505970951 03/17/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6017659

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YPE BERNARDUS BRADA	09/14/2018
MARCEL SCHOUTEN	09/18/2018
MAURITS KOENEN	09/17/2018
NIKOLAJ VASILJEVITSJ ZJROECHA	09/14/2018
MARK JOHANNES LELIEVELD	09/13/2018
CHUEN YU CYRUS PANG	09/19/2018
MICHEL VAN ES	09/13/2018

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:	16647972

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

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: 2017P02274WOUS

NAME OF SUBMITTER: DOUGLAS B. MCKNIGHT

SIGNATURE: /Douglas B. McKnight/

DATE SIGNED: 03/17/2020

505970951 REEL: 052138 FRAME: 0147

PAIENI

Total Attachments: 6 source=2017P02274WOUS_Executed_Dec_Assignment#page1.tif source=2017P02274WOUS_Executed_Dec_Assignment#page2.tif source=2017P02274WOUS_Executed_Dec_Assignment#page3.tif source=2017P02274WOUS_Executed_Dec_Assignment#page4.tif source=2017P02274WOUS_Executed_Dec_Assignment#page5.tif source=2017P02274WOUS_Executed_Dec_Assignment#page6.tif

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 ex	xecuted ·	concurrently herewith	
was	filed on	***, having a United States Application No. ***	
⊠ was	filed on	2018-Sep-12, having an international Application No. I	PCT/EP2018/074558

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, tille, 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.

Date: <u>CQ-C1-2018</u>	Signature:	Ype Bernsrdus SKADA	Assignor/Inventor
Date:	Signature:		Assignor/Inventor
Date: 4 1/2 1/2/2	Signature:	Marcel SCMOCTEX Maurit KOCXEX	Assignor/inventor
Date:	Signature:		Assignor/Inventor
		Nikolaj Vasiljevitaj ZHROECHA	•
Date:	Signature:		Assignor/Inventor
		Mark Johannes LELIEVELD	
Date:	Signature:		Assignor/Inventor
		Chaes Yu Cyrss PANG	
Date:	Signature;		- Assignor/Inventor
		Michel VAN ES	

For good and valuable consideration thereby self, and assign, and transforming a place of business at High representatives, including any non-	er the entire and exclu- Tech Cambus 5, 565	isive right, title, and i 6 AE, Eindhoven, the	nterest in the lollowin • Netherlands, its suc	g to koninklijke Hillips (k.) cessors, assigns, and lega
☐ is executed concurrently herev ☐ was filed on *** having a Unite ☐ was filed on 2018-Sep-12, hav	ed States Application N	No.*** pplication No. PCT/E	EP2018/074558	
and all rights in and to said applications therewith, based thereon, or claim divisions, continuations, continuations, and the entire and exclusions.	ing priority therefrom i ions-in-part, re-examinate ive right, title, and inte	ncluding, but not kin hations, reissues, and rest in and to any an	ited to, any and air production of extensions thereof, displaying granted of the control of the	and the right to claim prior on these applications.
I/We authorize and request that the and all Letters Patent when grant representatives.	e Patent Office officia ed. solely to the Assign	is in the United State nee(s), for its sole us	es and in any and all f e, and that of its succ	oreign countries to issue at essors, assigns, and legal
I/Ve will provide mylour cooperal upon request at the expense of the proceedings including patent pro- necessary, desirable, or convenient thereto in the Assignee.	he Assignee, I/we agre secution actions and it	e to execute all papi Innovernent actions	and do all other such	acts which may be
I/We certify that the have the full	linght to convey the alth	oove rights.		
As a beginnamed inventor, I her and that I am the original invento	selv declare that the a	bove-identified applic	cation was made or a evention in the applica	uthorized to be made by materials
Thereby acknowledge that any wangescoment of not more than fi	nijitui faise stalameni m ve (5) years, or both	in this declaration	on is punishable unde	r 18 U.S.C. 1001 by fine o
Date: Date: Date: Date: Date: Date: Date: Date:	Signature Maurice Signature Maurice Signature States Signature Clause Signature Signature Clause Signature	PARTIE BRADA SCHOETEN ROENEN Vesiljentej ZJEGE udinniers LELLEVEL VE CYTE PARE SVANES		Assignor/Inventor Assignor/Inventor Assignor/Inventor Assignor/Inventor Assignor/Inventor Assignor/Inventor Assignor/Inventor

hereby sell, and assign, and tran having a place of business at Hig	isfer the entire gh Tech Camp	I/we acknowledge receipt, I/we as a below-named As a and exclusive right, title, and interest in the following ous 5, 5656 AE, Eindhoven, the Netherlands, its succ actively "the Assignee") my/our invention for which an	to Koninklijke Philips N.V., essors, assigns, and legal
is executed concurrently here was filed on ***, having a Un		oplication No. ***	
was filed on 2018-Sep-12, h	aving an Inter	national Application No. PCT/EP2018/074558,	
therewith, based thereon, or claid divisions, continuations, continuations, continuations.	ming priority t ations-in-part,	fother United States, foreign and international patent herefrom including, but not limited to, any and all prov re-examinations, reissues, and extensions thereof, ar e, and interest in and to any and all patents granted or	risionals, non-provisionals and the right to claim priority
*		fice officials in the United States and in any and all for the Assignee(s), for its sole use, and that of its succes	
Upon request at the expense of proceedings including patent pro	the Assignee, secution action	a the Assignee to enjoy the foregoing right, title, and in I/we agree to execute all papers, take all rightful oath ons and infringement actions, and do all other such ac ng and maintaining patents on the foregoing invention	is, testify in all legal its which may be
I/We certify that I/we have the fu	ll right to conv	vey the above rights.	
•		that the above-identified application was made or auti al joint Inventor of a claimed invention in the application	•
I hereby acknowledge that any v imprisonment of not more than f		itement made in this declaration is punishable under 1 or both.	8 U.S _. C. 1001 by fine or
Date:	Signature:	Ype Bernardus BRADA	Assignor/inventor
Nato:	Simphura		Assignar/Inventor

Marcel SCHOUTEN Date: _____ Assignor/Inventor Signature: Maurits KOENEN Date: 14-08-2013 Assignor/Inventor Signature: Nikolaj Vasiljevitšį ŽIROK HA Date: Assignor/inventor Signature: Mark Johannes LELIEVELD Assignor/inventor Date: Signature: Chuen Yn Cyrns PANG Assignor/Inventor Date: _____ Signature: Michel VAN ES

U.S.A. Solet/Joint		ASSIGNMENT & DECLARATION	Docket No. 2817P92274WOUS
hereby sell, and assign, and having a place of business at	tansfer the enti- High Tech Can	i live acknowledge receipt. I've as a below e and exclusive right the land interest in th our 5, 5656 AE, Eindhoven, the Netherland actively "the Assignee") my/our invention to	e folosong to Koninklijke Philips N.V Is its successors, assigns, and legal
and all rights in and to said a	United States A I having an Inte polication, and a	mational Application No. PCT/EP2018/0746 Bother United States, foreign and internatio	nai patent applications associated
divisions, continuations, cont	nuations-in-part	therefrom including but not limited to any a re-examinations, resource, and extensions is, and interest in and to any and all patents	thereof, and the right to claim priority.
Ave authorize and request it and all Letters Patent when p representatives	iat the Patent Cl ranted, solely to	fice efficials in the United States and in any the Assignce(s), for its sole use, and that o	and all foreign countries to issue any filts successors, assigns, and legal
Upon request at the expense proceedings including patent	of the Assignee prosecution act	is the Assignee to enjoy the loregoing right, live agree to execute all papers, take all ri ons and infringement actions, and do all off rig and maintaining patents on the foregoin	ghtisi oaths, testify in all legal ser such acts which may be
I/We certify that I/we have the	sfull right to con	vey the above rights	
		that the above-identified application was milial joint inventor of a claimed invention in the	
I hereby acknowledge that an impresonment of not more than		stement made in this declaration is punishat or both	ote under 18 U.S.C. 1001 by fine or
Date	Signature	You Bernardus BRADA	. Assignor/inventor
Date:	Signature.	Marcot SCHOUTES	Assignor/Inventor
Date:	Signature	Manch KOUNES	Assignar/Inventor
Date:	Signature:		, Assignor/inventor
Date: 2009-09-03	Signature:	State Company Comments of the Comment of the Commen	Assignar/inventor
Date:	Signature	Character Constitution	Assignor/inventor
Date	Signature.	Metal VSV IS	Assignor/inventor

U.S.A. Sole/Joint

ASSIGNMENT & DECLARATION

Docket No. 2017P02274WOUS

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

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.

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

was filed on 2018-Sep-12, having an International Application No. PCT/EP2018/074558,

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.

Date:	Signature:		•	Assignor/Inventor
D. r	6 1	Ype Bernardus BRADA		A salama allumantan
Date:	Signature:	Marcel SCHOUTEN		Assignor/Inventor
Date:	Signature:		!	Assignor/Inventor
Date:	Signature:	Maurits KOENEN		Assignor/Inventor
Data.	Oignature.	Nikolaj Vasiljevitsj ZJIROECHA	5	U
Date:	Signature:	Wash Friedman J E.J JENJES B	5	Assignor/Inventor
Date: <u>Sept 19,2018</u>	Signature:	Mark Johnnes LELIEVELD		Assignor/Inventor
Planta.	Cionatura	Chuen Yu Cyrus PANG		Assignor/Inventor
Date:	Signature:	Michel VAN ES	5	WaaiAnottiinaniroi

2018

RECORDED: 03/17/2020

hereby sell, and assign, and tran having a place of business at Hi	isfer the entire gh Tech Camp	I/we acknowledge receipt, I/we as a below-named A and exclusive right, title, and interest in the following ous 5, 5656 AE, Eindhoven, the Netherlands, its succeptively "the Assignee") my/our invention for which an	j to Koninklijke Philips N.V., easora, assigns, and legal
is executed concurrently her was filed on ***, having a Un		polication No. ***	
		national Application No. PCT/EP2018/074558,	
therewith, based thereon, or claid divisions, continuations, continua-	iming priority thations-in-part,	other United States, foreign and international patent herefrom including, but not limited to, any and all pro- re-examinations, reissues, and extensions thereof, a , and interest in and to any and all patents granted o	visionals, non-provisionals nd the right to claim priority
		ice officials in the United States and in any and all for the Assignee(s), for its sole use, and that of its succe	
Upon request at the expense of proceedings including patent pro	the Assignee, osecution actio	the Assignee to enjoy the foregoing right, little, and in I/we agree to execute all papers, take all rightful dall ons and infringement actions, and do all other such a ring and maintaining patents on the foregoing invention	ns, testify in all legal cts which may be
I/We certify that I/we have the fu	ıli right to conv	rey the above rights.	
		that the above-identified application was made or aut al joint Inventor of a claimed invention in the applicati	
I hereby acknowledge that any vimprisonment of not more than t		tement made in this declaration is punishable under or both.	18 U.S.C. 1001 by fine or
Date:	Signature:	Ype Bernardus BRADA	Assignor/Inventor
Date:	Signature:	Marcel SCHOUTEN	Assignor/inventor
Date:	Signature:	,	Assignor/Inventor
Date:	Signature:	Maurits KOENEN	Assignor/Inventor
Date:	Signature:	Nikolaj Vasiljevitsj ZJIROECHA	Assignor/Inventor
Nuto:	Signature:	Mark Johannes LELIEVELD	Assignor/inventor
note: Secretary 13th	Signature:	Chuen Yu Cyrus PANG // // L. L.	Assignat/Inventor

Michel VAN ES