505939209 02/27/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5985928

SUBMISSION TYPE:	NEW ASSIGNMENT			
NATURE OF CONVEYANCE:	ASSIGNMENT			
CONVEYING PARTY DATA				
	Name	Execution Date		
MING YANG		02/10/2020		
MINGHUA XUAN		02/10/2020		
CAN ZHANG		02/10/2020		
CAN WANG		02/10/2020		
HAN YUE		02/10/2020		
NING CONG		02/10/2020		
JIAYAO LIU		02/10/2020		
WENQING ZHAO		02/10/2020		
LI XIAO		02/10/2020		
DONGNI LIU		02/10/2020		
LEI WANG		02/10/2020		
LIANG CHEN		02/10/2020		
XIAOCHUAN CHEN		02/10/2020		
SHENGJI YANG		02/10/2020		
PENGCHENG LU		02/10/2020		

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16642584

CORRESPONDENCE DATA

Fax Number:

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.

	854-1400			
	sfreedman@myersbigel.com			
· ·	MYERS BIGEL, P.A.			
	3OX 37428			
Address Line 4: RAL	EIGH, NORTH CAROLINA 27627			
ATTORNEY DOCKET NUMBER:	1493-207			
NAME OF SUBMITTER:	SUSAN E. FREEDMAN			
SIGNATURE:	/Susan E. Freedman/			
DATE SIGNED:	02/27/2020			
Total Attachments: 30	•			
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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

Title of Invention	ARRAY SUBSTRATE, DISPLAY PANEL, AND DISPLAY DEVICE
As a below	/ named Inventor, I hereby declare that:
This decla is directed The above-	V The attached opplication or
l belleve than the applic	at I am the original inventor or an original joint inventor of a claimed invention sation.
l hereby a	cknowledge that any willful false statement made in this declaration is

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 BOE Technology Group Co., Ltd. ,having a place of business at _____ No.10 Juxiangiao Rd., 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 PCT/CN2019/076250 filed on Feb.27,2019 ; which in turn claims priority to CN201810443168.8 filed on May 10,2018 ; 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.

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MYERS BIGEL, P.A.

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STATEMENTS

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LA MARTINE CALLEND WITH A MARTINE MARTINE AND	****			,
LEGAL NAME OF INVENTOR				
•		T-L		A
Inventor: Ming YANG	Dale:	-eh. 10	,2020	
MAR MANT				
Signature: NUM9 YANG			-	

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is directed	to: The attached application, or
	^T United States application or PCT International application numberfiled on
The above-	identified application was made or authorized to be made by me.
I believe tha in the applic	at I am the original inventor or an original joint inventor of a claimed invention ation.
I hereby a punishable years, or bo	cknowledge 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.

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PATENT REEL: 052045 FRAME: 0094

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LEGAL NAME OF INVENTOR				 	
Inventor: <u>Minghua XUAN</u>		Date:	Feb. 10, 2020		• • •
signature: Mulghua	XUAN	Married States of Concerns			

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LEGAL NAME OF INVENTOR			
Inventor: Can ZHANG	Date:	Feb. 10 12020	 i provinci de provinci. La companya de la comp
signature: Can ZHANG			

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1

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LEGAL NAME OF INVENTOR			
Inventor: Can WANG	Date:	Feb. 10, 2020	• • •
Signature: Can WANG			

2

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	ARRAY SUBSTRATE, DISPLAY PANEL, AND DISPLAY DEVICE				
As a below	/ named inventor, I hereby declare that:				
This decla is directed	17 The attached confication or				
The above-i	United States application or PCT international application numberflied onflied onflied application was made or authorized to be made by me.				
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MYERS BIGEL, P.A.

PATENT REEL: 052045 FRAME: 0100

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LEGAL NAME OF INVENTOR	
· · · · · · · · · · · · · · · · · · ·	Patro 10,2020
Inventor: Han YUE	
II. Klm	
Signature: Han 11/E	

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PATENT REEL: 052045 FRAME: 0102

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LEGAL NAME OF INVENTOR	
Inventor: Ning CONG Date: Fob. 10, 2020	, ,
signature: Wing CONG	

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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;

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Date:

LEGAL NAME OF INVENTOR

Feb.	10,	2020

en fall i serie e serie e

PATENT REEL: 052045 FRAME: 0104

Signature: Jiavas LIU

Inventor: Jiavao LIU

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	ARRAY SUBSTRATE, DISPLAY PANEL, AND DISPLAY DEVICE
As a below	v named inventor, I hereby declare that:
This decla is directed The above-i	E. The attached application or
believe than the applic	at I am the original inventor or an original joint inventor of a claimed invention cation.
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LEGAL NAME OF INVENTOR			
Inventor: Wenging ZHAO	Date:	Feb.10, 2020	· · · · · · · · · · · · · · · · · · ·
signatura: Wenging ZHAO			5

2

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	ARRAY SUBSTRATE, DISPLAY PANEL, AND DISPLAY DEVICE
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				****	1946-903.44
EGAL NAME OF INVENTOR					
nventor: Li XIAO	Date:	Feb. 10	, 2020		 • •
Signature: Li XIAO					

2

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

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As a below	v named inventor, I hereby declare that:
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	at I am the original inventor or an original joint inventor of a claimed inventior
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MYERS BIGEL, P.A.

PATENT REEL: 052045 FRAME: 0110

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LEGAL NAME OF INVENTOR		
Inventor; Dongni LIU	Date: Feb. 10, 2020 1	. "
Signature: Dorgni LIV		

COMBINED DECLARATION (37 CFR 1,63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT

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LEGAL NAME OF INVENTOR			
Inventor: Lei WANG	Date:	Feb. 10, 2020	Alesson in the second
Signature: Le' WANG	1111111-11111111111111111		

2

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	ARRAY SUBSTRATE, DISPLAY PANEL, AND DISPLAY DEVICE
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1.1.1

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LEGAL NAME OF INVENTOR		-	
Inventor: Liang CHEN	Date:	Feb. 10, 2020	·····
Signature: Ling CHEN			

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	ARRAY SUBSTRATE, DISPLAY PANEL, AND DISPLAY DEVICE
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LEGAL NAME OF INVENTOR					
Inventor: Xiaochuan CHEN	Date:	Feb. 10,	2020	n tyde can mae ar	W. N.
Signature: XLAD CHUAH CHEN					

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<u>COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY OR</u> <u>DESIGN APPLICATION USING AN APPLICATION DATA SHEET</u> (37 CFR 1.76) AND ASSIGNMENT

Title of Invention	ARRAY SUBSTRATE, DISPLAY PANEL, AND DISPLAY DEVICE
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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.

MYERS BIGEL, P.A.

PATENT REEL: 052045 FRAME: 0118

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: Shengli YANG	Date:	Feb. 10, 20,10	an a
signature: Sheng ji YANG		90-11-12 (11-1 -14-1 (11-14-1-1-14-1-1-1-1-1-1-1-1-1-1-1-1-1-	

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	ARRAY SUBSTRATE, DISPLAY PANEL, AND DISPLAY DEVICE
As a below	named inventor, I hereby declare that:
This decla	ration
is directed	to; IF 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.
believe than the applic	at I am the original inventor or an original joint inventor of a claimed invention action.
•	cknowledge 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 BOE Technology Group Co., Ltd. ,having a place of business at _____ No.10 Jiuxiangiao Rd., 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 PCT/CN2019/076250 filed on Feb.27,2019; which in turn claims priority to CN201810443168.8 filed on May 10, 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 Assignce;

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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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MYERS BIGEL, P.A.

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.

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LEGAL NAME OF INVENTOR	
Inventor: Pengcheng LU Date: Feb. 10, 2020	sa wite le
stanatura: Penachera LU	

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PATENT REEL: 052045 FRAME: 0120

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RECORDED: 02/27/2020