505244031 12/19/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CORNELIS JOHANNES ZANDSTEEG	11/09/2018
GEERT-JAN DARWINKEL	12/12/2018
LOLKE KLAAS SALVERDA	11/29/2018
RODERIK DE VRIES	11/09/2018
JEROEN KEIJER	11/12/2018

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:	16311208

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: 914-495-9521

Email: debbie.henn@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:	2016P00463WOUS
NAME OF SUBMITTER:	KATHLEEN A. ASHER
SIGNATURE:	/KATHLEEN A. ASHER/
DATE SIGNED:	12/19/2018
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Total Attachments: 5

PATENT REEL: 047813 FRAME: 0436

EPAS ID: PAT5290810

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PATENT REEL: 047813 FRAME: 0437

Date:

Signature:

Signature:

Roderik DE VRIES

Jeroen KEIJER

hereby sell, and assign, and tran having a place of business at Hi	nsfer the entire gh Tech Camp	I/we acknowledge receipt, I/we as a below-named and exclusive right, title, and interest in the follow ous 5, 5656 AE, Eindhoven, the Netherlands, its su actively "the Assignee") my/our invention for which	ing to Koninklijke Philips N.V., iccessors, assigns, and legal
☐ is executed concurrently her ☐ was filed on ***, having a Ur ☑ was filed on 2017-Jun-21, h	iited States Ap	plication No. *** national Application No. PCT/EP2017/065303,	
therewith, based thereon, or claid divisions, continuations, continu	iming priority thations-in-part,	other United States, foreign and international pate herefrom including, but not limited to, any and all p re-examinations, reissues, and extensions thereof , and interest in and to any and all patents granted	rovisionals, non-provisionals, and the right to claim priority
		ice officials in the United States and in any and all the Assignee(s), for its sole use, and that of its suc	
Upon request at the expense of proceedings including patent pro	the Assignee, osecution actic	the Assignee to enjoy the foregoing right, title, and live agree to execute all papers, take all rightful or one and infringement actions, and do all other suching and maintaining patents on the foregoing invent	aths, lestify in all legal acts which may be
I/We certify that I/we have the fu	ill right to conv	ey the above rights.	
		that the above-identified application was made or a al joint Inventor of a claimed invention in the applic	
I hereby acknowledge that any vimprisonment of not more than f		tement made in this declaration is punishable unde or both.	er 18 U.S.C. 1001 by fine or
Date: 4/11/2013	Signature:	Cornelis Johannes ZANDSTEEG	Assignor/Inventor
Date:	Signature:	\$	Assignor/Inventor
Date:	Signature:	Geert-Jan DARWINKEL	Assignor/Inventor
		Loike Kiaas SALVERDA	

PATENT REEL: 047813 FRAME: 0438

Assignor/Inventor

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:

is executed concurrently herewith	
was filed on ***, having a United States Application No. ***	
was filed on 2017-Jun-21, having an International Application No. PCT/EP2017/0653	103

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 megand that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful faise 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
Onto 17 19	Signature:	Cornelis Johannes ZANØSTEEĞ	Assignor/Inventor
nate, 1 1 ((orgnature.	Geert-Jan DARWINKEL	. waaidiiniiiiaaiiini
Date:	Signature:	**************************************	Assignor/Inventor
		Loike Kiaas SALVERDA	
Oate:	Signature:	3	Assignor/Inventor
99a. 330	St t	Roderik DE VRIES	8 a nêwa nalbusanakan
Vate?	Signature:	Jeroen KEIJER	Assignor/Inventor

PATENT REEL: 047813 FRAME: 0439

Date:

Signature:

Jersen KEIJER

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, fille, 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 2017-Jun-21, having an International Application No. PCT/EP2017/065303, 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 foreigning 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 paths, 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: Signature: Assignor/Inventor Cornçlis Johannes ZANDSTEEG Signature: Assignor/Inventor Gerrifan DARWINKEL FOR EXPOSITE VERDA Signature: Assignor/Inventor Signature: Assignor/Inventor Rodkylk DE VRIES

> PATENT REEL: 047813 FRAME: 0440

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: is executed concurrently herewith was filed on ***, having a United States Application No. *** 🔯 was filed on 2017-Jun-21, having an International Application No. PCT/EP2017/065303. 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. Date: Signature: Assignor/Inventor Cornelis Johannes ZANDSTEEG Date: Signature: Assignor/Inventor Geert-Jan DARWINKEL Date: Signature: Assignor/Inventor

Lojke Kisas SALVERDA

Roderik DE VRIES

Jeroen KEIJER

Signature:

PATENT REEL: 047813 FRAME: 0441

Assignor/Inventor

Assignor/Inventor

hereby sell, and assign, and tran having a place of business at Hig	sfer 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 succ ctively "the Assignee") my/our invention for which an	to Koninklijke Philips N.V., essors, assigns, and legal
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therewith, based thereon, or clair divisions, continuations, continua	ming priority thations-in-part,	other United States, foreign and international patent nerefrom 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 fo the Assignee(s), for its sole use, and that of its succe	
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.			
	-	that the above-identified application was made or aut al joint inventor of a claimed invention in the applicati	
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
Date:	Signature:	Cornelis Johannes ZANDSTEEG	Assignor/Inventor
Date:	Signature:	Geert-Jan DARWINKEL	Assignor/Inventor
Date:	Signature:	Lolke Kinas SALVERDA	Assignor/Inventor
Date: 17 - 11 - 2010	Signature:	Roderik DE VRIES Jeroen KEIJER	Assignor/Inventor

PATENT REEL: 047813 FRAME: 0442