505064188 08/27/2018

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5110943

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
XUEYOU CAO	07/18/2018
HAISHENG WANG	07/18/2018
XIAOLIANG DING	07/18/2018
YANLING HAN	07/18/2018
CHIH JEN CHENG	07/18/2018
WEI LIU	07/18/2018
PENGPENG WANG	07/18/2018
PING ZHANG	07/18/2018

### **RECEIVING PARTY DATA**

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:	16080077

### **CORRESPONDENCE DATA**

**Fax Number:** (314)621-2307

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:** 314-621-5070

Email: USpatents@armstrongteasdale.com
Correspondent Name: ARMSTRONG TEASDALE LLP
Address Line 1: 7700 FORSYTH BOULEVARD

Address Line 2: SUITE 1800

Address Line 4: ST. LOUIS, MISSOURI 63105

ATTORNEY DOCKET NUMBER:	X1607600JZ (35732-00156)
NAME OF SUBMITTER:	DANIEL M. FITZGERALD
SIGNATURE:	/Daniel M. Fitzgerald/

**DATE SIGNED:** 08/27/2018

### **Total Attachments: 16**

source=PF170775USP-CombinedDeclarationandAssignmentbyInventors-29932459#page1.tif source=PF170775USP-CombinedDeclarationandAssignmentbyInventors-29932459#page2.tif source=PF170775USP-CombinedDeclarationandAssignmentbyInventors-29932459#page3.tif source=PF170775USP-CombinedDeclarationandAssignmentbyInventors-29932459#page4.tif source=PF170775USP-CombinedDeclarationandAssignmentbyInventors-29932459#page5.tif source=PF170775USP-CombinedDeclarationandAssignmentbyInventors-29932459#page6.tif source=PF170775USP-CombinedDeclarationandAssignmentbyInventors-29932459#page7.tif source=PF170775USP-CombinedDeclarationandAssignmentbyInventors-29932459#page8.tif source=PF170775USP-CombinedDeclarationandAssignmentbyInventors-29932459#page9.tif source=PF170775USP-CombinedDeclarationandAssignmentbyInventors-29932459#page10.tif source=PF170775USP-CombinedDeclarationandAssignmentbyInventors-29932459#page11.tif source=PF170775USP-CombinedDeclarationandAssignmentbyInventors-29932459#page12.tif source=PF170775USP-CombinedDeclarationandAssignmentbyInventors-29932459#page13.tif source=PF170775USP-CombinedDeclarationandAssignmentbyInventors-29932459#page14.tif source=PF170775USP-CombinedDeclarationandAssignmentbyInventors-29932459#page15.tif source=PF170775USP-CombinedDeclarationandAssignmentbyInventors-29932459#page16.tif

Title of Invention	TOUCH PANEL AND DRIVING METHOD THEREOF, AND TOUCH DEVICE	
As a below named inventor, I hereby declare that:		
This decla	The attached application or	
The above-identified application was made or authorized to be made by me.		
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.		
	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, the undersigned inventor (hereinafter referred to as "ASSIGNOR"), does hereby:

SELL, ASSIGN AND TRANSFER to <u>BOE TECHNOLOGY GROUP CO., LTD.</u>, having a place of business at <u>No. 10 Jiuxianqiao Rd.</u>, Chaoyang District, Beijing 100015, <u>P.R. China</u> (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>PCT/CN2018/075247</u> filed on <u>February 5, 2018</u>; which in turn claims priority to <u>CN 201710535984.7</u> filed on <u>July 4, 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 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;

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 **ARMSTRONG TEASDALE LLP** 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.

LEGAL NAME OF INVENTOR	
Inventor(First, LAST): Xueyou CAO	Date: July, 18, 20 18
Signature: Yulyw (Ao	

Title of Invention	TOUCH PANEL AND DRIVING METHOD THEREOF, AND TOUCH DEVICE	
As a below	named inventor, I hereby declare that:	
This decla	The attached application or	
	United States application or PCT international application numberfiled on	
The above-identified application was made or authorized to be made by me.		
I 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, the undersigned inventor (hereinafter referred to as "ASSIGNOR"), does hereby:

SELL, ASSIGN AND TRANSFER to <u>BOE TECHNOLOGY GROUP CO., LTD.</u>, having a place of business at <u>No. 10 Jiuxianqiao Rd.</u>, Chaoyang District, Beijing 100015, <u>P.R. China</u> (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>PCT/CN2018/075247</u> filed on <u>February 5, 2018</u>; which in turn claims priority to <u>CN 201710535984.7</u> filed on <u>July 4, 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 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;

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 **ARMSTRONG TEASDALE LLP** 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.

LEGAL NAME OF INVENTOR	
Inventor(First, LAST): <u>Haisheng WANG</u>	Date: July 18.2018
Signature: <u>Vai Shag</u> WUNG	

Title of Invention	TOUCH PANEL AND DRIVING METHOD THEREOF, AND TOUCH DEVICE	
As a below	named inventor, I hereby declare that:	
This decla	The attached application or	
	United States application or PCT international application numberfiled on	
The above-identified application was made or authorized to be made by me.		
I 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, the undersigned inventor (hereinafter referred to as "ASSIGNOR"), does hereby:

SELL, ASSIGN AND TRANSFER to <u>BOE TECHNOLOGY GROUP CO., LTD.</u>, having a place of business at <u>No. 10 Jiuxianqiao Rd.</u>, Chaoyang District, Beijing 100015, <u>P.R. China</u> (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>PCT/CN2018/075247</u> filed on <u>February 5, 2018</u>; which in turn claims priority to <u>CN 201710535984.7</u> filed on <u>July 4, 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 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;

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 **ARMSTRONG TEASDALE LLP** 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(First, LAST): Xiaoliang DING	Date: 14.18.1918
Signature: Xia - Liang D1/UG	

6

Title of Invention	TOUCH I DEVICE	PANEL AND DRIVING METHOD THEREOF, AND TOUCH		
As a below	As a below named inventor, I hereby declare that:			
This decla		The attached application, or		
		United States application or PCT international application number		
The above-identified application was made or authorized to be made by me.				
I 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, the undersigned inventor (hereinafter referred to as "ASSIGNOR"), does hereby:

SELL, ASSIGN AND TRANSFER to <u>BOE TECHNOLOGY GROUP CO., LTD.</u>, having a place of business at <u>No. 10 Jiuxianqiao Rd.</u>, Chaoyang District, Beijing 100015, <u>P.R. China</u> (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>PCT/CN2018/075247</u> filed on <u>February 5, 2018</u>; which in turn claims priority to <u>CN 201710535984.7</u> filed on <u>July 4, 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 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;

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 **ARMSTRONG TEASDALE LLP** 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(First, LAST): Yanling HAN	Date: July 18.7018
Signature: You ing 1101/	Data. V- J., V- I

8

Title of Invention	TOUCH PANEL AND DRIVING METHOD THEREOF, AND TOUCH DEVICE
As a below	named inventor, I hereby declare that:
This decla	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.
I believe tha 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, the undersigned inventor (hereinafter referred to as "ASSIGNOR"), does hereby:

SELL, ASSIGN AND TRANSFER to <u>BOE TECHNOLOGY GROUP CO., LTD.</u>, having a place of business at <u>No. 10 Jiuxianqiao Rd.</u>, Chaoyang District, Beijing 100015, <u>P.R. China</u> (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>PCT/CN2018/075247</u> filed on <u>February 5, 2018</u>; which in turn claims priority to <u>CN 201710535984.7</u> filed on <u>July 4, 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 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;

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 **ARMSTRONG TEASDALE LLP** 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.

LEGAL NAME OF INVENTOR	
Inventor(First, LAST): Chih Jen CHENG	Date: July. 18. 2018
Signature: <u>Chih Ten CHENG</u>	

Title of Invention	TOUCH PANEL AND DRIVING METHOD THEREOF, AND TOUCH DEVICE
As a below	named inventor, I hereby declare that:
This declar	The attached application or
	United States application or PCT international application number
The above-i	dentified application was made or authorized to be made by me.
I believe tha in the applic	t I am the original inventor or an original joint inventor of a claimed invention ation.
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, the undersigned inventor (hereinafter referred to as "ASSIGNOR"), does hereby:

SELL, ASSIGN AND TRANSFER to <u>BOE TECHNOLOGY GROUP CO., LTD.</u>, having a place of business at <u>No. 10 Jiuxianqiao Rd.</u>, Chaoyang District, Beijing 100015, <u>P.R. China</u> (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>PCT/CN2018/075247</u> filed on <u>February 5, 2018</u>; which in turn claims priority to <u>CN 201710535984.7</u> filed on <u>July 4, 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 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;

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 **ARMSTRONG TEASDALE LLP** 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.

LEGAL NAME OF INVENTOR		
Inventor(First, LAST): Wei LIU	Date:	July 18. 7018
Signature: We; L10		

Title of Invention	TOUCH PANEL AND DRIVING METHOD THEREOF, AND TOUCH DEVICE
As a below	named inventor, I hereby declare that:
This decla	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.
I believe tha 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, the undersigned inventor (hereinafter referred to as "ASSIGNOR"), does hereby:

SELL, ASSIGN AND TRANSFER to <u>BOE TECHNOLOGY GROUP CO., LTD.</u>, having a place of business at <u>No. 10 Jiuxianqiao Rd.</u>, Chaoyang District, Beijing 100015, <u>P.R. China</u> (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>PCT/CN2018/075247</u> filed on <u>February 5, 2018</u>; which in turn claims priority to <u>CN 201710535984.7</u> filed on <u>July 4, 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 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;

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 **ARMSTRONG TEASDALE LLP** 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(First, LAST): Pengpeng WANG	Date: July 18 7218
Signature: Penggong WANG	

14

Title of Invention	TOUCH PANEL AND DRIVING METHOD THEREOF, AND TOUCH DEVICE
As a below	named inventor, I hereby declare that:
This decla	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.
I believe tha 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, the undersigned inventor (hereinafter referred to as "ASSIGNOR"), does hereby:

SELL, ASSIGN AND TRANSFER to <u>BOE TECHNOLOGY GROUP CO., LTD.</u>, having a place of business at <u>No. 10 Jiuxianqiao Rd.</u>, Chaoyang District, Beijing 100015, <u>P.R. China</u> (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>PCT/CN2018/075247</u> filed on <u>February 5, 2018</u>; which in turn claims priority to <u>CN 201710535984.7</u> filed on <u>July 4, 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 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;

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 **ARMSTRONG TEASDALE LLP** 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(First, LAST): Ping ZHANG	Date: July . 18. 2018
Signature: <u>Ping 2 MANG</u>	

PATENT REEL: 046708 FRAME: 0542

**RECORDED: 08/27/2018**