### 503383341 07/08/2015

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3429963

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
SETH COE-SULLIVAN	12/20/2007
MARSHALL COX	12/20/2007
CAROLINE J. ROUSH	06/20/2007
JONATHAN S. STECKEL	12/20/2007

### **RECEIVING PARTY DATA**

Name:	QD VISION, INC.
Street Address:	29 HARTWELL AVENUE
City:	LEXINGTON
State/Country:	MASSACHUSETTS
Postal Code:	02421

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	14732772

### **CORRESPONDENCE DATA**

**Fax Number:** (781)372-3281

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:** 781-652-7400

**Email:** qdvip@qdvision.com

Correspondent Name: MARTHA ANN FINNEGAN
Address Line 1: 29 HARTWELL AVENUE

Address Line 4: LEXINGTON, MASSACHUSETTS 02421

ATTORNEY DOCKET NUMBER:	QDV053/054USC1
NAME OF SUBMITTER:	HEATHER TANASHIAN
SIGNATURE:	/Heather Tanashian/
DATE SIGNED:	07/08/2015

#### **Total Attachments: 16**

source=QDV053054PCT\_Assignment\_SCS\_DR\_IK\_VB\_MC\_CR\_PK\_JS#page1.tif source=QDV053054PCT\_Assignment\_SCS\_DR\_IK\_VB\_MC\_CR\_PK\_JS#page2.tif source=QDV053054PCT\_Assignment\_SCS\_DR\_IK\_VB\_MC\_CR\_PK\_JS#page3.tif

PATENT 503383341 REEL: 036026 FRAME: 0349

source=QDV053054PCT\_Assignment\_SCS\_DR\_IK\_VB\_MC\_CR\_PK\_JS#page4.tif
source=QDV053054PCT\_Assignment\_SCS\_DR\_IK\_VB\_MC\_CR\_PK\_JS#page5.tif
source=QDV053054PCT\_Assignment\_SCS\_DR\_IK\_VB\_MC\_CR\_PK\_JS#page6.tif
source=QDV053054PCT\_Assignment\_SCS\_DR\_IK\_VB\_MC\_CR\_PK\_JS#page7.tif
source=QDV053054PCT\_Assignment\_SCS\_DR\_IK\_VB\_MC\_CR\_PK\_JS#page8.tif
source=QDV053054PCT\_Assignment\_SCS\_DR\_IK\_VB\_MC\_CR\_PK\_JS#page9.tif
source=QDV053054PCT\_Assignment\_SCS\_DR\_IK\_VB\_MC\_CR\_PK\_JS#page10.tif
source=QDV053054PCT\_Assignment\_SCS\_DR\_IK\_VB\_MC\_CR\_PK\_JS#page11.tif
source=QDV053054PCT\_Assignment\_SCS\_DR\_IK\_VB\_MC\_CR\_PK\_JS#page12.tif
source=QDV053054PCT\_Assignment\_SCS\_DR\_IK\_VB\_MC\_CR\_PK\_JS#page13.tif
source=QDV053054PCT\_Assignment\_SCS\_DR\_IK\_VB\_MC\_CR\_PK\_JS#page15.tif
source=QDV053054PCT\_Assignment\_SCS\_DR\_IK\_VB\_MC\_CR\_PK\_JS#page15.tif
source=QDV053054PCT\_Assignment\_SCS\_DR\_IK\_VB\_MC\_CR\_PK\_JS#page15.tif
source=QDV053054PCT\_Assignment\_SCS\_DR\_IK\_VB\_MC\_CR\_PK\_JS#page15.tif

PATENT REEL: 036026 FRAME: 0350

#### ASSIGNMENT

(Worldwide Rights)

WHEREAS We, the undersigned (herein after referred to as "Assignors" or "We"), are named as inventors in the patent application entitled:

#### LIGHT-EMITTING DEVICES AND DISPLAYS WITH IMPROVED PERFORMANCE

for which International Patent Application No. PCT/US2007/13152 was filed on 4 June 2007, and

WHEREAS, QD Vision, Inc., a corporation of Delaware (U.S.A.), whose post office address is 313 Pleasant Street, 4<sup>th</sup> Floor, Watertown, Massachusetts 02472 (hereby referred to as Assignee), is desirous of securing the entire right, title, and interest throughout the world in and to the inventions and improvements which are the subject of the above identified application;

NOW THEREFORE, be it known that for good and valuable consideration, the receipt and sufficiency of which from Assignee is hereby acknowledged, We, as Assignors, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, the entire right, title, and interest throughout the world in and to the inventions and improvements which are the subject of said application, this assignment including said application, all utility applications claiming priority from said application, divisions, continuations-in-part, and continuations of the foregoing, any and all Letters Patent of the United States which may be granted for any of said inventions and improvements, any and all reissues thereof, any and all foreign patents, utility models, and design registrations granted for any of said inventions and improvements in any foreign country, any and all extensions, renewals, and reissues thereof, all rights to claim priority based on the filing date of said application, including the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other statutes and treaties of like purpose; and We authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models and design registrations and like rights of exclusion and for inventor's certificates for said inventions and improvements; and We hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

**AND, WE HEREBY** covenant that We have the full right to convey the interest assigned by this Assignment, and We have not executed and will not execute any agreement in conflict with this Assignment;

AND, WE HEREBY further covenant and agree for ourselves and our respective heirs, legal representatives and assigns that We will, without further compensation, perform such lawful acts as Assignee may reasonably request to effectuate fully this assignment, including, but not limited to, communicating with Assignee, its successors and assigns, any facts known to us respecting said inventions and improvements, testifying in any legal proceeding, signing all lawful papers when called upon to do so, executing and delivering any and all papers that may be necessary or desirable to perfect the title to said inventions and improvements in said Assignee, its successors and assigns, executing said application and all further applications, making all rightful oaths and generally performing other lawful acts reasonably requested by Assignee, its successors and assigns, to obtain and

Page 1 of 4

enforce proper patent and other rights in and to said inventions and improvements in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

## IN WITNESS WHEREOF, I hereto set my hand:

FULL NAME OF FIRST ASSIGNOR: SETH A. COE-SULLIVAN
Address: 60 Harriett Road, Belmont, MA 02478
Signature:
Date: 12/20/67

# **IN WITNESS WHEREOF**, I hereto set my hand:

FULL NAME OF SECOND ASSIGNOR: DORAI RAMPRASAD
Address: 316 N. 41st Street, Allentown, PA 18104
Signature:
Date:

### IN WITNESS WHEREOF, I hereto set my hand:

FULL NAME OF THIRD ASSIGNOR: IOANNIS KYMISSIS
Address: 526 W113th Street, #43, New York, NY 10023
Signature:
Date:

FULL NAME OF FOURTH ASSIGNOR: VLADIMIR BULOVIC
Address: 16 Lillian Road, Lexington, MA 02420
Signature:
Date:
IN WITNESS WHEDEOF I housts get my how d.
IN WITNESS WHEREOF, I hereto set my hand:
FULL NAME OF FIFTH ASSIGNOR: MARSHALL COX
Address: -13-Allen Street, Cambridge, MA 02140- 41 Marion Street, 3-2 fl. Melfert, MY OLISS
Signature:
Date: $11/10/07$
W  + -   V /
IN WITNESS WHEREOF, I hereto set my hand:
FULL NAME OF SIXTH ASSIGNOR: CAROLINE J. ROUSH
Address: 20 Appleton Street, #2, Somerville, MA 02144
Signature: Carolin Roush
Date: 6/20/07
IN WITNESS WHEREOF, I hereto set my hand:
FULL NAME OF SEVENTH ASSIGNOR: PETER T. KAZLAS
29 PILGRIMS PATH PUL 7/20/2009
Address: 405-Dutton Street, Sudbury, MA 01776
Signature: ( ) ( as )

Date: 4/20/2009
-----------------

FULL NAME OF EIGHTH ASSIGNOR: JONATHAN S. STECKEL	
Address: 231 Brookline Street, Apt. 3L, Cambridge, MA 02139	
Signature:	
Date: 12/20/07	

### **ASSIGNMENT**

(Worldwide Rights)

WHEREAS We, the undersigned (herein after referred to as "Assignors" or "We"), are named as inventors in the patent application entitled:

### LIGHT-EMITTING DEVICES AND DISPLAYS WITH IMPROVED PERFORMANCE

for which International Patent Application No. PCT/US2007/13152 was filed on 4 June 2007, and

WHEREAS, QD Vision, Inc., a corporation of Delaware (U.S.A.), whose post office address is 313 Pleasant Street, 4<sup>th</sup> Floor, Watertown, Massachusetts 02472 (hereby referred to as Assignee), is desirous of securing the entire right, title, and interest throughout the world in and to the inventions and improvements which are the subject of the above identified application;

NOW THEREFORE, be it known that for good and valuable consideration, the receipt and sufficiency of which from Assignee is hereby acknowledged, We, as Assignors, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, the entire right, title, and interest throughout the world in and to the inventions and improvements which are the subject of said application, this assignment including said application, all utility applications claiming priority from said application, divisions, continuations-in-part, and continuations of the foregoing, any and all Letters Patent of the United States which may be granted for any of said inventions and improvements, any and all reissues thereof, any and all foreign patents, utility models, and design registrations granted for any of said inventions and improvements in any foreign country, any and all extensions, renewals, and reissues thereof, all rights to claim priority based on the filing date of said application, including the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other statutes and treaties of like purpose; and We authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models and design registrations and like rights of exclusion and for inventor's certificates for said inventions and improvements; and We hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

**AND, WE HEREBY** covenant that We have the full right to convey the interest assigned by this Assignment, and We have not executed and will not execute any agreement in conflict with this Assignment;

AND, WE HEREBY further covenant and agree for ourselves and our respective heirs, legal representatives and assigns that We will, without further compensation, perform such lawful acts as Assignee may reasonably request to effectuate fully this assignment, including, but not limited to, communicating with Assignee, its successors and assigns, any facts known to us respecting said inventions and improvements, testifying in any legal proceeding, signing all lawful papers when called upon to do so, executing and delivering any and all papers that may be necessary or desirable to perfect the title to said inventions and improvements in said Assignee, its successors and assigns, executing said application and all further applications, making all rightful oaths and generally performing other lawful acts reasonably requested by Assignee, its successors and assigns, to obtain and

Page 1 of 4

enforce proper patent and other rights in and to said inventions and improvements in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

# **IN WITNESS WHEREOF**, I hereto set my hand:

FULL NAME OF FIRST ASSIGNOR: SETH A. COE-SULLIVAN
Address: 60 Harriett Road, Belmont, MA 02478
Signature:
Date:

## **IN WITNESS WHEREOF**, I hereto set my hand:

FULL NAME OF SECOND ASSIGNOR: DORAL	RAMPRASAD
Address: 316 N. 41st Street, Allentown, PA 18104	#137, 10635 GRAMERCY PLACE COLUMBIA MD 21044
Signature: Dora' Rongais of  Date: 6/15/2009	

### IN WITNESS WHEREOF, I hereto set my hand:

FULL NAME OF THIRD ASSIGNOR: IOANNIS KYMISSIS
Address: 526 W113th Street, #43, New York, NY 10023
Signature:
Date:

FULL NAME OF FOURTH ASSIGNOR: VLADIMIR BULOVIC
Address: 16 Lillian Road, Lexington, MA 02420
7
Signature:
Date:
IN WITNESS WHEREOF, I hereto set my hand:
FULL NAME OF FIFTH ASSIGNOR: MARSHALL COX
Address: 13 Allen Street, Cambridge, MA 02140
Signature:
Date:
IN WITNESS WHEREOF, I hereto set my hand:
FULL NAME OF SIXTH ASSIGNOR: CAROLINE J. ROUSH
Address: 20 Appleton Street, #2, Somerville, MA 02144
Signature:
Date:
IN WITNESS WHEREOF, I hereto set my hand:
FULL NAME OF SEVENTH ASSIGNOR: PETER T. KAZLAS
Address: 405 Dutton Street, Sudbury, MA 01776
Signature:

Date:	
IN WITNESS WHEREOF, I hereto set my hand:	
FULL NAME OF EIGHTH ASSIGNOR: JONATHAN S. STECKEL	
Address: 231 Brookline Street, Apt. 3L, Cambridge, MA 02139	
Signature:	
Date:	

#### **ASSIGNMENT**

(Worldwide Rights)

WHEREAS We, the undersigned (herein after referred to as "Assignors" or "We"), are named as inventors in the patent application entitled:

## LIGHT-EMITTING DEVICES AND DISPLAYS WITH IMPROVED PERFORMANCE

for which International Patent Application No. PCT/US2007/13152 was filed on 4 June 2007, and

WHEREAS, QD Vision, Inc., a corporation of Delaware (U.S.A.), whose post office address is 313 Pleasant Street, 4<sup>th</sup> Floor, Watertown, Massachusetts 02472 (hereby referred to as Assignee), is desirous of securing the entire right, title, and interest throughout the world in and to the inventions and improvements which are the subject of the above identified application;

NOW THEREFORE, be it known that for good and valuable consideration, the receipt and sufficiency of which from Assignee is hereby acknowledged, We, as Assignors, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, the entire right, title, and interest throughout the world in and to the inventions and improvements which are the subject of said application, this assignment including said application, all utility applications claiming priority from said application, divisions, continuations-in-part, and continuations of the foregoing, any and all Letters Patent of the United States which may be granted for any of said inventions and improvements, any and all reissues thereof, any and all foreign patents, utility models, and design registrations granted for any of said inventions and improvements in any foreign country, any and all extensions, renewals, and reissues thereof, all rights to claim priority based on the filing date of said application, including the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other statutes and treaties of like purpose; and We authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models and design registrations and like rights of exclusion and for inventor's certificates for said inventions and improvements; and We hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, WE HEREBY covenant that We have the full right to convey the interest assigned by this Assignment, and We have not executed and will not execute any agreement in conflict with this Assignment;

AND, WE HEREBY further covenant and agree for ourselves and our respective heirs, legal representatives and assigns that We will, without further compensation, perform such lawful acts as Assignee may reasonably request to effectuate fully this assignment, including, but not limited to, communicating with Assignee, its successors and assigns, any facts known to us respecting said inventions and improvements, testifying in any legal proceeding, signing all lawful papers when called upon to do so, executing and delivering any and all papers that may be necessary or desirable to perfect the title to said inventions and improvements in said Assignee, its successors and assigns, executing said application and all further applications, making all rightful oaths and generally performing other lawful acts reasonably requested by Assignee, its successors and assigns, to obtain and

Page 1 of 4

PATENT REEL: 036026 FRAME: 0359

## Docket No. QDV053054\_PCT

enforce proper patent and other rights in and to said inventions and improvements in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

IN WITNESS WHEREOF, I hereto set my hand:

FULL NAME OF FIRST ASSIGNOR: SETH A. COE-SULLIVAN	
Address: 60 Harriett Road, Belmont, MA 02478	.,,
Signature:	
Date:	

IN WITNESS WHEREOF, I hereto set my hand:

FULL NAME OF SECOND ASSIGNOR: DORAI RAMPRASAD	
Address: 316 N. 41st Street, Allentown, PA 18104	
Signature:	
Date:	

IN WITNESS WHEREOF, I hereto set my hand:

FULL NAME OF THIRD ASSIGNOR: IOANNIS KYMIS	SSIS
Address: 526 W113th Street, #43, New York, NY 10023	
Signature:	ı
Date: 6/22/09	

IN WITNESS WHEREOF, I hereto set my hand:

Page 2 of 4

FULL NAME OF FOURTH ASSIGNOR: VLADIMIR BULOVIC
Address: 16 Lillian Road, Lexington, MA 02420
Signature;
Date:
IN WITNESS WHEREOF, I hereto set my hand:
FULL NAME OF FIFTH ASSIGNOR: MARSHALL COX
Address: 13 Allen Street, Cambridge, MA 02140
Signature;
Date;
IN WITNESS WHEREOF, I hereto set my hand:
FULL NAME OF SIXTH ASSIGNOR: CAROLINE J. ROUSH
Address: 20 Appleton Street, #2, Somerville, MA 02144
Signature:
Date:
N WITNESS WHEREOF, I hereto set my hand:
FULL NAME OF SEVENTH ASSIGNOR: PETER T. KAZLAS
·
Address: 405 Dutton Street, Sudbury, MA 01776
Signature:

Date:	
IN WITNESS WHEREOF, I hereto set my hand:	
FULL NAME OF EIGHTH ASSIGNOR: JONATHAN S. STECKEL	
Address: 231 Brookline Street, Apt. 3L, Cambridge, MA 02139	
Signature:	
Date:	

#### ASSIGNMENT

(Worldwide Rights)

WHEREAS We, the undersigned (herein after referred to as "Assignors" or "We"), are named as inventors in the patent application entitled:

# LIGHT-EMITTING DEVICES AND DISPLAYS WITH IMPROVED PERFORMANCE

for which International Patent Application No. PCT/US2007/13152 was filed on 4 June 2007, and

WHEREAS, QD Vision, Inc., a corporation of Delaware (U.S.A.), whose post office address is 313 Pleasant Street, 4<sup>th</sup> Floor, Watertown, Massachusetts 02472 (hereby referred to as Assignee), is desirous of securing the entire right, title, and interest throughout the world in and to the inventions and improvements which are the subject of the above identified application;

NOW THEREFORE, be it known that for good and valuable consideration, the receipt and sufficiency of which from Assignee is hereby acknowledged, We, as Assignors, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, the entire right, title, and interest throughout the world in and to the inventions and improvements which are the subject of said application, this assignment including said application, all utility applications claiming priority from said application, divisions, continuations-in-part, and continuations of the foregoing, any and all Letters Patent of the United States which may be granted for any of said inventions and improvements, any and all reissues thereof, any and all foreign patents, utility models, and design registrations granted for any of said inventions and improvements in any foreign country, any and all extensions, renewals, and reissues thereof, all rights to claim priority based on the filing date of said application, including the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other statutes and treaties of like purpose; and We authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models and design registrations and like rights of exclusion and for inventor's certificates for said inventions and improvements; and We hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, WE HEREBY covenant that We have the full right to convey the interest assigned by this Assignment, and We have not executed and will not execute any agreement in conflict with this Assignment;

AND, WE HEREBY further covenant and agree for ourselves and our respective heirs, legal representatives and assigns that We will, without further compensation, perform such lawful acts as Assignee may reasonably request to effectuate fully this assignment, including, but not limited to, communicating with Assignee, its successors and assigns, any facts known to us respecting said inventions and improvements, testifying in any legal proceeding, signing all lawful papers when called upon to do so, executing and delivering any and all papers that may be necessary or desirable to perfect the title to said inventions and improvements in said Assignee, its successors and assigns, executing said application and all further applications, making all rightful oaths and generally performing other lawful acts reasonably requested by Assignee, its successors and assigns, to obtain and

Page 1 of 4

enforce proper patent and other rights in and to said inventions and improvements in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

# IN WITNESS WHEREOF, I hereto set my hand:

FULL NAME OF FIRST ASSIGNOR: SETH A. COE-SULLIVAN
Address: 60 Harriett Road, Belmont, MA 02478
Signature:
Date:

## IN WITNESS WHEREOF, I hereto set my hand:

FULL NAME OF SECOND ASSIGNOR: DORAI RAMPRASAD
Address: 316 N. 41st Street, Allentown, PA 18104
Signature:
Date:

# IN WITNESS WHEREOF, I hereto set my hand:

FULL NAME OF THIRD ASSIGNOR: IOANNIS KYMISSIS	
Address: 526 W113th Street, #43, New York, NY 10023	
Signature:	
Date:	

FULL NAME OF FOURTH ASSIGNOR: VLADIMIR BULOVIC
Address: 16 Lillian Road, Lexington, MA 02420
Address: 10 Linian Road, Lexington, MA 02420
Signature: //m/w
Date: 06/30/09
IN MITMERS WITEDFOF I havete not my hand.
IN WITNESS WHEREOF, I hereto set my hand:
FULL NAME OF FIFTH ASSIGNOR: MARSHALL COX
Address: 13 Allen Street, Cambridge, MA 02140
Signature:
Date:
TAL YAUTUMANGO YAUTUMANGO E. J. b
IN WITNESS WHEREOF, I hereto set my hand:
FULL NAME OF SIXTH ASSIGNOR: CAROLINE J. ROUSH
Address: 20 Appleton Street, #2, Somerville, MA 02144
Signature:
Date:
IN WITNESS WHEREOF, I hereto set my hand:
FULL NAME OF SEVENTH ASSIGNOR: PETER T. KAZLAS
Address: 405 Dutton Street, Sudbury, MA 01776
1 address 100 Dation Strong State 01770
Signature:
organica.

# Docket No. QDV053054\_PCT

Date:	
IN WITNESS WHEREOF, I hereto set my hand:	
FULL NAME OF EIGHTH ASSIGNOR: JONATHAN S. STECKEL	
Address: 231 Brookline Street, Apt. 3L, Cambridge, MA 02139	
Signature:	
Date:	

Page 4 of 4

PATENT REEL: 036026 FRAME: 0366