505936605 02/26/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5983325

SUBMISSION TYPE:	RESUBMISSION
NATURE OF CONVEYANCE:	ASSIGNMENT
RESUBMIT DOCUMENT ID:	505815472

CONVEYING PARTY DATA

Name	Execution Date
JIYANG SHAO	11/28/2019
YUXIN BI	11/28/2019
CHAO ZHENG	11/28/2019
JIAN SUN	11/28/2019
HAO ZHANG	11/28/2019

RECEIVING PARTY DATA

Name:	BEIJING BOE OPTOELECTRONICS TECHNOLOGY CO., LTD.
Street Address:	NO. 8 XIHUANZHONGLU, BDA
City:	BEIJING
State/Country:	CHINA
Postal Code:	100176
Name:	BOE TECHNOLOGY GROUP CO., LTD.
Name: Street Address:	BOE TECHNOLOGY GROUP CO., LTD. NO. 10 JIUXIANQIAO RD., CHAOYANG DISTRICT
	·
Street Address:	NO. 10 JIUXIANQIAO RD., CHAOYANG DISTRICT

PROPERTY NUMBERS Total: 1

Property Type	Number		
Application Number:	16621398		

CORRESPONDENCE DATA

Fax Number: (571)395-8753

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: 2028221100

Email: patentmail@whda.com

Correspondent Name: WESTERMAN, HATTORI, DANIELS & ADRIAN, LL

Address Line 1: 8500 LEESBURG PIKE

Address Line 2: SUITE 7500

Address Line 4: TYSONS, VIRGINIA 22182

PATENT

505936605 REEL: 051943 FRAME: 0937

ATTORNEY DOCKET NUMBER:	P191256US00
NAME OF SUBMITTER:	YOLIDIA A. PASOS
SIGNATURE:	/YOLIDIA A. PASOS/
DATE SIGNED:	02/26/2020
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 10

source=P191256US00_Combined Declaration and Assignment_02-26-2020#page1.tif source=P191256US00_Combined Declaration and Assignment_02-26-2020#page2.tif source=P191256US00_Combined Declaration and Assignment_02-26-2020#page3.tif source=P191256US00_Combined Declaration and Assignment_02-26-2020#page4.tif source=P191256US00_Combined Declaration and Assignment_02-26-2020#page5.tif source=P191256US00_Combined Declaration and Assignment_02-26-2020#page6.tif source=P191256US00_Combined Declaration and Assignment_02-26-2020#page7.tif source=P191256US00_Combined Declaration and Assignment_02-26-2020#page8.tif source=P191256US00_Combined Declaration and Assignment_02-26-2020#page9.tif source=P191256US00_Combined Declaration and Assignment_02-26-2020#page9.tif source=P191256US00_Combined Declaration and Assignment_02-26-2020#page10.tif

Title of Invention	ELECTRONIC APPARATUS, SPATIAL POSITIONING SYSTEM AND SPATIA L POSITIONING METHOD
As a belov	w named inventor, I hereby declare that:
This decla	aration
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 the 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) 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 Optoelectronics Technology Co., Ltd. ,having a place of business at No.8 Xihuanzhonglu, BDA, Beijing, 100176, P.R.China, and BOE 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 above-identified application for United States Letters Patent, which has been executed by the undersigned concurrently herewith, which claims priority to PCT/CN2019/092522 filed on Jun.24,2019; which in turn claims priority to CN201811166195.1 Oct.08.2018; 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

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>WHDA</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	
woman and the teach that the fact that the f	
Inventor; Jiyang SHAO Date: Nov. 26, 201	
Signature: Jiyang SHAO	

A VIVE S COVER TO SEE SEE SEE SEE SEE SEE SEE SEE SEE SE
ELECTRONIC APPARATUS, SPATIAL POSITIONING SYSTEM AND SPATIA
Title of L POSITIONING METHOD
Invention
As a below named inventor, I hereby declare that:
This declaration
The attached application, or
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.
The above-identified application was made or authorized to the control of the con
believe that I am the original inventor or an original joint inventor of a claimed invention
I helieve that I am the original inventor or an original joint inventor
in the application.
and made in this declaration is
hereby acknowledge that any willful false statement made in this declaration is hereby acknowledge that any willful false statement made in this declaration is
hereby acknowledge that any willful false statement made in the horizon than five (5) punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5)
years, or both.
<u>Language</u>

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 Optoelectronics Technology Co., Ltd. ,having a place of business at No.8 Xihuanzhonglu, BDA, Beijing, 100176, P.R.China, and BOE TECHNOLOGY GROUP CO., LTD. having a place of business at No.10 Jiuxiangiao Rd. Chaoyang District, Beijing 100015, P.R. China (each bereinaster 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/CN2019/092522 filed on Jun.24.2019; which in turn claims priority to <u>CN201811166195.1</u> filed on Oct.08.2018; 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

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>WHDA</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.

	OF INVENTOR	***************************************		***************************************	
Inventor: Y	uxin Bl	Date:	Nov. 28.	7019	
Signature: Y	uxin Bl				

	RONIC APPARATUS, SPATIAL POSITIONING SYSTEM AND SPATIA FIONING METHOD
As a below named	inventor, I hereby declare that:
This declaration is directed to:	The attached application, or
	United States application or PCT international application numberfiled on
	ed application was made or authorized to be made by me. The original inventor or an original joint inventor of a claimed invention
hereby acknowled	dge that any willful false statement made in this declaration is IB U.S.C. 1001 by fine or imprisonment of not more than five (5)

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 Optoelectronics Technology Co., Ltd. ,having a place of business at No.8 Xihuanzhonglu, 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/CN2019/092522_filed on Jun.24,2019; which in turn claims priority to CN201811166195.1 on Oct.08,2018; 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

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>WHDA</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 NAN	ME OF IM	/FNTOR				
Charles All (AL (1))	, w w		,		_	
Inventor:	Chao ZH	ENG	Date: Nov.	28	2019	
					7	
Signature:	Chan	ZHENU			, , , , , , , , , , , , , , , , , , ,	

B made as as	ELECTRONIC APPARATUS, SPATIAL POSITIONING SYSTEM AND SPATIA L POSITIONING METHOD
As a belov	v named inventor, I hereby declare that:
This decla	ration
is directed	to: 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 the	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) of the control

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 Optoelectronics Technology Co., Ltd. , having a place of business at No.8 Xihuanzhonglu, BDA. Beijing, 100176, P.R.China, and BOE 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 above-identified application for United States Letters Patent, which has been executed by the undersigned concurrently herewith, which claims priority to PCT/CN2019/092522 filed on Jun.24,2019; which in turn claims priority to CN201811166195.1 Oct.08,2018; 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

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>WHDA</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: Jian SUN	Date: Nov. 28. 29
Signature: 1104 Swn	,

2

RONIC APPARATUS, SPATIAL POSITIONING SYSTEM AND SPATIATIONING METHOD
l inventor, I hereby declare that:
United States application or PCT international application numberfiled on
d application was made or authorized to be made by me.
he original inventor or an original joint inventor of a claimed invention
ge that any willful false statement made in this declaration is 8 U.S.C. 1001 by fine or imprisonment of not more than five (5)

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 Optoelectronics Technology Co., Ltd. ,having a place of business at No.8 Xihuanzhonglu, 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/CN2019/092522 filed on Jun.24.2019; which in turn claims priority to CN201811166195.1 filed Oct.08,2018; 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

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>WHDA</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: Hao ZHANG Date: NoV , W , W , W , W , W , W , W , W , W ,
	Signature: Hao 2 HANG

PATENT REEL: 051943 FRAME: 0948

RECORDED: 12/11/2019