505205640 11/27/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5252408

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JIN QU	11/21/2018
FUBIAO XIA	11/21/2018
YONG MAO	11/27/2018
ALEXANDER RYAN MANKOVICH	11/20/2018
RAYMOND J. KRASINSKI	11/20/2018

RECEIVING PARTY DATA

Name:	KONINKLIJKE PHILIPS N.V.
Street Address:	HIGH TECH CAMPUS 5
City:	EINDHOVEN
State/Country:	NETHERLANDS
Postal Code:	5656 AE

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16199765

CORRESPONDENCE DATA

Fax Number: (914)495-9540

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.

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Correspondent Name: PHILIPS INTELLECTUAL PROPERTY & STANDARD

Address Line 1: 465 COLUMBUS AVENUE

Address Line 2: SUITE 340

Address Line 4: VALHALLA, NEW YORK 10595

Total Attackments, 5	
DATE SIGNED:	11/27/2018
SIGNATURE:	/Kyle J. Trout/
NAME OF SUBMITTER:	KYLE J. TROUT
ATTORNEY DOCKET NUMBER:	2017P02449US01

Total Attachments: 5

PATENT REEL: 047588 FRAME: 0960

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ASSIGNMENT & DECLARATION

Docket No. 2017P02449US01

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 e	executed concurrently	herewith		
X wa	s filed on November 2	6, 2018 , having a	a United States Application No. 16/199,765	
Пwa	s filed on	-, having an	International Application No.	
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and all	•		ce officials in the United States and in any and all foreign on the Assignee(s), for its sole use, and that of its successors	•
Upon i proces neces:	request at the expense edings including patent	of the Assignee, l prosecution action	the Assignee to enjoy the foregoing right, title, and interes I/we agree to execute all papers, take all rightful oaths, tes ns and infringement actions, and do all other such acts wh g and maintaining patents on the foregoing invention or fo	tify in all legal ich may be
I/We c	ertify that I/we have th	e full right to conve	ey the above rights.	
		•	nat the above-identified application was made or authorize I joint Inventor of a claimed invention in the application.	d to be made by me,
	oy acknowledge that a conment of not more tha		ement made in this declaration is punishable under 18 U.S r both.	S.C. 1001 by fine or
Date:	11/21/18	Signature:	/Jin Qu/	Assignor/Inventor
		w.g.r	/Jin Qu/ Jin Qu	,
Date:				
		wright on out i we	Fubiao Xia	, , , , , , , , , , , , , , , , , ,
Date:		Signature: _		_, Assignor/Inventor
			Yong Mao	
Date:		Signature: _	Alexander Ryan Mankovich	_, Assignor/Inventor
			Alexander Ryan Mankovich	
Date:		Signature: _		, Assignor/Inventor

Raymond J. Krasinski

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is executed concurre	ently herewith		
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therewith, based thereoudivisions, continuations,	n, or claiming priority the continuations-in-part,	nerefrom including, but not limited to re-examinations, reissues, and exte	ternational patent applications associated o, any and all provisionals, non-provisionals ensions thereof, and the right to claim priority patents granted on these applications.
•			d in any and all foreign countries to issue any d that of its successors, assigns, and legal
Upon request at the exp proceedings including p	ense of the Assignee, atent prosecution actic	I/we agree to execute all papers, ta ns and infringement actions, and d	g right, title, and interest to the fullest extent. ike all rightful oaths, testify in all legal o all other such acts which may be pregoing invention or for perfecting title
I/We certify that I/we have	ve the full right to conv	ey the above rights.	
As a below-named Inver	ntor, I hereby declare t		was made or authorized to be made by me, on in the application.
I hereby acknowledge the imprisonment of not more			unishable under 18 U.S.C. 1001 by fine or
Date:	Signature:		, Assignor/Inventor
		Jin Qu	
Date:	Signature:	/Fubiao Xia/	, Assignor/Inventor
		Fubiao Xia	, Assignormivencer
Date:	Signature:		. Assignor/Inventor
		Yong Mao	, Assignor/Inventor
Date:	Signature:		, Assignor/Inventor
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Date:	Signature:		, Assignor/Inventor

Raymond J. Krasinski

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therewith, based thereon, or clai divisions, continuations, continu	iming priority thations-in-part,	other United States, foreign and international patent applic nerefrom including, but not limited to, any and all provisiona re-examinations, reissues, and extensions thereof, and the , and interest in and to any and all patents granted on these	ls, non-provisionals right to claim priority
•		ice officials in the United States and in any and all foreign on the Assignee(s), for its sole use, and that of its successors,	•
Upon request at the expense of proceedings including patent pro	the Assignee, osecution actio	the Assignee to enjoy the foregoing right, title, and interest I/we agree to execute all papers, take all rightful oaths, test ons and infringement actions, and do all other such acts whi ong and maintaining patents on the foregoing invention or for	ify in all legal ch may be
I/We certify that I/we have the fu	ıll right to conv	ey the above rights.	
-	,	hat the above-identified application was made or authorized al joint Inventor of a claimed invention in the application.	I to be made by me,
I hereby acknowledge that any wimprisonment of not more than f		tement made in this declaration is punishable under 18 U.S. or both.	C. 1001 by fine or
Date:	Signature:	Jin Qu	, Assignor/Inventor
		Jin Qu	
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Date: November 27, 2018	Sianoturo:	/Yong Mao/	Accianar/Invantar
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Date:	oignature: _	Alexander Ryan Mankovich	, Assignor/inventor
Date:	Signature:		, Assignor/Inventor
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Raymond J. Krasinski

is executed concurrently herewith

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 $\overline{[\mathbf{X}]}$ was filed on $\frac{\text{November 26, 2018}}{\text{November 26, 2018}}$, having a United States Application No. $\frac{16}{199,765}$

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RECORDED: 11/27/2018

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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		ce officials in the United States and in any and all foreigr he Assignee(s), for its sole use, and that of its successor	
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		hat the above-identified application was made or authorized joint Inventor of a claimed invention in the application.	red to be made by me,
I hereby acknowledge that ar imprisonment of not more that		ement made in this declaration is punishable under 18 U or both.	S.C. 1001 by fine or
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Date:	Signature:	Fubiao Xia	
Date:	Signature: _	Yong Mao	Assignor/Inventor
Date:	Signature: _	Alexander Ryan Mankovich	, Assignor/Inventor
Date: 11/20 /2018	Signature:	Raymond J. Krasinski	, Assignor/inventor