505885318 01/28/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT5932143

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YILE LIAO	11/01/2018
KANNAN UDAYAPPAN PRAVEEN	11/01/2018
YONG JIANG	11/01/2018
LIHONG ZHAO	07/30/2018

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:	16634604	

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.

Phone: 914-495-9516

Email: jaclyn.busta@philips.com

PHILIPS INTELLECTUAL PROPERTY & STANDARD **Correspondent Name:**

465 COLUMBUS AVENUE Address Line 1:

SUITE 340 Address Line 2:

Address Line 4: VALHALLA, NEW YORK 10595

ATTORNEY DOCKET NUMBER:	2017P02262WOUS
NAME OF SUBMITTER:	DOUGLAS B. MCKNIGHT
SIGNATURE:	/Douglas B. McKnight/
DATE SIGNED:	01/28/2020

Total Attachments: 4

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PATENT REEL: 051638 FRAME: 0319 505885318

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PATENT REEL: 051638 FRAME: 0320 For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s), hereby sell,

a place of business	at High Tech Campus 5,5656	ght, title, and interest in the following to K AE, Eindhoven, the Netherlands, its successely "the Assignee") my/our invention for v	sors, assigns, and legal
was filed on	y me/us on, hav	ving a Serial Noonal Application No. PCT/EP2018/070524	
therewith, based the provisionals division	ereon, or claiming priority ther	ner United States, foreign and international efrom including, but not limited to, any and as-in-part, re-examinations, reissues, and exight, title, and interest in and to any and a	fall provisionals, non- tensions thereof, and the right to
	Patent when granted, solely to	officials in the United States and in any and the Assignee(s), for its sole use, and that o	
extent. Upon reque legal proceedings i	est at the expense of the Assign neluding patent prosecution ac e, or convenient for securing a	ne Assignee to enjoy the foregoing right, the lee, I/we agree to execute all papers, take a tions and infringement actions, and do all cond maintaining patents on the foregoing investigation.	Il rightful oaths, testify in all ther such acts which may be
I/We certify that I/	we have the full right to conve	y the above rights.	
	(sign name here)	1 molyle	
Date	(print name here)	Yile-LIAO	, Assignor
Date	(print name here)	Kannan Udayappan PRAVEEN	, Assignor
Date	(print name here)	Yong JIANG	Assignor
Date	(print name here)	Lihong ZHAO	, Assignor

Page 1 of 1

to

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s), hereby sell,

=		ght, title, and interest in the following to K	
"	-	AE, Eindhoven, the Netherlands, its success	
representatives, includ	ing any nominees (collectiv	ely "the Assignee") my/our invention for v	which an application:
			
is executed concur	•		
•	e/us on		
		ving a Serial No.	
was filed on. 30 Ja	ii 2018, having an internation	onal Application No. PCT/EP2018/070524	'e
and all violity in and to	esid application, and all at	ner United States, foreign and international	natent annlications associated
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I/We authorize and re-	quest that the Patent Office	officials in the United States and in any and	I all foreign countries to issue
	•	the Assignee(s), for its sole use, and that of	
legal representatives.		•	
I/We will provide my/	our cooperation to enable th	ne Assignee to enjoy the foregoing right, tit	le, and interest to the fullest
-		nee, I/we agree to execute all papers, take a	
legal proceedings incl	uding patent prosecution ac	tions and infringement actions, and do all o	ther such acts which may be
necessary, desirable, o	or convenient for securing as	nd maintaining patents on the foregoing inv	vention or for perfecting title
thereto in the Assigne	e.		
I/We certify that I/we	have the full right to convey	y the above rights.	
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	(sign name here)	,	
Date	(print name here)	Yile LIAO	, Assignor
1/11/2018		alyfrano	
Date	(print name here)	Kannan Udayappan PRAVEEN	, Assignor
Date	(print name here)	Yong JIANG	, Assignor
	····		
Date	(print name here)	Lihong ZHAO	, Assignor

Page 1 of 1

and assign, and a place of busin	l transfer the entire and exclusive ness at High Tech Campus 5,565	/we acknowledge receipt, I/we as a below-n right, title, and interest in the following to I 5 AE, Eindhoven, the Netherlands, its succe	Koninklijke Philips N.V., having ssors, assigus, and legal
representatives	, mostiding any nominees (collect	tively "the Assignee") my/our invention for	which an application:
is executed	concurrently herewith		
was execute	ed by me/us on	******************************	
was filed or	d.,	aving a Serial No	234014014C1
was filed on	i. 30 Jul 2018, having an internal	ional Application No. PCT/EP2018/07052	₫,
and all rights in	and to said application, and all c	ther United States, foreign and internationa	l patent applications associated
		refrom including, but not limited to, any an	
provisionals dív	risions, continuations, continuation	one-in-part, re-examinations, reissues, and e we right, title, and interest in and to any and	xtensions thereof, and the right to
any and all Lett legal representa		o the Assignec(s), for its sole use, and that o	f its successors, assigns, and
extent. Upon re legal proceeding	quest at the expense of the Assig as including patent prosecution as able, or convenient for securing a	the Assignee to enjoy the foregoing right, the nee, I/we agree to execute all papers, take a ctions and infringement actions, and do all cund maintaining patents on the foregoing ins	ll rightful oaths, testify in all ther such acts which may be
I/We certify that	: I/we have the full right to conve	y the above rights.	
	(sign name here)		
Date	(prini name here)	Yile LIAO	, Assignor
Date	(print name here)	Kannan Udayappan PRAVEEN	, Assignor
Date	(print name here)	Yong JIANG	, Assignor
Date	(print name here)	Lihong ZMAO	. Assignor

Page 1 of 1

to

RECORDED: 01/28/2020

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s), hereby sell,

and assign, and trans	fer the entire and exclusive r	right, title, and interest in the following to l	Koninklijke Philips N.V., having
a place of business a	t High Tech Campus 5,5656	AE, Eindhoven, the Netherlands, its succe	ssors, assigns, and legal
representatives, inclu	iding any nominees (collecti	vely "the Assignee") my/our invention for	which an application:
is executed concu	-		
•	me/us on		
		ving a Serial No.	
was filed on. 30	Jul 2018, having an Internati	onal Application No. PCT/EP2018/07052	4,
and all wights in and	to gold application, and all at	her United States, foreign and internationa	I natant applications associated
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		ns-in-part, re-examinations, reissues, and e	-
-		e right, title, and interest in and to any and	· · · · · · · · · · · · · · · · · · ·
• •	o, and the entire and exclusiv	e right, title, and interest in and to any and	an patents gramed on these
applications.			
I/We authorize and r	equest that the Patent Office	officials in the United States and in any ar	nd all foreign countries to issue
	•	the Assignee(s), for its sole use, and that of	-
legal representatives.		the rissignee(s), for its sole use, and that t	or no successors, assigns, and
regar representatives.	•		
I/We will provide m	v/our cooneration to enable t	he Assignee to enjoy the foregoing right, to	itle and interest to the fullest
-		nee, I/we agree to execute all papers, take a	
	- "	etions and infringement actions, and do all	-
		and maintaining patents on the foregoing in	,
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I/We certify that I/w	e have the full right to conve	ay the above rights	
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	(sign name here)		
Date	(print name here)	Yile LIAO	, Assignor
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Date	(print name here)	Kannan Udayappan PRAVEEN	, Assignor
Date	(print name here)	Yong JIANG	, Assignor
30 July, 2018		Gilm	
Date	(print name here)	Lihong ZHAO	, Assignor

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PATENT REEL: 051638 FRAME: 0324