## 505556002 07/03/2019

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
BIN ZHANG	01/16/2018
CHUANYONG BAI	05/02/2018
SHUSHEN LIN	07/02/2019
ANDRIY ANDREYEV	01/09/2018
ZHIQIANG HU	01/17/2018

#### **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:	16474576

## **CORRESPONDENCE DATA**

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ATTORNEY DOCKET NUMBER:	2016P01354WOUS	
NAME OF SUBMITTER:	DAVID LAWRENCE SCHREIBER	
SIGNATURE:	/David Lawrence Schreiber/	
DATE SIGNED:	07/03/2019	

Total Attachments: 5

PATENT REEL: 049659 FRAME: 0881

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> PATENT REEL: 049659 FRAME: 0882

Date

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Mis executed on	ncurrently herewith		
	by me/us on		
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		onal Application No. PCT/EP2018/	
and all rights in a	nd to said application, and all of	her United States, foreign and intern.	ational patent applications associated
therewith, based (	thereon, or claiming priority ther	refrom including, but not limited to,	any and all provisionals, non-
·-		ns-in-part, re-examinations, reissues, e right, title, and interest in and to an	and extensions thereof, and the right to y and all patents granted on these
	s Patent when granted, solely to	officials in the United States and in a the Assignee(s), for its sole use, and	any and all foreign countries to issue that of its successors, assigns, and
extent. Upon req legal proceedings	uest at the expense of the Assign including patent prosecution ac ble, or convenient for securing a	ne Assignee to enjoy the foregoing rinee, I/we agree to execute all papers, tions and infringement actions, and on maintaining patents on the forego	take all rightful oaths, testify in all lo all other such acts which may be
I/We certify that	I/we have the full right to conve	y the above rights.	
mn. 16,20	18 (sign name here)	2ng	
Date	(print name here)	Win ZHANG	, Assignor
Date	(print name here)	Chuanyong BAI	, Assignor
Date	(print name here)	Shushen LIN	, Assignor
Date	(nrint name here)	Andriv ANDREYEV	Assignor

Page 1 of 1

Zhiqiang HU

(print name here)

, Assignor

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	ight, title, and interest in the followin AE, Eindhoven, the Netherlands, its wely "the Assignee") my/our invention	
is executed conc	currently herewith		
was executed by	me/us on		
was filed on	, ha	ving a Serial No	
was filed on. 03	Jan 2018, having an Internati	onal Application No. PCT/EP2018/	050111,
therewith, based the provisionals divisio	ereon, or claiming priority them	her United States, foreign and internate refrom including, but not limited to, ans-in-part, re-examinations, reissues, e right, title, and interest in and to any	ny and all provisionals, non- and extensions thereof, and the right to
	Patent when granted, solely to	officials in the United States and in a the Assignee(s), for its sole use, and	·
extent. Upon reque legal proceedings in	st at the expense of the Assignacluding patent prosecution act, or convenient for securing a	the Assignee to enjoy the foregoing rinee, I/we agree to execute all papers, tions and infringement actions, and dead maintaining patents on the foregoing	take all rightful oaths, testify in all oall other such acts which may be
I/We certify that I/v	ve have the full right to conve	y the above rights.	
	(sign name here)		
Date	(print name here)	Bin ZHANG	, Assignor
May 02, 2018		cm 125	
Date	(print name here)	Chuanyong BAI	, Assignor
Date	(print name here)	Shushen LIN	, Assignor
Date	(print name here)	Andriy ANDREYEV	, Assignor
Date	(print name here)	Zhiqiang HU	, 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,

•		•	g to Koninklijke Philips N.V., having
		AE, Eindhoven, the Netherlands, its	
representatives, inclu	iding any nominees (collective	vely "the Assignee") my/our invention	n for which an application:
is executed concu	irrently herewith		
	me/us on		
		ving a Serial No	
		ional Application No. PCT/EP2018/0	
and all rights in and	to said application, and all at	her United States, foreign and interna	itional natant applications associated
_		refrom including, but not limited to, a	·
		<del>-</del>	and extensions thereof, and the right to
_		e right, title, and interest in and to any	<del>-</del>
applications.	s, and the chine and exercisiv	e right, title, and interest in and to any	direction granted on these
appiroutions.			
I/We authorize and re	equest that the Patent Office	officials in the United States and in a	ny and all foreign countries to issue
any and all Letters Pa	atent 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	y/our cooperation to enable t	he Assignee to enjoy the foregoing rig	ght, title, and interest to the fullest
extent. Upon reques	t at the expense of the Assign	nee, I/we agree to execute all papers,	take all rightful oaths, testify in all
legal proceedings inc	cluding patent prosecution ac	tions and infringement actions, and d	o all other such acts which may be
necessary, desirable,	or convenient for securing a	nd maintaining patents on the foregoi	ng invention or for perfecting title
thereto in the Assign	ee.		
I/We certify that I/wo	e have the full right to conve	y the above rights.	
	(		
D /	(sign name here)	Dis ZHANG	
Date	(print name here)	Bin ZHANG	, Assignor
Date	(print name here)	Chuanyong BAI	, Assignor
July 2, 2019		/Shushen Lin/	
Date	(print name here)	Shushen LIN	, Assignor
Date	(print name here)	Andriy ANDREYEV	, Assignor
Date	(print name here)	Zhiqiang HU	, Assignor

Page 1 of 1

PATENT REEL: 049659 FRAME: 0885

For good and valuable	consideration, of which I/	we acknowledge receipt, I/we as a	below-named Assignor(s), hereby sell,
and assign, and transfe	er the entire and exclusive r	ight, title, and interest in the follo	wing to Koninklijke Philips N.V., having
a place of business at l	High Tech Campus 5,5656	AE, Eindhoven, the Netherlands,	its successors, assigns, and legal
representatives, includ	ling any nominees (collecti	vely "the Assignee") my/our inver	ttion for which an application:
is executed concur	rently herewith		
*****	e/us on	011011011011011011011011011011011011	
was filed on	, ba	ving a Serial No	····
was filed on. 03 Ja	n 2018, having an Internat	ional Application No. PCT/EP20.	18/050111,
and all rights in and to	said application, and all of	her United States, foreign and inte	ernational patent applications associated
therewith, based thereo	on, or claiming priority the	refrom including, but not limited t	o, any and all provisionals, non-
provisionals divisions,	continuations, continuatio	ns-in-part, re-examinations, reissu	es, and extensions thereof, and the right to
claim priority thereto,	and the entire and exclusiv	e right, title, and interest in and to	any and all patents granted on these
applications.			
I/We authorize and rec	quest that the Patent Office	officials in the United States and	in any and all foreign countries to issue
any and all Letters Pat	ent when granted, solely to	the Assignee(s), for its sole use, a	and that of its successors, assigns, and
legal representatives.			
I/We will provide my/	our cooneration to enable f	he Assignee to enjoy the foregoing	g right, title, and interest to the fullest
			rs, take all rightful oaths, testify in all
			id do all other such acts which may be
			egoing invention or for perfecting title
thereto in the Assignee		<b>*</b>	
I/We certify that I/we l	have the full right to conve	y the above rights.	
	(sign name here)		
Date	(print name here)		, Assignor
A.S. W.C.V.	(min name now)	About Grove Co. Co.	, zeasegaor
Date	(print name here)	Chuanyong BAI	, Assignor
***			
Date () -) on - 10 (8	(print name here)	Shushen LIN	, Assignor
Date	(print name here)	Asdriy ANDREVEV	, Assignor
 Date	(nrint name here)	Zhioiano HU	Accionar

Page 1 of 1

**REEL: 049659 FRAME: 0886** 

		ight, title, and interest in the followix	ig to Koninklijke Philips N.V., having
		AE, Eindhoven, the Netherlands, its vely "the Assignee") my/our invention	
is executed concurre			
	us on		
		ving a Serial No	
was filed on. 03 Jan	a 2018, having an Internati	ional Application No. PCT/EP2018/	050111,
and all rights in and to s	said application, and all ot	her United States, foreign and interna	ational patent applications associated
therewith, based thereon	n, or claiming priority the	refrom including, but not limited to,	my and all provisionals, non-
provisionals divisions, o	continuations, continuation	ns-in-part, re-examinations, reissues,	and extensions thereof, and the right to
claim priority thereto, a applications.	nd the entire and exclusiv	e right, title, and interest in and to an	y and all patents granted on these
		officials in the United States and in a	
any and all Letters Pate legal representatives.	nt when granted, solely to	the Assignee(s), for its sole use, and	that of its successors, assigns, and
extent. Upon request at legal proceedings inclu-	t the expense of the Assign ding patent prosecution ac convenient for securing a	he Assignee to enjoy the foregoing rince, I'we agree to execute all papers, tions and infringement actions, and cand maintaining patents on the forego	take all rightful oaths, testify in all to all other such acts which may be
I/We certify that I/we h	ave the full right to conve	y the above rights.	
	(sign name here)		
Date	(print name here)	Bin ZHANG	, Assignor
Date	(print name here)	Chusnyong BAI	, Assignor
Date	(print name here)	Shushen LIN	, Assignor
Date	(print name here)	Andriy ANDREYEV	, Assignor
Jan 17, 2018	**	- <u>2444 ag Ka</u>	· · · · · · · · · · · · · · · · · · ·
Date	(print name here)	Zhiqiang HU	, Assignor

Page 1 of 1

**PATENT REEL: 049659 FRAME: 0887**