505670219 09/13/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5717026

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SHYAM BHARAT	03/15/2018
MAN NGUYEN	02/02/2018
AMEET KUMAR JAIN	09/05/2019
JEAN-LUC FRANCOIS-MARIE ROBERT	02/01/2018
VIJAY PARTHASARATHY	07/29/2018
ATUL GUPTA	02/01/2018
KUNAL VAIDYA	08/13/2018
RAMON QUIDO ERKAMP	12/18/2018

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:	16479303	

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: 914-495-9516

Email: barbara.kinney@Philips.com

Correspondent Name: PHILIPS INTELLECTUAL PROPERTY & STANDARD

Address Line 1: 465 COLUMBUS AVENUE

Address Line 2: SUITE 340

Address Line 4: VALHALLA, NEW YORK 10595

ATTORNEY DOCKET NUMBER: 2016P01162WOUS

NAME OF SUBMITTER: ERIC G. HALSNE

SIGNATURE: /Eric G. Halsne/

DATE SIGNED:	09/13/2019
Total Attachments: 8	
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For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s), 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 6	executed concurrently herewith
□ wa	is executed by me/us on
□ wa	s filed on, having a Serial No.
🔀 wa	is filed on. 11 Jan 2018, having an International Application No. PCT/EP2018/050601,

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.

3/15/2018	(sign name here)	Dryan 2		
Date	(print name here)	Shyam BHARAT	, Assignor	•
Date	(print name here)	Man NGUYEN	, Assignor	•
Date	(print name here)	Ameet Kumar JAIN	, Assignor	
Date	(print name here)	Jean-Luc François-Marie ROBERT	, Assignor	
Date	(print name here)	Vijay PARTHASARATHY	, Assignor	
Date	(print name here)	Atel GUPTA, MD	, Assignor	
Date	(print name here)	Kunai VAIDYA	, Assignor	
Date	(print name here)	Ramos Quido ERKAMP	. Assignor	

Page 1 of 1

Date

For good and valuab	le consideration, of which I we	acknowledge receipt, I/we as a below-name	ed Assignor(s), hereby sell,
and assign, and trans	fer the entire and exclusive righ	nt, title, and interest in the following to Kor	ninklijke Philips N.V., having
a place of business a	t High Tech Campus 5,5656 AI	E, Eindhoven, the Netherlands, its successo	rs, assigns, and legal
representatives, inclu	iding any nominees (collectivel	y "the Assignee") my/our invention for wh	nich an application:
is executed concu	urrently herewith		. *
was executed by	me/us on		
was filed on	, havir	ng a Serial No	*****
		nal Application No. PCT/EP2018/050601,	
and all rights in and	to said application, and all othe	r United States, foreign and international p	atent applications associated
therewith, based ther	eon, or claiming priority theref	rom including, but not limited to, any and	all provisionals, non-
provisionals division	s, continuations, continuations-	in-part, re-examinations, reissues, and exte	ensions thereof, and the right to
claim priority thereto	o, and the entire and exclusive r	ight, title, and interest in and to any and all	patents granted on these
applications.		* ·	
	atent when granted, solely to th	ficials in the United States and in any and a ne Assignee(s), for its sole use, and that of i	**
legal proceedings in necessary, desirable, thereto in the Assign	cluding patent prosecution action of convenient for securing and	e, I/we agree to execute all papers, take all ons and infringement actions, and do all oth maintaining patents on the foregoing invente above rights.	ner such acts which may be
	(sign name here)		
Date	(print name here)	Shyam BHARAT	, Assignor
21212018	MAN NAME N	1. Cm	· -
Date Date	(print name here)	Man NGUYEN	, Assignor
Date	(print name here)	Ameet Kumar JAIN	, Assignor
Date	(print name here)	Jean-Luc Francois-Marie ROBERT	, Assignor
Date	(print name here)	Vijay PARTHASARATHY	, Assignor
Date	(print name here)	Atal GUPTA, MD	, Assignor
Date	(print name here)	Kunal VAIDVA	, Assignor

(print name here)

Ramon Quido ERKAMP

PATENT REEL: 050364 FRAME: 0690

, Assignor

U.S.A. Sole/Joint

ASSIGNMENT

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s), 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 execut	ed by me/us on
was filed o	n, having a Serial No
was filed o	n. 11 Jan 2018, having an International Application No. PCT/EP2018/050601,

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.

	(sign name here)		
Date	(print name here)	Shyam BHARAT	, Assignor
Date September 5, 2010	(print name here)	Man NGUYEN /Ameet Kumar JAIN/	, Assignor
September 5, 2019 Date	(print name here)	Ameet Kumar JAIN	, Assignor
Date	(print name here)	Jean-Luc Francois-Marie ROBERT	, Assignor
Date	(print name here)	Vijay PARTHASARATHY	, Assignor
Date	(print name here)	Atul GUPTA, MD	, Assignor
Date	(print name here)	Kunal VAIDYA	, Assignor
Date	(print name here)	Ramon Quido ERKAMP	, Assignor

Page 1 of 1

Date

and assign, and transfe a place of business at l	r the entire and exclusive rig High Tech Campus 5,5656 A	e acknowledge receipt, I/we as a below-nar ght, title, and interest in the following to Ko E, Eindhoven, the Netherlands, its success ely "the Assignee") my/our invention for w	minklijke Philips N.V., having ors, assigns, and legal
was filed on	evus on, hav	ing a Serial No	
therewith, based thereo provisionals divisions,	on, or claiming priority there continuations, continuations	er United States, foreign and international parts from including, but not limited to, any and s-in-part, re-examinations, reissues, and extright, title, and interest in and to any and al	all provisionals, non- ensions thereof, and the right to
		fficials in the United States and in any and he Assignee(s), for its sole use, and that of	-
extent. Upon request a legal proceedings inclu necessary, desirable, or thereto in the Assignee	t the expense of the Assigne ding patent prosecution action convenient for securing and	Assignee to enjoy the foregoing right, title e, I'we agree to execute all papers, take all ons and infringement actions, and do all oth maintaining patents on the foregoing investigations.	rightful oaths, testify in all ner such acts which may be
b we certify that hwe i	iave the fun fight to convey	me above rights.	
	(sign name here)		
Date	(print name here)	Shyam BHARAT	_* Assignor
Date	(print name here)	Man NGUYEN	« Assignor
Date	(print name here)	Ameet Kumar JAIN	, Assignor
02/s[/[]- Date	10 (print name here)	Jean-Luc Francois Marie ROBERT	
3.0310	(positio risativo risato)	And the second s	_{sc} raengnor
Date	(print name here)	Vijay PARTHASARATHY	Assignor
Date	(print name here)	Atul GUPTA, MD	Assignor
Date	(print name here)	Kunal VAIDYA	

Page 1 of 1

(print name here)

Ramon Quido ERKAMP

PATENT REEL: 050364 FRAME: 0692

Assignor

U.S.A. Sole/Joint

ASSIGNMENT

Docket No. 2016P01162WOUS

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s), hereby sell, and assign, and transfer the entire and exclusive right, (tile, and interest in the following to Kominklijke Philips N.V., having a place of business at High Tech Campus 5.3658 AE. Eindhoven, the Notherlands, its anecessors, assigns, and legal representatives, including any cominees (collectively "the Assigner") my/our invention for which an application:

	is executed concurrently herewith
	was executed by merus on
w	was filed on having a Serie! No
	was filed on 11 Jan 2018, having an International Application No. PCT/EP2018/050601

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, refiscues, and extensions thereof, and the right to claim priority therein, 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 difficials in the United States and in any and all foreign countries to issue any and all Letters Patent when gramed, solely to the Assigned(s), for its sole use, and that of its successors, assigns, and legal representatives.

I/We will provide my/our cooperation to enable the Assigner to enjoy the foregoing right, title, and interest to the fullest extent. Upon respect at the expense of the Assigner, I/we agree to execute all papers, take all rightful only, 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 fur perfecting title thereto in the Assigner.

If We carriefy that I we have the full right to convey the above rights.

2.2	(siga name here)		
Ose	(print name here)	Shyam BHARAT	Assigner
Date	(print name here)	Man NGUYEN	, Assigner
Zw.	(print name here)	Assert Sumar JAIN	Assignor
Desc.	(print name here)	Jean-Luc Francojs Marie ROBERT	Assignor
Date	(print name hers)	Vijse Farthasarathy	, Assignar
Östr	(print name have)	And GUPTA, MD	Assigner
Ditte	(print name here)	Konsi Vajibva	. Assignor
Date	(prot name here)	Ramon Quico ERKANE	Applicates

Page 1 of 1

Date

Date

and assign, and trans	fer the entire and exclusive r t High Tech Campus 5,5656	we acknowledge receipt, I/we as a belowight, title, and interest in the following to AE, Eindhoven, the Netherlands, its sucycly "the Assignee") my/our invention for the sucycly "the Assignee") my/our invention for the sucycly "the Assignee".	o Koninklijke Philips N.V., having eccessors, assigns, and legal
was filed on	me/us on, ha	ving a Serial Noonal Application No. PCT/EP2018/050	
therewith, based ther provisionals division	reon, or claiming priority then is, continuations, continuations	her United States, foreign and internation refrom including, but not limited to, any as-in-part, re-examinations, reissues, and eright, title, and interest in and to any a	and all provisionals, non- d extensions thereof, and the right to
	atent when granted, solely to	officials in the United States and in any the Assignee(s), for its sole use, and the	•
extent. Upon reques legal proceedings inconecessary, desirable, thereto in the Assign	t at the expense of the Assign cluding patent prosecution ac or convenient for securing a	ne Assignee to enjoy the foregoing right nee, I/we agree to execute all papers, tak tions and infringement actions, and do a nd maintaining patents on the foregoing y the above rights.	te all rightful oaths, testify in all all other such acts which may be
	(sign name here)		
Date	(print name here)	Shyam BHARAT	, Assignor
Date	(print name here)	Man NGUYEN	, Assignor
Date	(print name here)	Ameet Kumar JAIN	, Assignor
Date	(print name here)	Jean-Luc Francois-Marie ROBERT	, Assignor
Date	(print name here)	Vijay PARTHASARATHY	, Assignor
Date 2/1/2018	Atul Gupta, MD	Atul GUPTA, MD	, Assignor

Kunal VAIDYA

Ramon Quido ERKAMP

(print name here)

(print name here)

PATENT REEL: 050364 FRAME: 0694

, Assignor

, Assignor

U.S.A. Sole/Joint

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s), 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 ex	recuted c	ncurrently herewith
	was	executed	by me/us on
	was	filed on.	, having a Serial No.
\boxtimes	was	filed on.	1 Jan 2018, having an International Application No. PCT/EP2018/050601,

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.

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

	(sign name here)		
Date	(print name here)	Shyam BHARAT	, Assignor
Date	(print name here)	Man NGUYEN	, Assignor
Date	(print name here)	Ameet Kumar JAIN	, Assignor
Date	(print name here)	Jean-Luc Francois-Marie ROBERT	, Assignor
Date	(print name here)	Vijay PARTHASARATHY	, Assignor
Date	(print name here)	Atul GUPTA, MD	, Assignor
03 13 20 8 Date	(print name here)	Kunai VAIDYA	, Assignor
Date	(print name here)	Ramon Quido ERKAMP	, Assignor

Page 1 of 1

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s), 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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was filed on	, havi	ng a Serial Nonal Application No. PCT/EP2018/050601,		
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Date	(sign name here) (print name here)	Shyam BHARAT	, Assignor	
		·		
Date	(print name here)	Man NGUYEN	, Assignor	
Date	(print name here)	Ameet Kumar JAIN	, Assignor	
Date	(print name here)	Jean-Luc Francois-Marie ROBERT	, Assignor	
Date	(print name here)	Vijay PARTHASARATHY	, Assignor	
Date	(print name here)	Atul GUPTA, MD	, Assignor	

Page 1 of 1

Ramon Quido ERKAMP

PATENT REEL: 050364 FRAME: 0696

, Assignor

, Assignor

(print name here)

(print name here)

Date

Date