PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6157020

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ORHAN KAHYA	01/02/2019
FREDERIK JAN DE BRUIJN	01/02/2019
BINYAM GEBREKIDAN GEBRE	01/07/2019
KARL CATHARINA VAN BREE	05/23/2019
VICTOR MARTINUS GERARDUS VAN ACHT	01/07/2019
YONG JIANG	01/01/2019
ADITYA MEHENDALE	06/04/2019
HAROLD AGNES WILHELMUS SCHMEITZ	01/07/2019
DMITRY NIKOLAYEVICH ZNAMENSKIY	06/19/2019
ANTONIUS JOHANNES JOSEPH WISMANS	01/30/2019
SERGIO CONSOLI	01/04/2019
PETRA BIJL	01/16/2019
ARNOLDUS JOHANNES MARTINUS JOZEPH RAS	01/03/2019
YAO HEAN CHIAH	01/15/2019

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:	16485192

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.

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PATENT REEL: 052959 FRAME: 0163

506110298

Correspondent Name: PHILIPS INTELLECTUAL PROPERTY & STANDARD

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ATTORNEY DOCKET NUMBER:	2018P01148WOUS01
NAME OF SUBMITTER:	DOUGLAS B. MCKNIGHT
SIGNATURE:	/Douglas B. McKnight/
DATE SIGNED:	06/17/2020

Total Attachments: 14

source=2018P01148WO01US_Signed_Dec_Assignemnt_EXCEPTMohankumar#page1.tif source=2018P01148WO01US_Signed_Dec_Assignemnt_EXCEPTMohankumar#page2.tif source=2018P01148WO01US_Signed_Dec_Assignemnt_EXCEPTMohankumar#page3.tif source=2018P01148WO01US_Signed_Dec_Assignemnt_EXCEPTMohankumar#page4.tif source=2018P01148WO01US_Signed_Dec_Assignemnt_EXCEPTMohankumar#page5.tif source=2018P01148WO01US_Signed_Dec_Assignemnt_EXCEPTMohankumar#page6.tif source=2018P01148WO01US_Signed_Dec_Assignemnt_EXCEPTMohankumar#page7.tif source=2018P01148WO01US_Signed_Dec_Assignemnt_EXCEPTMohankumar#page8.tif source=2018P01148WO01US_Signed_Dec_Assignemnt_EXCEPTMohankumar#page9.tif source=2018P01148WO01US_Signed_Dec_Assignemnt_EXCEPTMohankumar#page10.tif source=2018P01148WO01US_Signed_Dec_Assignemnt_EXCEPTMohankumar#page11.tif source=2018P01148WO01US_Signed_Dec_Assignemnt_EXCEPTMohankumar#page12.tif source=2018P01148WO01US_Signed_Dec_Assignemnt_EXCEPTMohankumar#page13.tif source=2018P01148WO01US_Signed_Dec_Assignemnt_EXCEPTMohankumar#page13.tif source=2018P01148WO01US_Signed_Dec_Assignemnt_EXCEPTMohankumar#page13.tif source=2018P01148WO01US_Signed_Dec_Assignemnt_EXCEPTMohankumar#page13.tif source=2018P01148WO01US_Signed_Dec_Assignemnt_EXCEPTMohankumar#page14.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 executed concurrently herewith
was filed on ***, having a United States Application No. ***

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.

was filed on 2018-Dec-21, having an International Application No. PCT/EP2018/086462,

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: 02-01-2	이를 Signature:	0/Kaly	Assignor/Inventor
NO 60 6 0 1	minimin and in a second	Orhan KAHYA	. ia o giro mino ana
Date:	Signature:		Assignor/Inventor
	•	Frederik Jan DE BRUUN	-
Date:	Signature:	3,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Assignor/Inventor
		Binyam Gebrekidan GEBRE	
Date:	Signature:		Assignor/Inventor
		Karl Catharina VAN BREE	
Date:	Signature:		Assignor/Inventor
	 0	Victor Martinus Gerardus VAN ACHT	
Date:	Signature:		Assignor/Inventor
69b. 4	,00s, H	Yong JIANG	34 3 MK 4
Date:	Signature:	No. of the second of the secon	, Assignor/Inventor
Make.	Cion otemo	Mohankumar VALIYAMBATH KRISHNAN	A nairea nellus camban
Date:	Signature:	A SIA B STORTSCHIEN A 9 X7	, Assignor/Inventor
Pata.	Signature:	Aditya MEHENDALE	Assignor/Inventor
Date:	Oignature.	Harold Agnes Wilhelmus SCHMEITZ	, wasifingumiaemor
Date:	Signature:	9	, Assignor/inventor
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hereby sell, and assign, and transf having a place of business at High	on, of which I/we acknowledge receipt, I/we as a beer the entire and exclusive right, title, and interest in Tech Campus 5, 5656 AE, Eindhoven, the Nether innees (collectively "the Assignee") my/our invention	in the following to Koninkiijke Philips N.V. tands, its successors, assigns, and legal
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and all rights in and to said applica	tion, and all other United States, foreign and interr	national patent applications associated
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•	e Patent Office officials in the United States and in d, solely to the Assignee(s), for its sole use, and the	*

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Date:		Signature:		Assignor/Inventor
Date:	24112014	Signature:	Orhan KAHYA Lephrik Sin Di. BRUIJN	Assignor/Inventor
Date:		Signature:	x	Assignor/Inventor
Date:		Signature:	Binyam Gebrekidan GEBRE Karl Catharina VAN BREE	Assignor/Inventor
Date:		Signature:		Assignor/Inventor
Date:		Signature:	Victor Martinus Gerardus VAN ACHT Yong JIANG	Assignor/inventor
Date:		Signature:	Mohankumar VALIYAMBATH KRISHNAN	Assignor/Inventor
Date:		Signature:		Assignor/Inventor
Date:		Signature:	Aditya MEHENDALE	Assignor/inventor
Date:		Signature:	Harold Agnes Wilhelmus SCHMEITZ	- Assignor/Inventor
			Dmitry Nikolayevich ZNAMENSKIY	

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 2018-Dec-21, having an International Application No. PCT/EP2018/086462,

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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Date:	Signature:		Assignor/inventor
	4.3.	Orhan KAHYA	110
Date:	Signature:		Assignor/Inventor
Date: <u>07/01/20/</u> \$	Signature:	Frederik Jas DE BRUIJN 2300, Binyam Gebrekidan GEBRE	Assignor/inventor
Date:	Signature:	ASSECT USES NO CONCERNOSION CONTRACTOR	Assignor/Inventor
The state of the s	a Burana.	Karl Catherina VAN BREE	
Date:	Signature:	, s	Assignor/Inventor
		Victor Martinus Gerardus VAN ACHT	
Date:	Signature:		Assignor/Inventor
		Yong MANG	
Date:	Signature:		Assignor/Inventor
		Mohankumar VALIYAMBATH KRISHNAN	
Date:	Signature:	· · · · · · · · · · · · · · · · · · ·	Assignor/Inventor
		Aditya MEHENDALE	
Date:	Signature:		Assignor/Inventor
		Harold Agnes Wilhelmus SCHMEITZ	

Date: _____

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Date: _____

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Signature:

hereby sell, and assign, and train having a place of business at Hi	nsfer the entir igh Tech Cam	h I/we acknowledge receipt, I/we as a below-named e and exclusive right, title, and interest in the follow pus 5, 5656 AE, Eindhoven, the Netherlands, its su ectively "the Assignee") my/our invention for which	ing to Koninklijke Philips N.V., iccessors, assigns, and legal
is executed concurrently her	rewith		
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was filed on 2018-Dec-21, h	naving an Inter	mational Application No. PCT/EP2018/086462,	
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I/We certify that I/we have the fu	all right to con-	vey the above rights.	
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I hereby acknowledge that any viring imprisonment of not more than f		atement made in this declaration is punishable unde or both.	r 18 U.S.C. 1001 by fine or
Date:	Signature:		Assignor/Inventor
	Signature:	Orhan KAHYA	A co co i co uo co milituro e co co de co uo
Date:	បម្រើនេយនេះ	Frederik Jan DE BRUIJN	Assignor/Inventor
Date:	Signature:	Binyage Cotychiden GEBRE	Assignor/Inventor
Date: <u>23 05-20</u> 19	Signature:	- (Assignor/Inventor
Date:	Signature:	Karl Catharina VAN BREE	Assignor/Inventor
Date:	Signature:	Victor Martinus Gerardus VAN ACHT	- Assignor/Inventor
	•	Yong JIANG	•
Date:	Signature:	Makankanan NATIVAREE TEE VERCINAR	Assignor/Inventor

Aditya MEHENDALE

Harold Agnes Wilhelmus SCHMEITZ

Dmitry Nikolayevich ZNAMENSKIY

PATENT REEL: 052959 FRAME: 0168

Assignor/Inventor

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,	11/
hereby sell, and assign, and transfer the entire and exclusive right, title, and interest in the following to Koninklijke Philips N	i. V. s
having a place of business at High Tech Campus 5, 5656 AE, Eindhoven, the Netherlands, its successors, assigns, and leg	jai
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. ***
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Dates		Signature:	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Assignor/Inventor
			Orhan KAHYA	
Date:				Assignor/Inventor
			Frederik Jan DE BRUIJN	8 :
Date: _		Signature:	73 2 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5	Assignor/Inventor
29. . 6 20			Binyam Gebrekidan GEBRE	Assignor/Inventor
nate:		Signature:	Variation VAN SSEES	LOSSINGING CONTRACT
Date: 🦒	anuuz 7,2014	Signature:	Karl Calbarian VAN 1888 K. Victor Martinus Gerardus VAN ACHT	Assignor/Inventor
Date:		Signature:	3	Assignor/Inventor
		6	Yong JIANG	Analum nollmanetes
Date: _		Signature:	Mohankumar VALIVAMBATH KRISHNAN	Assignor/Inventor
∩ate:		Signature:	MORRHHUMBE, A WE'R S WOOD WAR AND STORES WAS	Assignor/Inventor
o-xeo		- Tar	Aditya MEHENDALE	Ť
Date:		Signature:		Assignor/Inventor
			Harold Agnes Wilhelmus SCHMEITZ	a 1 10 1
Date:		Signature:	\$ NAIL A S. NAIL A STREET 327	Assignor/Inventor
			Dmitry Nikolayevich ZNAMENSKIY	

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s) or Inv hereby sell, and assign, and transfer the entire and exclusive right, title, and interest in the following to Koninklijke F having a place of business at High Tech Campus 5, 5656 AE, Eindhoven, the Netherlands, its successors, assigns, representatives, including any nominees (collectively "the Assignee") my/our invention for which an application:	Philips N.V.
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Date:	Signature:		Assignor/Inventor
	**	Orhan KAHYA	**************************************
Date:	Signature:		Assignor/Inventor
Date:	Signature:	Frederik Jan DE BRUIJN	Assignor/Inventor
8,046.0.	oigname.	Binyam Gebrekidan GEBRE	Masifilaniniaciim
Date:	Signature:	*	Assignor/Inventor
Out		Karl Catharina VAN BREE	
Date:	Signature:	Victor Martinus Gerardus VAN ACHT	Assignor/Inventor
Date:	Signature:		Assignor/Inventor
	•	Yong JIANG Yay	•
Date: 01 /01 / 2019	Signature:	· · · · · · · · · · · · · · · · · · ·	Assignor/Inventor
Date:	Cimmatura	Mohankumar WiliyAMBATH KRISHNAN	& markers marks and a marker was
nata:	Signature:	Aditya MEHENDALE	Assignor/Inventor
Date:	Signature:	150803 80 1712381831 1371 8822	Assignor/Inventor
	39	Harold Agnes Wilhelmus SCHMEITZ	•
Date:	Signature:	,	Assignor/Inventor
		Dmitry Nikolayevich ZNAMENSKIY	

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Date:	Signature:	Orhan KAHYA	, Assignor/Inventor
Date:	Signature:		Assignor/Inventor
Date:	Signature:	Frederik Jan DE BRUIJN	, Assignor/Inventor
Date:	Signature:	Binyam Gebrekidan GEBRE	Assignor/inventor
Date:	Signature:	Karl Catharina VAN BREE	Assignor/inventor
Date:	Signature:	Victor Martinus Gerardus VAN ACHT	Annimanisharan
Date:	Signature:	Yong JIANG	Assignor/inventor
_	•	Mohankumar VALIYAMBAJH KRISHNAN	_
Date: <u>Ob-June-2019</u>	Signature:	Aditya MEHENDALE	Assignor/inventor
Date:	Signature:		, Assignor/inventor

Harold Agnes Wilhelmus SCHMEITZ

Dmitry Nikolayevich ZNAMENSKIY

Signature:

Date:

PATENT REEL: 052959 FRAME: 0171

Assignor/Inventor

U.S.A. SaleUpint ASSIGNMENT & DECLARATION Docket No. 2018P01148WO 81US

For good and valuable consideration, of which livre acknowledge receipt, livre as a below named Assignor(s) or Inventor, hereby sell, and assign, and transfer the entire and evolusive light, little, and interest in the following to Knoinklight Philips N.V., hereby sell, and assign, and refer and place of business at High Tech Compus 5, 5565 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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Date:	Signature:	Frederik Jan BE BRUUN	Assignor/Inventor
Date:	Signature:	Binyan Gebrekidan GEBRE	Assignor/Inventor
Data.	Signature:	Karl Carboring VAN BREE	Assignor/Inventor
Date:	Signature:	Victor Martinus Gerardus VAN ACRT	Assignar/inventor
Date:	Signature:	Your MANG	Assignor/Inventor
Date:	Signature:	Mehankurasi VALIVAMBATII KRISHNAN	Assignor/Inventor
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Date: Fjan 2019	Signature:	Aditys MEHENDALE Barold Agnes Withebnow CBMETTZ	Assignor/Inventor
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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.\ having a place of business at High Tech Campus 5, 5656 AE, Eindhoven, the Netherlands, its successors, assigns, and lega 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 2018-Dec-21, having an International Application No. PCT/EP2018/086462,
and all rights in and to said application, and all other United States, foreign and international patent applications associated

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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.

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RECORDED: 06/17/2020