504052992 10/17/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4099656

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
EDWARD R. DOWSKI JR.	12/17/2009
PAULO E.X. SILVEIRA	12/17/2009
GEORGE C. BARNES IV	12/17/2009
VLADISLAV V. CHUMACHENKO	12/17/2009
DENNIS W. DOBBS	12/17/2009
REGIS S. FAN	12/17/2009
GREGORY E. JOHNSON	12/17/2009
MIODRAG SCEPANOVIC	01/18/2010
SATORU TACHIHARA	12/17/2009
CHRISTOPHER J. LINNEN	01/04/2010
INGA TAMAYO	12/17/2009
DONALD COMBS	12/15/2009
HOWARD E. RHODES	12/21/2009
JAMES HE	12/08/2009
JOHN J. MADER	12/16/2009
GORAN M. RAUKER	12/16/2009
KENNETH KUBALA	01/13/2010
MARK MELONI	12/07/2009
BRIAN SCHWARTZ	12/13/2009
ROBERT CORMACK	01/10/2010
MICHAEL HEPP	01/18/2010
KENNETH ASHLEY MACON	12/10/2009
GARY L. DUERKSEN	01/10/2010

RECEIVING PARTY DATA

Name:	OMNIVISION CDM OPTICS, INC.
Street Address:	4001 DISCOVERY DRIVE
Internal Address:	SUITE 130
City:	BOULDER
State/Country:	COLORADO
Postal Code:	80303

PATENT REEL: 040381 FRAME: 0143

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15236833

CORRESPONDENCE DATA

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NAME OF SUBMITTER:	PHILIP DIZEREGA
SIGNATURE:	/Philip diZerega/
DATE SIGNED:	10/17/2016

Total Attachments: 24

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> PATENT REEL: 040381 FRAME: 0144

ASSIGNMENT

WHEREAS, We, Edward R. Dowski, Jr. of Lafayette, Colorado, a citizen of the United States of America; Paulo E.X. Silveira of Boulder, Colorado, a citizen of Brazil; George C. Barnes, IV of Westminster, Colorado, a citizen of the United States of America; Vladislav V. Chumachenko of Louisville, Colorado, a citizen of Russia; Dennis W. Dobbs of Boulder, Colorado, a citizen of the United States of America; Regis S. Fan of Westminster, Colorado, a citizen of the United States of America and Switzerland; Gregory E. Johnson of Boulder, Colorado, a citizen of the United States of America; Mondrag Scepanovic of Boulder, Colorado, a citizen of Yugoslavia; Satoru Tachihara of Boulder, Colorado, a citizen of Japan; Christopher J. Linnen of Eric Colorado, a citizen of the United States of America; Inga Tamayo, of Erie, Colorado, a citizen of Estonia; Donald Combs, of Auburn, New Hampshire, a citizen of the United States of America; Howard E. Rhodes, of San Martin, California, a citizen of the United States of America: James He of San Jose, California, a citizen of the United States of America: John J. Mader of Boston, Massachusetts, a citizen of the United States of America; Goran M. Rauker of Longmont, Colorado, a citizen of the United States of America; Kenneth Kubala of Boulder, Colorado, a citizen of the United States of America; Mark Meloni of Longmont, Colorado, a citizen of the United States of America; Brian Schwartz of Boulder, Colorado, a citizen of the United States of America; Robert Cormack of Boulder, Colorado, a citizen of the United States of America; Michael Hepp of San Jose. California, a citizen of the United States of America; Kenneth Ashley Macon of Longmont, Colorado, a citizen of the United States of America; and Gary L. Duerksen of Ward, Colorado, a citizen of the United States of America (the "ASSIGNORS"), have made certain application for and/or Letters Patent, the particulars of which are set forth in Schedule A, attached hereto, or otherwise identified in Schedule A; and

WHEREAS, OmniVision CDM Optics, Inc., a corporation, duly organized under the laws of the State of Delaware and having a principal place of business at 4001 Discovery Drive, Suite 130, Boulder, Colorado 80303, is desirous of acquiring an interest in, to and under said invention, said application, and any and all Letters Patent which may

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PATENT REEL: 040381 FRAME: 0145

ASSIGNMENT

WHEREAS, We, Edward R. Dowski, Jr. of Lafayette, Colorado, a citizen of the United States of America; Paulo E.X. Silveira of Boulder, Colorado, a citizen of Brazil; George C. Barnes, IV of Westminster, Colorado, a citizen of the United States of America; Vladislav V. Chumachenko of Louisville, Colorado, a citizen of Russia; Dennis W. Dobbs of Boulder, Colorado, a citizen of the United States of America; Regis S. Fan of Westminster, Colorado, a citizen of the United States of America and Switzerland; Gregory E. Johnson of Boulder, Colorado, a citizen of the United States of America; Mondrag Scepanovic of Boulder, Colorado, a citizen of Yugoslavia; Satoru Tachibara of Boulder, Colorado, a citizen of Japan; Christopher J. Linnen of Erie Colorado, a citizen of the United States of America; Inga Tamayo, of Erie, Colorado, a citizen of Estonia; Donald Combs, of Auburn, New Hampshire, a citizen of the United States of America; Howard E. Rhodes, of San Martin, California, a citizen of the United States of America; James He of San Jose, California, a citizen of the United States of America; John J. Mader of Boston, Massachusetts, a citizen of the United States of America; Goran M. Rauker of Longmont, Colorado, a citizen of the United States of America; Kenneth Kubala of Boulder, Colorado, a citizen of the United States of America; Mark Meloni of Longmont, Colorado, a citizen of the United States of America; Brian Schwartz of Boulder, Colorado, a citizen of the United States of America; Robert Cormack of Boulder, Colorado, a citizen of the United States of America; Michael Hepp of San Jose, California, a citizen of the United States of America; Kenneth Ashley Macon of Longmont, Colorado, a citizen of the United States of America; and Gary L. Duerksen of Ward, Colorado, a citizen of the United States of America (the "ASSIGNORS"), have made certain application for and/or Letters Patent, the particulars of which are set forth in Schedule A, attached hereto, or otherwise identified in Schedule A; and

WHEREAS, OmniVision CDM Optics, Inc., a corporation, duly organized under the laws of the State of Delaware and having a principal place of business at 4001 Discovery Drive, Suite 130, Boulder, Colorado 80303, is desirous of acquiring an interest in, to and under said invention, said application, and any and all Letters Patent which may

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be granted for or upon said invention in the United States of America and all countries

foreign thereto.

NOW THEREFORE, to all whom it may concern, be it known that for good and

valuable consideration, the receipt and sufficiency of which are hereby acknowledged, we,

the ASSIGNORS, have sold, assigned and transferred, and by these presents to sell, assign

and transfer unto the said OmniVision CDM Optics, Inc., the full and exclusive right, title

and interest, throughout the world, in, to and under the following:

(a) said invention as fully set forth and described in the specification prepared, and

executed by us preparatory to obtaining Letters Patent of the United States therefor;

(b) said application;

(c) any and all refilings, divisions, continuations and continuations-in-part of said

application;

(d) any and all Letters Patent of the United States of America which may issue from

said application, refilings, divisions, continuations and continuations-in-part;

(e) any and all reissues and reexaminations of said Letters Patent of the United

States of America; (f) any and all applications for Letters Patent upon said invention which

may hereafter be filed in any and all countries foreign to the United States of America;

(g) any and all refilings, divisions and continuations of said foreign-filed

applications;

(h) all claims, causes of action and damages for past infringement, if any, of said

application;

(i) any and all Letters Patent of countries foreign to the United States of America

which may issue from the said foreign-filed applications, refilings, divisions and

continuations; and

(j) any and all extensions of, and additions to, said Letters Patent of countries

foreign to the United States of America.

We, the ASSIGNORS, further agree that upon request we will provide promptly all

pertinent facts and documents relating to said invention and said Letters Patent and legal

equivalents as may be known and accessible and will testify as to the same in any

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PATENT REEL: 040381 FRAME: 0147

12/17/49 Date	Edward R. Dowski, Jr.
Date	Paulo E.X. Silveira
Date	George C. Barnes, IV
Date	Vladislav V. Chumachenko
Date	Dennis W. Dobbs
Date	Regis S. Fan

Date	Edward R. Dowski, Jr.
(2/1<i>3/09</i> Date	Paulo E.X. Silveira
Date	George C. Barnes, IV
Date	Vladislav V. Chumachenko
Date	Dennis W. Dobbs
Date	Regis S. Fan

Date	Edward R. Dowski, Jr.
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Date	Herr Cornes, IV
 Date	Vladislav V. Chumachenko
Date	Dennis W. Dobbs
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Date	Paulo E.X. Silveira
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12/17/2009	Werl Chukunke
Date	Vladíslav V. Chumachenko
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Date	Edward R. Dowski, Jr.
Date	Paulo E.X. Silveira
Date	George C. Barnes, IV
Date	Vladislav V. Chumachenko
12/17/2009 Date	Dennis W. Dobbs
	- <u> </u>
Date	Regis S. Fan

Date	Edward R. Dowski, Jr.
Date	Paulo E.X. Silveira
Date	George C. Barnes, IV
Date	Vladislav V. Chumachenko
Date	Dennis W. Dobbs
1217-08	
Date	Regis/S. Fan

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12-17-2009 Date	Gregory E. Johnson
Date	Mondrag Scepanovic
Date	Satoru Tachihara
Date	Christopher J. Linnen
Date	Inga Tamayo
12/15/09 Date	Donald Combs
Date	Howard E. Rhodes
Date	James He
Date 16 2009	John J. Mader
12/16/2cog Date	Goran M. Rauker
Date	Kenneth Kubala

Date	Gregory E. Johnson
1/10/2010	Mondrag Scepanovic
Date	Mondrag Scepanovic
Date	Satoru Tachihara
Date	Christopher J. Linnen
Date	Inga Tamayo
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Date	Kenneth Kubala

Date

Date

Goran M. Rauker

Kenneth Kubala

Date	-	Gregory E. Johnson
Date	-	Mondrag Scepanovic
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Date	-	Donald Combs
Date		Howard E. Rhodes
Date	•	James He
Date		John J. Mader
Date		Goran M. Rauker
Date		Kenneth Kubala

12/07/09	Mh. Mel.
Date	Mark Meloni
Date	Brian Schwartz
Date	Robert Connack
Date	Michael Hepp
Date	Kenneth Ashley Macon

Gary L. Duerksen

Date

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Date	Mark Meloni
12/13/09	Basis Shows
Date	Brian Schwartz
Date	Robert Connack
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Date	Michael Hepp
Date	Kenneth Ashley Macon

Date

Gary L. Duerksen

484912	
Date	Mark Meloni
Date	Brian Schwartz
10 Jay 2010 Date	Robert Cornack Robert CoRMACK RHC
Date	Michael Hepp
Date	Kenneth Ashley Macon

Date

Gary L. Duerksen

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Date	Mark Meloni
Date	Brian Schwartz
Date	Robert Connack
	Michael Hepp
Date	Kenneth Ashley Macon

Gary L. Duerksen

Date

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Date	Mark Meloni
Date	Brian Schwartz
Date	Robert Connack
Date	Michael Hepp
12/10/09 Date	Kenneth Ashrey Macon
Date	Gary L. Duerksen

484912	
Date	Mark Meloni
Date	Brian Schwartz
Date	Robert Connack
Date	Michael Hepp
Date	Kenneth Ashley Macon
<u> </u>	Say L. Duerksen

Docket: 484912

SCHEDULE A

Application No.	Filing Date	Title
US 60/792,444	17 April 2006	Imaging system including non-homogeneous wavefront coding optics
US 60/802,047	18 May 2006	Wafer-scale miniature camera system
US 60/814,120	16 June 2006	Wafer-scale miniature camera system
US 60/832,677	21 July 2006	Wafer-scale miniature camera system
US 60/836,739	10 August 2006	Electromagnetic energy detection system including buried optics
US 60/839,833	24 August 2006	Electromagnetic Energy Detection System Including Buried Optics
US 60/840,656	28 August 2006	Electromagnetic energy detection system including buried optics
US 60/850,678	10 October 2006	Fabrication of a plurality of optical elements on a substrate
US 60/850,429	10 October 2006	Electromagnetic energy detection system including buried optics
US 60/865,736	14 November 2006	Fabrication of a plurality of optical elements on a substrate
US 60/871,920	26 December 2006	Fabrication of a plurality of optical elements on a substrate
US 60/871,917	26 December 2006	Fabrication of a plurality of optical elements on a substrate
US 12/297,608	17 April 2007	Arrayed Imaging Systems and Associated Methods
JP 2009506540	17 April 2007	Arrayed Imaging Systems and Associated Methods
KR 1020087028083	17 April 2007	Arrayed Imaging Systems and Associated Methods
CN 2007800226557	17 April 2007	Arrayed Imaging Systems and Associated Methods
IL 194792	17 April 2007	Arrayed Imaging Systems and Associated Methods
EP 07835728.2	17 April 2007	Arrayed Imaging Systems and Associated Methods
TW 096113560	17 April 2007	Arrayed Imaging Systems and Associated Methods
TW 096118434	17 April 2007	Saturation Optics
PCT/US07/09347	17 April 2007	Arrayed Imaging Systems and Associated Methods

Schedule A

PATENT REEL: 040381 FRAME: 0168

RECORDED: 10/17/2016