505975121 03/19/2020 PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT				
NATURE OF CONVEYAN	ICE:	ASSIGNMENT	ASSIGNMENT			
CONVEYING PARTY DA	АТА	·				
		Name	Execution Date			
BIN ZHANG			03/11/2019			
CHUANYONG BAI			09/18/2018			
ANDRIY ANDREYEV			10/01/2018			
ZHIQIANG HU			10/23/2018			
RECEIVING PARTY DA	ТА					
Name:	KONINK	LIJKE PHILIPS N.V.				
Street Address:	нідн те	ECH CAMPUS 5				
City:	EINDHC	DVEN				
State/Country:	NETHER	RLANDS				
Postal Code:	5656 AE					
PROPERTY NUMBERS Property Type		Number				
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		Number 16648760				
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U.S.A. Sole/Joint

ASSIGNMENT & DECLARATION

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s) or Inventor, hereby sell, and assign, and transfer the entire and exclusive right, title, and interest in the following to Koninklijke Philips N.V., having a place of business at High Tech Campus 5, 5656 AE, Eindhoven, the Netherlands, its successors, assigns, and legal representatives, including any nominees (collectively "the Assignee") my/our invention for which an application:

is executed concurrently herewith

was filed on ***, having a United States Application No. ***

was filed on 2018-Sep-18, having an International Application No. PCT/EP2018/075153,

and all rights in and to said application, and all other United States, foreign and international patent applications associated therewith, based thereon, or claiming priority therefrom including, but not limited to, any and all provisionals, non-provisionals divisions, continuations, continuations-in-part, re-examinations, reissues, and extensions thereof, and the right to claim priority thereto, and the entire and exclusive right, title, and interest in and to any and all patents granted on these applications.

I/We authorize and request that the Patent Office officials in the United States and in any and all foreign countries to issue any and all Letters Patent when granted, solely to the Assignee(s), for its sole use, and that of its successors, assigns, and legal representatives.

I/We will provide my/our cooperation to enable the Assignee to enjoy the foregoing right, title, and interest to the fullest extent. Upon request at the expense of the Assignee, I/we agree to execute all papers, take all rightful oaths, testify in all legal proceedings including patent prosecution actions and infringement actions, and do all other such acts which may be necessary, desirable, or convenient for securing and maintaining patents on the foregoing invention or for perfecting title thereto in the Assignee.

I/We certify that I/we have the full right to convey the above rights.

As a below-named Inventor, I hereby declare that the above-identified application was made or authorized to be made by me, and 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.

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			REEL: 0	PATENT 52164 FRAME: 0901
Date:	Signa	ture: Zhiqiang HU		, Assignor/Inventor
Date:	Signa	ture: Andriy ANDREYE	V	_, Assignor/Inventor
Date:	Signa	ture: Chuanyong BAI		_, Assignor/Inventor
Date: <u>3/11</u>	<u> / フー> }</u> Signa	ture: Bin ZHANG	le	_, Assignor/inventor

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s) or Inventor, hereby sell, and assign, and transfer the entire and exclusive right, title, and interest in the following to Koninklijke Philips N.V., having a place of business at High Tech Campus 5, 5656 AE, Eindhoven, the Netherlands, its successors, assigns, and legal representatives, including any nominees (collectively "the Assignee") my/our invention for which an application:

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Date:	Signature:	Bin ZHANG	, Assignor/Inventor
Date: _Sept 18, 2018_	Signature:	_l~_ 25	Assignor/Inventor
		 Chuanyong BAI	
Date:	Signature:	Andriy ANDREYEV	, Assignor/Inventor
Date:	Signature:	Zhiqiang HU	, Assignor/Inventor
			PATENT REEL: 052164 FRAME: 0902

ASSIGNMENT & DECLARATION

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s) or Inventor, hereby sell, and assign, and transfer the entire and exclusive right, title, and interest in the following to Koninklijke Philips N.V., having a place of business at High Tech Campus 5, 5656 AE, Eindhoven, the Netherlands, its successors, assigns, and legal representatives, including any nominees (collectively "the Assignee") my/our invention for which an application:

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Date:	Signature:		Assignor/Inventor
		' Bin ZHANG	
Date:	Signature:	, Chuanyong BAI	Assignor/Inventor
Date: 01-00-2018	Signature:	Andriy ANDREYEV	Assignor/Inventor
Date:	Signature:	, Zhiqiang HU	Assignor/Inventor

PATENT REEL: 052164 FRAME: 0903 U.S.A. Sole/Joint

ASSIGNMENT & DECLARATION

Docket No. 2017P01763WOUS

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Date:	Signature:	Bin ZHANG	Assignor/Inventor
Date:	Signature:	Chuanyong BAI	Assignor/Inventor
Date:	Signature:	Andriy ANDREYEV	Assignor/Inventor
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RECORDED: 03/19/2020