PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT8228226

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YAJIE FENG	06/01/2021
CHENG LI	06/01/2021
YUE GENG	06/01/2021
KUIYUAN WANG	06/01/2021
ZEFEILI	06/01/2021
CHAOYANG QI	06/01/2021
YI DAI	06/01/2021
XIAOGUAN LI	06/01/2021
YINGZI WANG	06/01/2021

RECEIVING PARTY DATA

Name:	BEIJING BOE SENSOR TECHNOLOGY CO., LTD.
Street Address:	BUILDING 2, NO.8, XIHUANZHONG RD, BDA
Internal Address:	ROOM C-301-C-302, FLOOR 3, AREA C
City:	BEIJING
State/Country:	CHINA
Postal Code:	100176
Name:	BOE TECHNOLOGY GROUP CO., LTD.
Street Address:	NO. 10 JIUXIANQIAO ROAD
City:	CHAOYANG DISTRICT, BEIJING
State/Country:	CHINA
Postal Code:	100015

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	18381451

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.

Phone: 4124718815

PATENT REEL: 065271 FRAME: 0268

508181042

Email: assignments@webblaw.com

Correspondent Name: THE WEBB LAW FIRM

Address Line 1: 420 FT. DUQUESNE BLVD.

Address Line 2: ONE GATEWAY CENTER, SUITE 1200
Address Line 4: PITTSBURGH, PENNSYLVANIA 15222

ATTORNEY DOCKET NUMBER: 9440-2307916

NAME OF SUBMITTER: KIRK M. MILES

SIGNATURE: /Kirk M. Miles/

DATE SIGNED: 10/18/2023

Total Attachments: 20

source=Assignment#page1.tif

source=Assignment#page2.tif

source=Assignment#page3.tif

source=Assignment#page4.tif

source=Assignment#page5.tif

source=Assignment#page6.tif

source=Assignment#page7.tif

source=Assignment#page8.tif

source=Assignment#page9.tif

source=Assignment#page10.tif

source=Assignment#page11.tif

- 100 granon in page 11:00

source=Assignment#page12.tif source=Assignment#page13.tif

source=Assignment#page14.tif

source=Assignment#page15.tif

source=Assignment#page16.tif

source=Assignment#page17.tif

source=Assignment#page18.tif

source=Assignment#page19.tif

source=Assignment#page20.tif

PATENT

REEL: 065271 FRAME: 0269

RECORDATION FORM COVER SHEET PATENTS ONLY		
To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.		
1. Name of conveying party(ies) Yajie Feng Cheng Li Yue Geng Kuiyuan Wang Additional name(s) of conveying party(ies) attached? ✓ Yes No 3. Nature of conveyance/Execution Date(s): Execution Date(s) June 1, 2021 ✓ Assignment Merger Security Agreement Change of Name Joint Research Agreement Government Interest Assignment Executive Order 9424, Confirmatory License	2. Name and address of receiving party(ies) Name: BEIJING BOE SENSOR TECHNOLOGY CO., LTD. Internal Address: Room C-301-C-302, Floor 3, Area C Street Address: Building 2, No.8, Xihuanzhong Rd, BDA City: Beijing State: Country: China Zip: 100176	
Other	Additional name(s) & address(es) attached? 🗸 Yes 🗌 No	
A. Patent Application No.(s) 18/381,451 Additional numbers att	B. Patent No.(s) ached? ☐ Yes ✓ No	
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1	
Name: Kirk M. Miles	7. Total fee (37 CFR 1.21(h) & 3.41) \$	
Internal Address: The Webb Law Firm Street Address: One Gateway Center 420 Ft. Duquesne Blvd., Ste 1200	 ☐ Authorized to be charged to deposit account ☐ Enclosed ✓ None required (government interest not affecting title) 	
City: Pittsburgh	8. Payment Information	
State: <u>PA</u>	1916 05/2015	
Phone Number: 412-471-8815	Deposit Account Number 23-0650	
Docket Number: 9440-2307916 Email Address: assignments@webblaw.com	Authorized User Name	
9. Signature: /Kirk M. Miles/	October 18, 2023	
Signature	Date	
Kirk M. Miles	Total number of pages including cover	
Name of Person Signing	sheet, attachments, and documents:	

RECORDATION FORM COVER SHEET PATENTS ONLY

Page 2

U.S. Patent Application No	18/381,451 , filed October 18/2023
U.S. Patent No.	, issued
Additional In	formation (continued from Page 1)
Name of conveying party(ies) Zefei Li Chaoyang Qi Yi Dai Xiaoguan Li Yingzi Wang	Name and address of receiving party(ies) Name: BOE TECHNOLOGY GROUP CO., LTD. Internal Address: Street Address: No. 10 Jiuxianqiao Road City: Chaoyang District, Beijing
Execution Date(s): June 1, 2021	
Name of conveying party(ies)	Name and address of receiving party(ies) Name: Internal Address:
	Street Address:

Title of Invention	OPTICAL SENSOR ARRAY SUBSTRATE AND OPTICAL FINGERPRINT READER	
As a below named inventor, I hereby declare that:		
This decla	☑ The attached application, or	
	at I am the original inventor or an original joint inventor of a claimed invention	
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:

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such inventions to the Assignee;

I

9440-2105266 Docket No. X2000458SeT-IEE200787PUS

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>The Webb Law Firm</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.

LEGAL NAME OF INVENTOR	
Inventor: Yajie FENG	Date: Jun.o/, Yow
Signature: Yajic FEN6	·

Title of Invention	OPTICAL SENSOR ARRAY SUBSTRATE AND OPTICAL FINGERPRINT READER
As a below	named inventor, I hereby declare that:
This decla	☑ The attached application, or
is directed	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 in the applic	at I am the original inventor or an original joint inventor of a claimed invention eation.
l hereby acl punishable years, or bo	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 Beijing BOE Sensor Technology Co., Ltd. , having a place of business at Room C-301, C-302, Floor 3, Area C, Building 2, No.8 Xihuanzhong RD,BDA.Beijing.100176,P.R.China, and 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/CN2020/132895 filed on Nov.30,2020; 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;

I

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>The Webb Law Firm</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.

LEGAL NAME OF INVENTOR			
Inventor: Cheng LI	Date:	Jun. 01, 2021	
Signature: Chory 17			

Title of Invention	OPTICAL SENSOR ARRAY SUBSTRATE AND OPTICAL FINGERPRINT READER
As a below	named inventor, I hereby declare that:
This declar is directed The above-i	☑ The attached application, or
I believe tha in the applic	at I am the original inventor or an original joint inventor of a claimed invention ation.
I hereby ack punishable v years, or bo	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:

Beijing BOE Sensor Technology Co., SELL, ASSIGN AND TRANSFER to _ Ltd. , having a place of business at Room C-301, C-302, Floor 3, Area C, Building 2. No.8 Xihuanzhong RD,BDA,Beijing,100176,P.R.China, and ___, having a place of business at No.10 TECHNOLOGY GROUP CO., LTD. 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/CN2020/132895 filed on Nov.30,2020; 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;

I

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>The Webb Law Firm</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.

LEGAL NAME OF INVENTOR	
Inventor: Yue GENG	Date: Junol, yor
Signature: Yve GBNG	<u>, </u>

Title of Invention	OPTICAL SENSOR ARRAY SUBSTRATE AND OPTICAL FINGERPRINT READER
	v named inventor, I hereby declare that:
This decla is directed The above-	☑ The attached application or
I believe the	at I am the original inventor or an original joint inventor of a claimed invention cation.
I hereby ac punishable years, or bo	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) oth.

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 Beijing BOE Sensor Technology Co., Ltd. , having a place of business at Room C-301, C-302, Floor 3, Area C, Building 2, No.8 Xihuanzhong RD,BDA,Beijing,100176,P.R.China, and 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/CN2020/132895 filed on Nov.30.2020; 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;

1

ACTION OF THE MALL AND AND AND AND ASSESSMENT OF THE ACTION OF THE ACTIO

Docket No. X2000458SeT-IEE200787PUS

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>The Webb Law Firm</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: Kuiyuan WANG	Date: Jun. 0/, vor/
Signature: Kui Ivon WAN 6	

2

Title of Invention	OPTICAL SENSOR ARRAY SUBSTRATE AND OPTICAL FINGERPRINT READER	
As a below	named inventor, I hereby declare that:	
This decla	ration	
is directed	to:	
	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 in the applic	at I am the original inventor or an original joint inventor of a claimed invention cation.	
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 Beijing BOE Sensor Technology Co., Ltd. , having a place of business at Room C-301, C-302, Floor 3, Area C, Building 2, No.8 Xihuanzhong RD.BDA.Beijing.100176.P.R.China, and 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/CN2020/132895 filed on Nov.30.2020; 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;

1

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>The Webb Law Firm</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.

LEGAL NAME OF INVENTOR	
Inventor: Zefei LI	Date: Jun. J Yor
Signature: Zefei L)	

Title of Invention FINGERPRINT READER		
As a below	named inventor, I hereby declare that:	
This decla	ration	
is directed	to: For 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.		
l believe tha in the applic	at I am the original inventor or an original joint inventor of a claimed invention cation.	
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 Beijing BOE Sensor Technology Co., Ltd., having a place of business at Room C-301, C-302, Floor 3, Area C.Building 2. No.8 Xihuanzhong RD.BDA,Beijing,100176,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 above-identified application for United States Letters Patent, which has been executed by the undersigned concurrently herewith, which claims priority to PCT/CN2020/132895 filed on Nov.30,2020; 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;

1

Docket No. X2000458SeT-IEE200787PUS

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>The Webb Law Firm</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.

	· · · · · · · · · · · · · · · · · · ·
LEGAL NAME OF INVENTOR	_
Inventor: Chaoyang QI	Date: Jen. V), NOV/
Signature Chowang QI	

Title of Invention	OPTICAL SENSOR ARRAY SUBSTRATE AND OPTICA FINGERPRINT READER	
	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.	
l believe tha in the applic	at I am the original inventor or an original joint inventor of a claimed invention cation.	
I hereby acl punishable years, or bo	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 Beijing BOE Sensor Technology Co., Ltd. , having a place of business at Room C-301, C-302, Floor 3, Area C, Building 2, No.8 Xihuanzhong RD.BDA,Beijing,100176,P.R.China , and TECHNOLOGY GROUP CO., LTD. , having a place of business at No.10 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/CN2020/132895 filed on Nov.30,2020; 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;

1

Docket No. X2000458SeT-IEE200787PUS

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>The Webb Law Firm</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.

LEGAL NAME OF INVENTOR	
Inventor: Yi DAI	Date: Jun.01, 207
Signature: Yi DA]	

Title of Invention	OPTICAL SENSOR ARRAY SUBSTRATE AND OPTICAL FINGERPRINT READER	
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-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.		
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 Beijing BOE Sensor Technology Co., Ltd. ,having a place of business at Room C-301, C-302, Floor 3, Area C, Building 2, No.8 Xihuanzhong RD.BDA,Beijing,100176,P.R.China, and 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/CN2020/132895 filed on Nov.30.2020; 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;

I

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>The Webb Law Firm</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.

LEGAL NAME OF INVENTOR	
Inventor: Xiaoguan LI	Date: Jun ol, 201
Signature: Xiaugun L7	

Title of Invention	OPTICAL SENSOR ARRAY SUBSTRATE AND OPTICAL FINGERPRINT READER	
	v named inventor, I hereby declare that:	
This decla	☑ The attached application, or	
	United States application or PCT international application numberfiled on	
	identified application was made or authorized to be made by me.	
I believe the	at I am the original inventor or an original joint inventor of a claimed invention cation.	
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 Beijing BOE Sensor Technology Co., Ltd. , having a place of business at Room C-301, C-302, Floor 3, Area C.Building 2, No.8 Xihuanzhong RD,BDA,Beijing,100176,P.R.China, and TECHNOLOGY GROUP CO., LTD. , having a place of business at____ No.10 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/CN2020/132895 filed on Nov.30.2020; 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;

1

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>The Webb Law Firm</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: Yingzi WANG	Date: 7m.0/, wr
Signature: Ytuzi WANG	
(1	

2

PATENT REEL: 065271 FRAME: 0289

RECORDED: 10/18/2023