## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7560702

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
BOE TECHNOLOGY GROUP CO., LTD.	05/25/2020

#### **RECEIVING PARTY DATA**

Name: BEIJING BOE TECHNOLOGY DEVELOPMENT CO., LTD.		
Street Address: ROOM 407, BUILDING 1, NO.9 DIZE ROAD, BDA		
City: BEIJING		
State/Country: CHINA		
Postal Code:	100176	

#### **PROPERTY NUMBERS Total: 3**

Property Type	Number
Application Number:	16760847
Application Number:	16769565
Application Number:	17035388

#### **CORRESPONDENCE DATA**

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using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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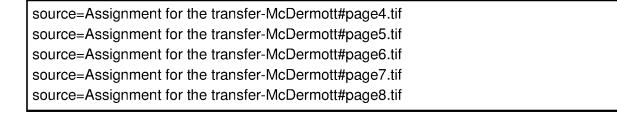
Address Line 4: WASHINGTON, D.C. 20001

ATTORNEY DOCKET NUMBER:	077197-0144, 0145 & 0177
NAME OF SUBMITTER:	LYNN CRUZ
SIGNATURE:	/LYNN CRUZ/
DATE SIGNED:	09/27/2022

#### **Total Attachments: 8**

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PATENT 507513810 REEL: 061227 FRAME: 0341



PATENT REEL: 061227 FRAME: 0342 **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 <u>Schedule A</u> 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]

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PATENT REEL: 061227 FRAME: 0343 **IN WITNESS WHEREOF,** Assignor and Assignee have caused this Assignment to be executed by their duly authorized representatives.

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

Ву:	Xingro LZ:
Name:	Xinguo LI
Title: _	Head of Technology & IP anagement Center / Vice President
Date:	Sep. 20, 2022

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

Ву:	Lingues LI.
Name:	Xinguo Ll
Title:	General Manager
Date:	5ep. 20, 2022

# SCHEDULE A

	US		
	Application		
No	Number	Filed Date	Title
110	Number	riieu Date	· · · · · · · · · · · · · · · · · · ·
4	15 (005 507	3040 03 43	ARRAY SUBSTRATE, MANUFACTURING METHOD THEREOF, DISPLAY
1	16/096,587	2018-03-12	PANEL
ni.	16/220 076	2019 07 26	TOUCH SUBSTRATE, MANUFACTURING METHOD THEREOF, AND DIS PLAY DEVICE
3	16/339,076		
	15/780,323	*******	LIGHT FIELD DISPLAY DEVICE
4	16/491,409	2019-04-03	DISPLAY PANEL AND PREPARATION METHOD THEREOF
_	45/555 440	2040 40 20	ARRAY SUBSTRATE, METHOD FOR FABRICATING THE SAME DISPLAY
5	16/665,410	2019-10-28	PANEL, AND DISPLAY DEVICE
c	3.0 (072 022	2017 44 20	DISPLAY SUBSTRATE, METHOD FOR DRIVING THE SAME AND DISPLA
6	16/072,822	2017-11-29	DISPLAY SUBSTRATE HAVING WAVELENGTH-
			ACTUATABLE COLOR FILTER, DISPLAY APPARATUS HAVING THE SAM
7	16/073,048	2019 01 00	E, AND METHOD OF OPERATING DISPLAY APPARATUS
8		-	
_	16/338,799	2019-03-00	BACKLIGHT MODULE AND DISPLAY DEVICE
9	16/333,997	2018-10-31	DISPLAY BACKPLANE AND MANUFACTURING METHOD THEREOF, AN D DISPLAY PANEL
	10/353,357	2010-10-51	TOUCH CONTROL DEVICE, TOUCH CONTROL DISPLAY SUBSTRATE AN
10	16/397,498	2010-04-20	D DISPLAY APPARATUS
	10/337,430	2013-04-23	ORGANIC LIGHT EMITTING DIODE AND MANUFACTURING METHOD
11	16/466,737	2018-11-01	· · · · · · · · · · · · · · · · · · ·
12	16/638,609	2018-10-31	DISPLAY PANEL AND CUTTING METHOD THEREFOR, DISPLAY DEVICE
<del></del>	10,030,003	2010 10 31	DETECTION TARGET POSITIONING DEVICE, DETECTION TARGET POSI
13	16/182,950	2018-11-07	TIONING METHOD, AND SIGHT TRACKING DEVICE
	20, 202,200		PIXEL CIRCUIT AND METHOD FOR DRIVING PIXEL CIRCUIT, DISPLAY P
14	16/337,042	2018-09-14	i e e e e e e e e e e e e e e e e e e e
15	16/509,323		Orthopedics Restoration Fixation Device
	20,200,020	2020 07 22	ACOUSTIC WAVE SIGNAL READING CIRCUITS, CONTROL METHODS,
16	16/605,204	2019-05-13	AND ACOUSTIC WAVE SIGNAL READING APPARATUSES
<del></del>		2020 00 80	DEVICE AND METHOD OF OBJECTIVE IDENTIFICATION AND DRIVING
17	16/066,799	2017-10-24	1
			PIXEL CIRCUIT, DISPLAY PANEL, AND TEMPERATURE COMPENSATIO
18	16/605,414	2019-04-18	N METHOD FOR DISPLAY PANEL
			Data Processing Method, Medical Term Processing System and Medi
19	15/953,234	2018-04-13	cal Diagnostic System
	,, \		METHOD FOR MANUFACTURING ARRAY SUBSTRATE, INTERMEDIAT
20	16/316,615	2018-05-10	E ARRAY SUBSTRATE PRODUCT, AND ARRAY SUBSTRATE
			OLED DISPLAY PANEL AND MANUFACTURING METHOD THEREOF, O
21	16/322,826	2018-06-06	LED DISPLAY DEVICE

	T		PACIFICATION METHOD, APPARATUS, AND SYSTEM BASED ON EMO
			TION RECOGNITION, COMPUTER DEVICE AND COMPUTER READABL
22	16/472,012	2018-12-05	E STORAGE MEDIUM
	10/4/2,012	2018-12-05	
22	16/405 763	2019-01-15	IMAGE INFORMATION GENERATION METHOD, PULSE WAVE MEASU
23	16/485,763		REMENT SYSTEM AND ELECTRONIC DEVICE
24	16/618,869	2019-03-25	ARRAY SUBSTRATE AND DISPLAY APPARATUS
	45/510 540	2242 24 22	DISPLAY PANEL, DISPLAY DEVICE, AND METHOD FOR MANUFACTURI
25	16/643,619	2019-01-22	NG DISPLAY PANEL
	4.0.0750.000	2040 42 25	EYEGLASS AND METHOD FOR ADJUSTING INCIDENT LIGHT INTO EYE
26	16/768,388	2019-12-25	DONE DEDATE STATEDIAL AND DEEDADATION A SETTIOD THEREOF. AND
	45/520 402	2010 00 21	BONE REPAIR MATERIAL AND PREPARATION METHOD THEREOF, AN
27	16/639,193	2019-06-21	D BIOLOGICAL COMPOSITE SCAFFOLD
20	25 (72 4 4 45	2010 12 12	SPEED SENSOR, DEVICE FOR MEASURING SPEED AND METHOD THE
28	16/714,445	2019-12-13	REOF
29	16/059 403	2017 12 15	TRANSFER DEVICE, TRANSFER METHOD AND VACUUM EVAPORATION DEVICE
29	16/068,493	2017-12-15	PROTECTIVE FILM FOR DISPLAY, PRODUCTION METHOD THEREOF, A
30	16/200 453	2019-04-22	ND STRETCHABLE DISPLAY APPARATUS
30	16/390,452	2019-04-22	SIGNAL RECEIVING METHOD AND APPARATUS, AND COMPUTER-
31	16/606,957	2019-03-22	READABLE STORAGE MEDIUM AND ELECTRONIC DEVICE
- 31	10/000,937	2019-03-22	LIGHT-
			EMITTING DIODE CHIP, METHOD FOR FABRICATING THE SAME, BAC
32	16/335,572	2018-10-17	KLIGHT MODULE, AND DISPLAY DEVICE
33	16/599,947	2019-10-11	DISPLAY DEVICE AND METHOD FOR CONTROLLING THE SAME
33	10/333,341	2013-10-11	DOUBLE-
	İ		SIDED DISPLAY PANEL AND MANUFACTURE METHOD THEREOF, AND
34	16/490,194	2019-03-21	DOUBLE-SIDED DISPLAY DEVICE
35	16/496,646		ADJUSTABLE POLARIZATION CONVERTER AND ELECTRONIC DEVICE
33	10/430,040	2019-02-23	LIGHT EMITTING DIODE AND FABRICATING METHOD THEREOF, DISP
36	16/484,631	2018-09-19	LAY SUBSTRATE, AND DISPLAY APPARATUS
30	10/404,031	2010-03-13	ELECTROCHEMICAL DETECTION ELECTRODE AND MANUFACTURING
37	16/621,351	2019-06-19	METHOD THEREOF, ELECTROCHEMICAL DETECTION APPARATUS
<del></del>	20,021,001	2013-00-13	PHOTONIC CRYSTAL, DISPLAY PANEL, LIGHT CONVERSION DEVICE A
38	16/605,974	2019-04-18	ND GLASSES
	20,000,014	2013 04 10	FINGERPRINT RECOGNITION MODULE, DRIVING METHOD THEREOF,
39	16/642,804	2019-09-12	MANUFACTURING METHOD THEREOF AND DISPLAY DEVICE
40	16/536,541	2019-08-09	BEZEL MEMBER, CONTROL METHOD THEREOF AND BEZEL DEVICE
1	10/330,341	2013-00-03	DISPLAY SUBSTRATE AND METHOD OF MANUFACTURING THE SAME
41	16/880,592	2020-05-21	AND DISPLAY PANEL
	10/000,332	~0~U-UJ~Z1	NAMED ENTITY RECOGNITION METHOD, NAMED ENTITY RECOGNITI
42	16/652,233	2019-08-28	ON DEVICE, EQUIPMENT AND MEDIUM
1	10,032,233	2013-00-20	on better, equi ment disp medicia
			FLEXIBLE DISPLAY PANEL, FLEXIBLE DISPLAY DEVICE AND
43	17/043,205	2020-03-17	DEFORMATION DETECTION METHOD THEREOF

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	1		DIGITAL MICROFLUIDIC CHIP, METHOD FOR DRIVING THE SAME, AN
69	16/641,756	2019-06-27	D DIGITAL MICROFLUIDIC CHIP, METHOD FOR DRIVING THE SAME, AN
70	17/256,186	2019-10-14	ARRAY SUBSTRATE AND DISPLAY DEVICE
70	17/230,180	2013-10-14	DISPLAYING BASE PLATE AND FABRICATING METHOD THEREOF, AN
71	17/191,045	2021-03-03	D DISPLAY PANEL
1:4	17/131,043	2021:05:05	DISPLAY MODULE, DISPLAY DEVICE AND METHOD OF FORMING DIS
72	17/212,058	2021-03-25	PLAY MODULE
- 12	17/212,036	2021-03-23	VISIBLE LIGHT COMMUNICATION APPARATUS AND FABRICATING M
73	16/769,687	2019-12-23	A production of the Control of the C
74	17/054,902	2020-04-20	
74	17/034,302	2020-04-20	SHIFT REGISTER CIRCUIT AND METHOD OF DRIVING THE SAME, GAT
75	17/261,652	2020-04-07	E DRIVER CIRCUIT, AND DISPLAY APPARATUS
13	17/201,032	2020-04-07	DRIVING CIRCUIT AND DRIVING METHOD THEREOF, DISPLAY PANEL,
76	17/333,114	2021-05-28	AND DISPLAY DEVICE
77	16/944,000	2020-07-30	
	10/344,000	2020-07-50	DISPLAY SUBSTRATE, DISPLAY APPARATUS AND MANUFACTURING
78	16/607,932	2019-04-30	S
	10,007,332	2023 64 30	ARRAY SUBSTRATE AND MANUFACTURING METHOD THEREOF, DISP
79	16/619,249	2019-05-22	- <del> </del>
	120,020,2.72	2020 00 22	PIXEL DRIVE CIRCUIT, PIXEL UNIT, DRIVING METHOD, ARRAY SUBSTR
80	17/424,408	2020-09-10	ATE, AND DISPLAY APPARATUS
			DISPLAY PANEL, DISPLAY DEVICE AND METHOD FOR DRIVING THE S
81	17/330,489	2021-05-26	· ·
			DISPLAY APPARATUS AND METHOD FOR MANUFACTURING THE
82	17/205,050	2021-03-18	SAME
			POSITIVE PHOTORESIST COMPOSITION, VIA-
83	16/300,474	2018-04-25	FORMING METHOD, DISPLAY SUBSTRATE AND DISPLAY DEVICE
			METHOD FOR EVALUATING DEVICE ENVIRONMENTAL NOISE, APPAR
84	16/768,532	2019-12-13	ATUS, MEDIUM AND ELECTRONIC DEVICE
	]		SIGNAL TRANSMISSION METHOD, SIGNAL TRANSMISSION APPARAT
85	16/651,740	2019-03-26	US AND DISPLAY DEVICE
			ARRAY SUBSTRATE, DISPLAY APPARATUS, AND METHOD OF FABRIC
86	16/771,038	2019-06-25	v
			DUAL-
			DIE DEVICE, DISPLAY DEVICE AND DRIVING METHOD OF DISPLAY DE
87	16/762,270	2019-12-04	
88	17/358,052	2021-06-25	n. (
			DISPLAY SUBSTRATE AND PREPARATION METHOD THEREOF, AND DI
89	16/767,663	2019-07-12	SPLAY DEVICE
90	17/251,867	2020-05-14	LIGHT ADJUSTING GLASS
			LIGHT EMITTING DEVICE AND METHOD FOR MANUFACTURING THE
91	16/825,922	2020-03-20	SAME, AND DISPLAY DEVICE
			THREE-
92	15/772 002	2019-08-26	DIMENSIONAL DISPLAY APPARATUS AND VIRTUAL REALITY DEVICE
32	16/772,902	Z013*00*Z0	PRINTENSIONME PISE PAT ALEMANTOS MINE ALLI OME VENETI I DE AICE

	1		OUTPUT CONTROL CIRCUIT, METHOD FOR TRANSMITTING DATA AN
93	17/095,606	2020-11-11	D ELECTRONIC DEVICE
	27,7000,000	2020 41 41	DRIVING SUBSTRATE, METHOD FOR PREPARING THE SAME, AND DIS
94	17/265,806	2020-05-13	PLAY DEVICE
-			TOUCH PANEL AND TOUCH DISPLAY DEVICE WITH SENSING ELECTR
95	17/419,585	2020-09-03	ODES FORMED BY A PLURALITY OF CONDUCTIVE LINES
96	16/650,654	2019-02-22	BATTERY AND MANUFACTURING METHOD THEREOF
97	17/036,792	2020-09-29	AR DISPLAY DEVICE AND METHOD
			ARRAY SUBSTRATE, MANUFACTURING METHOD THEREOF, AND DIS
98	16/619,227	2019-03-29	PLAY DEVICE
			DISPLAY DEVICE, METHOD FOR CONTROLLING THE SAME, AND DISP
99	16/811,411	2020-03-06	LAY PANEL
			ELECTRONIC SUBSTRATE, MANUFACTURING METHOD THEREOF, AN
100	16/907,743	2020-06-22	D DISPLAY PANEL
101	17/255,516	2020-04-17	A STATE OF THE PARTY OF THE PAR
à nà	46/000 000		DISPLAY SUBSTRATE, METHOD OF FORMING THE SAME AND DISPLA
102	16/982,370	2020-04-21	Y DEVICE
103	16/766,583	2019-05-24	METHOD AND APPARATUS FOR CONTROLLING VIRTUAL REALITY DIS
102	10//00,383	2019-03-24	PIXEL STRUCTURE, METHOD OF DRIVING THE SAME AND DISPLAY D
104	16/957,659	2019-12-26	EVICE
	20,000,000	2020 22 20	DISPLAY METHOD, DISPLAY CONTROL METHOD, DISPLAY TERMINAL,
105	17/280,103	2020-04-30	SERVER AND DISPLAY SYSTEM
106	17/218,256	2021-03-31	FINGERPRINT IDENTIFICATION SUBSTRATE AND DISPLAY DEVICE
107	17/334,413	2021-05-28	DISPLAY PANEL AND DISPLAY DEVICE
			METHOD FOR SENDING DRIVING DATA OF BACKLIGHT SOURCE, CON
108	17/194,435	2020-01-08	TROL CIRCUIT AND DISPLAY DEVICE
	or and a		DISPLAY PANEL AND METHOD OF MANUFACTURING THE SAME, AN
109	16/640,486	2019-07-24	
110	17/417,318	2020-09-18	PIXEL CIRCUIT, DRIVING METHOD AND DISPLAY DEVICE
			LED ASSEMBLY, LIGHT SOURCE AND LIQUID CRYSTAL DISPLAY DEVIC
111	17/441,958	2021-02-18	
112	17/462,608	2021-08-31	TOUCH STRUCTURE AND DISPLAY APPARATUS
444	47/244 540	2040 05 04	IMAGE DISPLAY PROCESSING METHOD AND DEVICE, DISPLAY DEVIC
113	1//241,618	2019-05-01	E AND NON-VOLATILE STORAGE MEDIUM
441	16/077 220	2010 11.20	PIXEL DRIVING CIRCUIT, METHOD OF DRIVING THE SAME AND DISPL
114	16/977,220	2019-11-29	AY DEVICE
115	17/187,205	2021-02-26	CURVED-SURFACE VEHICLE-MOUNTED DISPLAY MODULE, VEHICLE-MOUNTED DISPLAY DEVICE, AND VEHICLE
444	11/101/203	2021-02-20	TOUCH DISPLAY DEVICE, TOUCH RESPONSE METHOD AND SYSTEM
116	17/280,320	2020-05-28	HEREOF, AND STORAGE MEDIUM
			ARRAY SUBSTRATE, DISPLAY DEVICE AND METHOD FOR REPAIRING
117	16/640,186	2019-04-23	WIRE BREAK OF ARRAY SUBSTRATE
			TACTILE REPRODUCTION DEVICE, METHOD FOR DRIVING SAME, AN
118	17/485,227	2021-09-24	D TACTILE REPRODUCTION APPARATUS
	****		

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			FLAT PANEL DETECTION SUBSTRATE, FABRICATING METHOD THERE
119	16/976,148	2019-12-16	OF AND FLAT PANEL DETECTOR
			DISPLAY MODULE, MANUFACTURING METHOD THEREOF AND TOUC
120	16/963,976	2020-02-12	H DISPLAY DEVICE
			IMAGE PROCESSING METHOD, IMAGE PROCESSING CIRCUIT AND DI
121	17/428,178	2021-01-20	SPLAY APPARATUS
			FOLDABLE DISPLAY SCREEN AND ASSEMBLING METHOD THEREOF, A
122	16/959,362	2019-08-19	ND DISPLAY APPARATUS
			IMAGE ACQUISITION METHOD AND DEVICE, ELECTRONIC DEVICE AN
123	17/035,388	2020-09-28	D STORAGE MEDIUM
124	17/258,892	2020-03-27	DISPLAY PANEL AND DRIVING METHOD THEREOF
125	17/280,283	2020-05-15	PIXEL DRIVING CIRCUIT, DISPLAY PANEL AND ELECTRONIC DEVICE
			ULTRASONIC FINGERPRINT RECOGNITION SENSOR AND MANUFACT
126	17/263,241	2020-05-26	URING METHOD THEREOF, AND DISPLAY DEVICE
			BLACK MATRIX STRUCTURE, METHOD FOR MANUFACTURING SAME,
127	17/228,811	2021-04-13	DISPLAY SUBSTRATE, AND DISPLAY DEVICE
128	17/355,776	2021-06-23	TOUCH PANEL, TOUCH RECOGNITION METHOD AND TOUCH DEVICE
		e.	DISPLAY SUBSTRATE AND FABRICATION METHOD THEREOF, INK-
129	16/335,097	2018-09-17	JET PRINTING METHOD AND DISPLAY DEVICE
130	16/532,928	2019-08-06	OPTICAL FILM, DISPLAY SCREEN ASSEMBLY AND DISPLAY DEVICE
			AN ELECTRODE DRIVE CIRCUIT OF A MICROFLUIDIC APPARATUS, A
131	16/630,854	2019-04-30	MICROFLUIDIC APPARATUS AND A DRIVE METHOD
132	16/945,651	2020-07-31	DISPLAY PANEL AND DISPLAY APPARATUS
			ARRAY SUBSTRATE AND MANUFACTURING METHOD THEREOF, AND
133	16/761,823	2019-03-26	DISPLAY DEVICE AND MANUFACTURING METHOD THEREOF
134	16/765,152	2019-10-31	OPTICAL SUBSTRATE AND DISPLAY DEVICE
135	16/763,966	2019-12-23	STRETCH DISPLAY DEVICE AND PREPARATION METHOD
			SOURCE DRIVER, DRIVING SYSTEM, LIQUID CRYSTAL DISPLAY DEVICE
136	16/990,768	2020-08-11	AND CORRECTION METHOD THEREFOR
			LIGHT GUIDE SUBSTRATE AND METHOD OF MANUFACTURING THE S
			AME, OPPOSITE SUBSTRATE AND LIQUID CRYSTAL DISPLAY APPARAT
137	17/044,268	2019-09-03	us
138	17/333,089	2021-05-28	DISPLAYING BASE PLATE AND DISPLAYING DEVICE
			DISPLAYING BASE PLATE AND FABRICATING METHOD THEREOF, AN
139	17/347,970	2021-06-15	D DISPLAYING DEVICE
140	17/417,440	2020-11-26	PIXEL CIRCUIT AND TESTING METHOD
			DISPLAY SUBSTRATE AND METHOD FOR FORMING DISPLAY SUBSTR
141	17/435,364	2021-01-12	ATE, AND DISPLAY DEVICE

**RECORDED: 09/27/2022**