF AND GLASS ASSEMBLY
49	16/643,219	2019-03-19	DISPLAY DEVICE
50	16/493,467	2019-03-26	FLEXIBLE DISPLAY PANEL, MANUFACTURING METHOD THEREOF AND DISPLAY DEVICE
51	16/962,493	2019-09-26	OPTICAL ASSEMBLY, LIQUID CRYSTAL DISPLAY DEVICE, AND ELECTRONIC EQUIPMENT
52	16/989,389	2020-08-10	METAL MASK, DISPLAY PANEL AND DISPLAY DEVICE
53	16/759,386	2019-03-29	VEHICLE ANTIGLARE SYSTEM AND METHOD AND VEHICLE COMPRISING ANTIGLARE SYSTEM
54	16/652,580	2019-04-16	MULTI-LAYER FILM, DISPLAY PANEL AND MANUFACTURING METHOD THEREOF, AND DISPLAY APPARATUS
55	17/414,236	2020-09-24	TIMING CONTROLLER FOR ADJUSTING REFRESH RATES BASED ON IMAGE SIGNALS AND METHOD FOR DRIVING DISPLAY DEVICE
56	17/427,607	2021-01-22	SHIFT REGISTER, GATE DRIVING CIRCUIT, DISPLAY DEVICE AND GATE DRIVING METHOD
57	17/280,822	2020-06-24	DISPLAY MODULE AND DISPLAY DEVICE
58	17/265,552	2020-05-19	REFLECTIVE-TYPE DISPLAY SCREEN AND CONTROL METHOD THEREOF, AND DISPLAY DEVICE
59	17/032,546	2020-09-25	LIGAND AND METHOD OF MANUFACTURING THE SAME, QUANTUM DOT FILM AND METHOD OF MANUFACTURING THE SAME, AND DISPLAY APPARATUS
60	16/760,475	2019-10-29	LIGHT-EMITTING UNIT AND METHOD FOR MANUFACTURING THE SAME
61	17/281,789	2020-05-12	POSITIONING CONTROL METHOD AND DEVICE, POSITIONING SYSTEM AND STORAGE MEDIUM
62	17/212,432	2021-03-25	ARRAY BASE PLATE AND FABRICATING METHOD THEREOF, DISPLAY PANEL AND DISPLAYING DEVICE
63	17/218,305	2021-03-31	LIQUID CRYSTAL LENS, LIQUID CRYSTAL DEVICE AND METHOD FOR DRIVING LIQUID CRYSTAL LENS
64	17/497,630	2019-07-25	METHOD OF DRIVING PIXEL ARRANGEMENT STRUCTURE HAVING PLURALITY OF SUBPIXELS, DRIVING CHIP FOR DRIVING PIXEL ARRANGEMENT STRUCTURE HAVING PLURALITY OF SUBPIXELS, DISPLAY APPARATUS, AND COMPUTER-PROGRAM PRODUCT
65	17/363,041	2021-06-30	DISPLAY APPARATUS AND ELECTRONIC DEVICE

66	16/638,941	2019-03-08	SMART WINDOW, SMART WINDOW SYSTEM, METHOD OF OPERATING SMART WINDOW, AND METHOD OF FABRICATING SMART WINDOW
67	16/649,801	2019-03-19	TRANSFER PRINTING METHOD AND TRANSFER PRINTING APPARATUS
68	16/669,647	2019-10-31	DATA CORRECTION METHOD AND APPARATUS, ELECTRONIC DEVICE AND COMPUTER-READABLE STORAGE MEDIUM
69	16/758,026	2019-10-31	HEART SOUND MONITORING DEVICE AND METHOD FOR ACQUIRING HEART SOUND SIGNAL
70	17/324,259	2021-05-19	TOUCH DETECTION METHOD, TOUCH DETECTION DEVICE, AND TOUCH DISPLAY DEVICE
71	17/433,825	2020-12-07	DISPLAY ASSEMBLY, DISPLAY APPARATUS, AND DISPLAY METHOD AND TRANSMISSION METHOD OF DATA SIGNAL
72	17/478,031	2021-09-17	BACKLIGHT MODULE AND DISPLAY DEVICE
73	16/910,092	2020-06-24	Display Substrate and Preparation Method Thereof, and Display Apparatus
74	17/324,128	2021-05-19	Display Control System, Display Apparatus and Control Method
75	17/468,584	2021-09-07	LIQUID CRYSTAL DISPLAY DEVICE
76	17/485,155	2021-09-24	BACKLIGHT SOURCE AND DISPLAY DEVICE
77	16/577,601	2019-09-20	DISPLAY SUBSTRATE AND MANUFACTURING METHOD THEREOF, DISPLAY PANEL
78	16/629,790	2019-03-11	INTERSECTION BLIND-GUIDING SYSTEM, BLIND-GUIDING METHOD AND BLIND-GUIDING TERMINAL
79	16/763,786	2019-10-31	ARRAY SUBSTRATE AND FABRICATING METHOD THEREOF, AND DISPLAY APPARATUS
80	17/277,679	2020-07-13	TRANSPARENT DISPLAY MODULE AND DISPLAY DEVICE
81	17/489,605	2021-09-29	SENSING SUB-CIRCUIT, CIRCUIT, RECOGNITION METHOD, SENSOR, PANEL AND DEVICE
82	16/753,955	2019-05-28	DISPLAY PANEL AND METHOD FOR MANUFACTURING DISPLAY PANEL
83	16/639,039	2019-07-12	DISPLAY BACK PANEL, MANUFACTURING METHODS THEREOF, AND DISPLAY DEVICE
84	16/767,050	2019-12-13	INORGANIC LIGHT-EMITTING DIODE CHIP, METHOD FOR PREPARING THE SAME, AND DISPLAY SUBSTRATE
85	17/330,510	2021-05-26	DISPLAY PANEL, LIGHT REGULATION DEVICE AND LIGHT REGULATION METHOD THEREOF
86	16/954,937	2019-12-24	OPTICAL SYSTEM AND NEAR-EYE DISPLAY DEVICE
87	16/957,243	2019-12-20	ANTI-PEEP FILM AND MANUFACTURING METHOD THEREOF, AND DISPLAY MODULE
88	17/531,274	2021-11-19	PIXEL DRIVING CIRCUIT, PIXEL DRIVING METHOD, DISPLAY PANEL AND DISPLAY DEVICE
89	17/333,226	2021-05-28	DISPLAY SUBSTRATE AND DISPLAY PANEL



90	17/551,398	2021-12-15	DISPLAY DEVICE AND CONTROL METHOD THEREOF
91	16/959,409	2019-11-29	MASK AND MANUFACTURING METHOD THEREOF, FINE METAL MASK, MASK DEVICE AND USE METHOD THEREOF
92	17/427,620	2021-01-07	INTERACTIVE DEVICE, SENSING SCREEN, INTERACTIVE SYSTEM, AND POSITIONING METHOD
93	17/480,065	2021-09-20	BACKLIGHT MODULE AND DISPLAY DEVICE
94	16/908,878	2020-06-23	ARRAY SUBSTRATE AND MANUFACTURING METHOD THEREOF, AND DISPLAY PANEL
95	16/766,560	2018-11-20	TARGET RESOURCE OPERATION METHOD, NODE DEVICE, TERMINAL DEVICE AND COMPUTER-READABLE STORAGE MEDIUM
96	17/476,798	2021-09-16	PIXEL DRIVING STRUCTURE AND DISPLAY PANEL