

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT3707930

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
SEQUENCE:	2

CONVEYING PARTY DATA

Name	Execution Date
PELICAN IMAGING CORPORATION	12/21/2015

RECEIVING PARTY DATA

Name:	KIP PELI P1 LP
Street Address:	1345 AVENUE OF THE AMERICAS
Internal Address:	46TH FLOOR
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10105

PROPERTY NUMBERS Total: 189

Property Type	Number
Patent Number:	8902321
Patent Number:	8896719
Patent Number:	9060120
Patent Number:	9041823
Patent Number:	9049390
Patent Number:	9049367
Patent Number:	8885059
Patent Number:	9060142
Patent Number:	9041829
Patent Number:	9060124
Patent Number:	9049391
Patent Number:	9060121
Patent Number:	9055213
Patent Number:	9077893
Patent Number:	8878950
Patent Number:	9047684
Patent Number:	9041824
Patent Number:	8514491

PATENT

Property Type	Number
Patent Number:	8861089
Patent Number:	8866920
Patent Number:	9191580
Patent Number:	9049411
Patent Number:	9124815
Patent Number:	9094661
Patent Number:	9055233
Patent Number:	9049381
Patent Number:	8231814
Patent Number:	8305456
Patent Number:	8692893
Patent Number:	9197821
Patent Number:	8928793
Patent Number:	8804255
Patent Number:	9128228
Patent Number:	9129183
Patent Number:	8542933
Patent Number:	8831367
Patent Number:	9036928
Patent Number:	9036931
Patent Number:	9031335
Patent Number:	9031342
Patent Number:	9025894
Patent Number:	9025895
Patent Number:	9031343
Patent Number:	9042667
Patent Number:	9214013
Patent Number:	9210392
Patent Number:	9143711
Patent Number:	9100635
Patent Number:	8619082
Patent Number:	8780113
Patent Number:	9123117
Patent Number:	9123118
Patent Number:	9129377
Patent Number:	9147254
Patent Number:	8866912
Patent Number:	9124864

Property Type	Number
Patent Number:	9124831
Patent Number:	9100586
Patent Number:	9106784
Patent Number:	9185276
Application Number:	61054694
Application Number:	14704909
Application Number:	61281662
Application Number:	61263339
Application Number:	61314776
Application Number:	14519659
Application Number:	61334011
Application Number:	14475481
Application Number:	14704920
Application Number:	13445551
Application Number:	13106797
Application Number:	61484920
Application Number:	14589263
Application Number:	61502158
Application Number:	13832120
Application Number:	14456813
Application Number:	14705919
Application Number:	14705925
Application Number:	61545929
Application Number:	13650039
Application Number:	61536500
Application Number:	13623091
Application Number:	14102493
Application Number:	61540188
Application Number:	14667492
Application Number:	14667495
Application Number:	14667503
Application Number:	61601413
Application Number:	13773284
Application Number:	14705914
Application Number:	61707691
Application Number:	14042275
Application Number:	14876024
Application Number:	61701044

Property Type	Number
Application Number:	61692547
Application Number:	13975159
Application Number:	61595611
Application Number:	13761040
Application Number:	61776751
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Application Number:	61666852
Application Number:	13782920
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Application Number:	14188521
Application Number:	14188524
Application Number:	14841651
Application Number:	61780479
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Application Number:	14441503
Application Number:	61786533
Application Number:	14776553
Application Number:	61783441

Property Type	Number
Application Number:	61775395
Application Number:	14773748
Application Number:	61786218
Application Number:	14773742
Application Number:	61798602
Application Number:	14145734
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Application Number:	14216968
Application Number:	14705885
Application Number:	14705903
Application Number:	61780974
Application Number:	14207254
Application Number:	61780748
Application Number:	14841694
Application Number:	61785797
Application Number:	14814291
Application Number:	14814297
Application Number:	61909308
Application Number:	14555279
Application Number:	14555368
Application Number:	61883927
Application Number:	14500979
Application Number:	61901378
Application Number:	61904947
Application Number:	14536552
Application Number:	14536554
Application Number:	61905423
Application Number:	14547048
Application Number:	61976335
Application Number:	14484154
Application Number:	61949999
Application Number:	14642637
Application Number:	62003015
Application Number:	14593369
Application Number:	14724447
Application Number:	62014021
Application Number:	14561925
Application Number:	62094392

Property Type	Number
Application Number:	62219528
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Application Number:	62067913
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Application Number:	62106161
Application Number:	62149636
Application Number:	14887845
Application Number:	14936199
Application Number:	14943009
Application Number:	14952195
Application Number:	14967742
Application Number:	14962943
Application Number:	14880907
Application Number:	14868942
Application Number:	14933871
Application Number:	14933561
Application Number:	14883121

CORRESPONDENCE DATA

Fax Number: (206)359-7198

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: (206) 359-8000

Email: patentprocurement@perkinscoie.com

Correspondent Name: PERKINS COIE LLP

Address Line 1: P.O. BOX 1247

Address Line 2: PATENT-SEA

Address Line 4: SEATTLE, WASHINGTON 98111-1247

NAME OF SUBMITTER:	JACKIE CONKEY
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SIGNATURE:	/JackieConkey/
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DATE SIGNED:	01/22/2016
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Total Attachments: 25

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ASSIGNMENT OF PATENT RIGHTS

DECEMBER 21, 2015

This ASSIGNMENT OF PATENT RIGHTS (this “**Assignment**”) is made effective as of the date first written above, by Pelican Imaging Corporation, a Delaware corporation with a business address located at 451 El Camino Real, Santa Clara, California 95050 (“**Assignor**”).

1. In consideration for the execution that Credit Agreement, dated as of December 21, 2015 by and between DBD Credit Funding LLC, a Delaware limited liability company (“**Lender**”), and Assignor (the “**Credit Agreement**”), the funding of the Term Loans (as defined in the Credit Agreement) and for other good and valuable consideration, the receipt of which is hereby acknowledged, Assignor does hereby sell, assign, transfer, and convey unto KIP PELI P1 LP (“**Assignee**”), a limited partnership with an address at 1345 Avenue of the Americas, 46th Floor, New York, New York 10105, all of Assignor’s right, title, and interest that exist today and may exist in the future in and to any and all of the following (collectively, the “**Patent Rights**”), effective as of the Effective Date:

(a) All of the patent applications and patents of Assignor existing as of the Effective Date, including, without limitation, the patent applications and patents listed in the table attached hereto as Exhibit C (the “**Patents**”);

(b) All patents and patent applications (i) to which any of the Patents claim priority, directly or indirectly; (ii) for which any of the Patents directly or indirectly form a basis for priority; or (iii) that were co-owned applications that incorporate by reference, or are incorporated by reference into, the Patents;

(c) All issues, reissues, reexaminations, extensions, continuations, continuations-in-part, continuing prosecution applications, requests for continuing examinations, divisions, or registrations of any item in either of the foregoing categories (a) and (b);

(d) All foreign patents, patent applications, and counterparts relating to any item in any of the foregoing categories (a) through (c), including, without limitation, certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances;

(e) All items in any of the foregoing categories (b) through (d), whether or not expressly listed as Patents above and whether or not claims in any of the foregoing have been rejected, withdrawn, cancelled, or the like;

(f) Inventions, invention disclosures, and discoveries described in any of the Patents or any item in the foregoing categories (b) through (e) that (i) are included in any claim in the Patents or any item in the foregoing categories (b) through (e); (ii) are subject matter capable of being reduced to a patent claim in a reissue or reexamination proceeding brought on any of the Patents or any item in the foregoing categories (b) through (e); or (iii) could have been included as a claim in any of the Patents or any item in the foregoing categories (b) through (e);

(g) All rights to apply in any or all countries of the world for patents, certificates of invention, utility models, industrial design protections, design patent protections, or other governmental grants or issuances of any type related to any item in any of the foregoing categories (a) through (f), including, without limitation, under the Paris Convention for the

Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement or understanding;

(h) All causes of action (whether known or unknown or whether currently pending, filed, or otherwise) and other enforcement rights under, or on account of, any of the Patents or any item in any of the foregoing categories (b) through (g), including, without limitation, all causes of action and other enforcement rights for (i) damages; (ii) injunctive relief; and (iii) any other remedies of any kind for past, current, and future infringement; and

(i) All rights to collect royalties and other payments under or on account of any of the Patents or any item in any of the foregoing categories (b) through (h), excluding any and all license agreements of Assignor existing prior to the Effective Date as set forth on Exhibit A hereto (such agreements, the “**Existing Licenses**”).

2. Assignor hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all patents, certificates of invention, utility models or other governmental grants or issuances that may be granted upon any of the Patent Rights in the name of Assignee, as the assignee to the entire interest therein, subject to licenses to certain third parties.

3. Assignor represents and warrants to Assignee, except as set forth on the Schedule of Exceptions attached hereto as Exhibit B, which exceptions shall be deemed to be part of the representations and warranties made hereunder, as follows:

(a) Assignor is a company duly formed, validly existing, and in good standing under the laws of its formation jurisdiction.

(b) Assignor has the full power and authority to sell, assign, transfer and convey the Patent Rights to Assignee.

(c) Subject to the Existing Licenses, Assignor owns all right, title, and interest to the Patent Rights, and the Patents are all of the patents and patent applications of Assignor as of the Effective Date. Assignor has obtained and properly recorded previously executed assignments for the Patent Rights as necessary to fully perfect its rights and title therein in accordance with governing law and regulations in each respective jurisdiction. Except for the Existing Licenses and the security interest granted by Assignor to Lender pursuant to the Credit Agreement and other Permitted Liens (as defined in the Credit Agreement), the Patent Rights are free and clear of all security interests or other encumbrances of any kind. Except for routine patent prosecution in the United States Patent and Trademark Office or foreign equivalents, there are no actions, suits, investigations, claims, or proceedings threatened, pending, or in progress in any way relating to the Patent Rights. To the knowledge of Assignor, formed after reasonable due diligence and investigation (“**Knowledge**”), all inventors named on the Patents are true and correct.

(d) There is no obligation imposed by a standards setting organization to license any of the Patents on particular terms and conditions. Except as set forth in the Existing Licenses or as contemplated by the Transaction Documents (as defined in the Credit Agreement), (i) no licenses under the Patents have been granted or retained by Assignor or any other party, and (ii) Assignor is not subject to any covenant not to sue or other contractual restrictions on its enforcement or enjoyment of the Patent Rights.

(e) None of the Patents has ever been found invalid, unpatentable, or unenforceable for any reason in any proceeding, and Assignor does not know of and has not received any written notice

or information of any kind suggesting that the Patents may be invalid, unpatentable or unenforceable, other than official notices from patent offices in the course of patent prosecution. To the extent "small entity" fees were paid to the United States Patent and Trademark Office for any Patent, such reduced fees were then appropriate because the payor qualified to pay "small entity" fees at the time of such payment and specifically had not licensed rights in any of the Patents to an entity that was not a "small entity." If any of the Patents are terminally disclaimed to another patent or patent application, all patents and patent applications subject to such terminal disclaimer are included in the Patents.

(f) Other than as set forth in the Existing Licenses, none of Assignor, any prior owner, or their respective agents or representatives have engaged in any conduct, or omitted to perform any necessary act, the result of which would invalidate any of the Patents or hinder their enforcement.

(g) As of the date hereof, Assignor has not (i) put a third party on notice of actual or potential infringement of any of the Patents; (ii) except for the Existing Licenses, entered into a license with a third party under any of the Patents, or (iii) initiated any enforcement action with respect to any of the Patents.

(h) To the Knowledge of Assignor, none of the Patents has been or is currently involved in any reexamination, supplemental examination, reissue, interference proceeding, or any similar proceeding, and no such proceedings are pending or threatened.

(i) All material obligations to pay maintenance fees, annuities and other amounts due or payable on the Patents and required to maintain such Patents as active and in good standing have been satisfied.

4. EXCEPT AS SET FORTH ABOVE AND IN THE OTHER TRANSACTION DOCUMENTS (AS DEFINED IN THE CREDIT AGREEMENT), AND WITHOUT LIMITING THE REPRESENTATIONS AND WARRANTIES, ASSIGNOR MAKES NO OTHER REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE PATENTS AND PATENT RIGHTS AND HEREBY DISCLAIMS ALL OTHER WARRANTIES AND REPRESENTATIONS WITH RESPECT TO THE PATENTS OR PATENT RIGHTS, WHETHER EXPRESS, IMPLIED OR OTHERWISE, INCLUDING AS TO THE VALIDITY OR ENFORCEABILITY OF THE PATENTS OR THE PATENT RIGHTS.

5. Assignor will, at the reasonable request of Assignee, and at Assignee's expense, do all things that are reasonably within its power and that are necessary, proper, or advisable, including the execution, acknowledgment, and recordation of specific assignments, oaths, declarations, and other documents on a country-by-country basis, to assist Assignee in obtaining, perfecting, sustaining or enforcing the Patent Rights.

6. The terms and conditions of this Assignment will inure to the benefit of Assignee and its successors, assigns, and other legal representatives and will be binding upon Assignor and its successors, assigns, and other legal representatives.

7. This Agreement shall be governed by and construed in accordance with the laws of the State of New York without regard to its rules of conflict of law, except Section 5-1401 of the New York General Obligations Law; *provided, however*, that the prosecution, perfection, issuance, maintenance, validity and enforceability of any rights granted under such Patent Rights will be governed by the Laws of that jurisdiction without reference to choice of law principles to the contrary. Assignor (and Assignee by its acceptance hereof) hereby irrevocably submit to the nonexclusive jurisdiction of any New York state or federal court sitting in the County of New York over any suit, action or proceeding arising out of or relating to this Agreement, and the parties hereby agree and consent that, in addition to any methods of service of process provided for under applicable law, all service of process in any such suit, action or proceeding in any New York state or federal court sitting in the County of New York may be made by certified or registered mail, return receipt requested, or overnight mail with a reputable national carrier, directed to the applicable party at the address indicated above, and service so made shall be complete five (5) days after the same shall have been so mailed (one (1) day in the case of an overnight mail service).

8. Capitalized terms not defined herein shall have their respective meanings as set forth in the Credit Agreement.

9. This Assignment represents the entire agreement about the subject matter of this Assignment and supersedes prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of this Assignment merge into this Assignment.

[Signature Page Follows]

IN WITNESS WHEREOF this Assignment of Patent Rights is executed as of the Effective Date.

ASSIGNOR:

PELICAN IMAGING CORPORATION

By 

Name: Christopher Pickett

Title: Chief Executive Officer

(Signature *MUST* be attested.)

ATTESTATION OF SIGNATURE UNDER 28 U.S.C. § 1746

The undersigned witnessed the signature of Christopher Pickett to the above Assignment of Patent Rights on behalf of Pelican Imaging Corporation, a Delaware corporation, and makes the following statements:

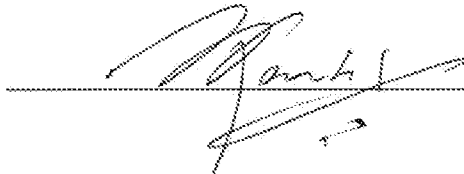
1. I am over the age of 18 and competent to testify as to the facts in this Attestation block if called upon to do so.

2. Christopher Pickett is personally known to me (or proved to me on the basis of satisfactory evidence) and appeared before me on December 21, 2015 to execute the above Assignment of Patent Rights on behalf of Pelican Imaging Corporation.

3. Christopher Pickett subscribed to the above Assignment of Patent Rights on behalf of Pelican Imaging Corporation.

I declare under penalty of perjury under the laws of the United States of America that the statements made in the three (3) numbered Sections immediately above are true and correct.

EXECUTED on December 21, 2015



Print Name: Kartik Venkataraman

[Signature and Attestation Page to Assignment of Patent Rights]

Exhibit A - Existing Licenses

[REDACTED]

Exhibit B – Schedule of Exceptions

[REDACTED]

Exhibit C - Patents

Patent /Application No.	Country/Jurisdiction	Filing Date (mm-dd-yyyy)	Title of Patent and First Named Inventor	First Named Inventor
8,902,321	United States of America	5/20/2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Kartik Venkataraman
ZL 200980117890.1	China	5/20/2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Kartik Venkataraman
201310438869X	China	5/20/2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Kartik Venkataraman
8,896,719	United States of America	7/30/2014	Systems and Methods for Parallax Measurement Using Camera Arrays Incorporating 3 x 3 Camera Configurations	Kartik Venkataraman
9,060,142	United States of America	9/2/2014	Capturing and Processing of Images Captured by Camera Arrays Including Heterogeneous Optics	Kartik Venkataraman
9,041,829	United States of America	9/2/2014	Capturing and Processing of High Dynamic Range Images Using Camera Arrays	Kartik Venkataraman
9,049,367	United States of America	8/13/2014	Systems and Methods for Synthesizing Higher Resolution Images Using Images Captured by Camera Arrays	Kartik Venkataraman
9,060,120	United States of America	7/30/2014	Systems and Methods for Generating Depth Maps Using Images Captured by Camera Arrays	Kartik Venkataraman
14/704909	United States of America	5/5/2015	Systems and Methods for Generating Depth Maps Using Light Focused on an Image Sensor by a Lens Element Array	Kartik Venkataraman
9,060,121	United States of America	9/25/2014	Capturing and Processing of Images Captured by Camera Arrays Including Cameras Dedicated to Sampling Luma and Cameras Dedicated to Sampling Chroma	Kartik Venkataraman
9,060,124	United States of America	9/2/2014	Capturing and Processing of Images Using Non-Monolithic Camera Arrays	Kartik Venkataraman
9,055,213	United States of America	9/25/2014	Systems and Methods for Measuring Depth Using Images Captured by Monolithic Camera Arrays Including at Least One Bayer Camera	Kartik Venkataraman
9,041,823	United States of America	7/30/2014	Systems and Methods for Performing Post Capture Refocus Using Images Captured by Camera Arrays	Kartik Venkataraman
9,077,893	United States of America	9/25/2014	Capturing and Processing of Images Captured by Non-Grid Camera Arrays	Kartik Venkataraman
8,885,059	United States of America	8/13/2014	Systems and Methods for Measuring Depth Using Images Captured by Camera Arrays	Kartik Venkataraman
9,049,391	United States of America	9/2/2014	Capturing and Processing of Near-IR Images Including Occlusions Using	Kartik Venkataraman

Patent /Application No.	Country/Jurisdiction	Filing Date (mm-dd-yyyy)	Title of Patent and First Named Inventor	First Named Inventor
			Camera Arrays Incorporating Near-IR Light Sources	
9,049,390	United States of America	7/30/2014	Capturing and Processing of Images Captured by Arrays Including Polychromatic Cameras	Kartik Venkataraman
097631949	European Patent Office	5/20/2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Kartik Venkataraman
2011510681	Japan	5/20/2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Kartik Venkataraman
2014264372	Japan	5/20/2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Kartik Venkataraman
1020107028308	Republic of Korea	5/20/2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Kartik Venkataraman
PCT/US2009/04 4687	PCT	5/20/2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Kartik Venkataraman
166239	Singapore	5/20/2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Kartik Venkataraman
8,878,950	United States of America	12/14/2010	Systems and Methods for Synthesizing High Resolution Images Using Super-Resolution Processes	Dan Lelescu
2011343863	Australia	12/14/2011	Systems and Methods for Synthesizing High Resolution Images Using Super-Resolution Processes	Dan Lelescu
2821965	Canada	12/14/2011	System and Methods for Synthesizing High Resolution Images Using Super-Resolution Processes	Dan Lelescu
14/519,659	United States of America	10/21/2014	Systems and Methods for Synthesizing High Resolution Images Using Images Captured by an Array of Independently Controllable Imagers	Dan Lelescu
9047684	United States of America	10/21/2014	Systems and Methods for Synthesizing High Resolution Images Using a Set of Geometrically Registered Images	Dan Lelescu
9,041,824	United States of America	10/21/2014	Systems and Methods for Dynamic Refocusing of High Resolution Images Generated Using Images Captured by a Plurality of Imagers	Dan Lelescu
118483080	European Patent Office	12/14/2011	System and Methods for Synthesizing High Resolution Images Using Super-Resolution Processes	Dan Lelescu
PCT/US11/6492 1	PCT	12/14/2011	System and Methods for Synthesizing High Resolution Images Using Super-Resolution Processes	Dan Lelescu

Patent /Application No.	Country/Jurisdiction	Filing Date (mm-dd-yyyy)	Title of Patent and First Named Inventor	First Named Inventor
191151	Singapore	12/14/2011	System and Methods for Synthesizing High Resolution Images Using Super-Resolution Processes	Dan Lelescu
8,514,491	United States of America	11/22/2010	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Jacques Duparre
8,861,089	United States of America	7/22/2013	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Jacques Duparre
14/475,481	United States of America	9/2/2014	Capturing and Processing of Images Including Occlusions Captured by Heterogeneous Camera Arrays	Jacques Duparre
108323304	European Patent Office	11/22/2010	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Kartik Venkataraman
PCT/US10/057661	PCT	11/22/2010	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Kartik Venkataraman
099147177	Taiwan R.O.C.	11/22/2010	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Kartik Venkataraman
8,866,920	United States of America	11/22/2010	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Kartik Venkataraman
9,049,411	United States of America	8/13/2014	Camera Arrays Incorporating 3 x 3 Imager Configurations	Kartik Venkataraman
9,124,815	United States of America	8/13/2014	Capturing and Processing of Images Including Occlusions Captured by Arrays of Luma and Chroma Cameras	Kartik Venkataraman
9,094,661	United States of America	8/13/2014	Systems and Methods for Generating Depth Maps Using A Set of Images Containing A Baseline Image	Kartik Venkataraman
9,055,233	United States of America	8/13/2014	Systems and Methods for Synthesizing Higher Resolution Images Using a Set of Images Containing a Baseline Image	Kartik Venkataraman
9,191,580	United States of America	8/13/2014	Capturing and Processing of Images Including Occlusions Captured by Camera Arrays	Kartik Venkataraman
9,049,381	United States of America	8/13/2014	Systems and Methods for Normalizing Image Data Captured by Camera Arrays	Kartik Venkataraman
9,188,765	United States of America	5/5/2015	Capturing and Processing of Images Including Occlusions Focused on an Image Sensor by a Lens Stack Array	Kartik Venkataraman
8,231,814	United States of America	3/17/2011	Fabrication Process for Mastering Image Lens Arrays	Jacques Duparre
13/445,551	United States of America	4/12/2012	Fabrication Process for Mastering Imaging Lens Arrays	Jacques Duparre
117570010	European Patent Office	3/17/2011	Fabrication Process for Mastering Image Lens Arrays	Jacques Duparre

Patent /Application No.	Country/Jurisdiction	Filing Date (mm-dd-yyyy)	Title of Patent and First Named Inventor	First Named Inventor
2013500207	Japan	3/17/2011	Fabrication Process for Mastering Image Lens Arrays	Jacques Duparre
1020127027121	Republic of Korea	3/17/2011	Fabrication Process for Mastering Image Lens Arrays	Jacques Duparre
PCT/US11/28835	PCT	3/17/2011	Fabrication Process for Mastering Image Lens Arrays	Jacques Duparre
184118	Singapore	3/17/2011	Fabrication Process for Mastering Image Lens Arrays	Jacques Duparre
13/106,797	United States of America	5/12/2011	Imager Arrays Including an M x N Array of Focal Planes in which Different Types of Focal Planes are Distributed Around a Reference Focal Plane	Bedabrata Pain
2011800312879	China	5/12/2011	Architectures for Imager Arrays and Array Cameras	Bedabrata Pain
117813139	European Patent Office	5/12/2011	Architectures for Imager Arrays and Array Cameras	Bedabrata Pain
2013510321	Japan	11/9/2012	Architectures for Imager Arrays and Array Cameras	Bedabrata Pain
1020127032552	Republic of Korea	5/12/2011	Architectures for Imager Arrays and Array Cameras	Bedabrata Pain
PCT/US11/036349	PCT	5/12/2011	Architectures for Imager Arrays and Array Cameras	Bedabrata Pain
2012082699	Singapore	5/12/2011	Architectures for Imager Arrays and Array Cameras	Bedabrata Pain
10201503516V	Singapore	5/12/2011	Architectures for Imager Arrays and Array Cameras	Bedabrata Pain
8,305,456	United States of America	5/11/2012	Systems and Methods for Transmitting and Receiving Array Camera Image Data	Andrew Kenneth John McMahon
2012800293995	China	5/11/2012	Systems and Methods for Transmitting Array Camera Data	Andrew Kenneth John McMahon
8,692,893	United States of America	11/2/2012	Systems and Methods for Transmitting and Receiving Array Camera Image Data	Andrew Kenneth John McMahon
9,197,821	United States of America	4/7/2014	Systems and Methods for Transmitting and Receiving Array Camera Image Data	Andrew Kenneth John McMahon
127829356	European Patent Office	5/11/2012	Systems and Methods for Transmitting Array Camera Data	Andrew Kenneth John McMahon
2014510522	Japan	5/11/2012	Systems and Methods for Transmitting Array Camera Data	Andrew Kenneth John McMahon
1020137032457	Republic of Korea	5/11/2012	Systems and Methods for Transmitting Array Camera Data	Andrew Kenneth John McMahon
PCT/US2012/037670	PCT	5/11/2012	Systems and Methods for Transmitting Array Camera Data	Andrew Kenneth John McMahon
8,928,793	United States of America	5/12/2011	Imager Array Interfaces	Andrew Kenneth John McMahon
14/589,263	United States of America	1/5/2015	Imager Array Interfaces	Andrew Kenneth John McMahon
14/880,907	United States	10/12/2015	IMAGER ARRAY INTERFACES	Andrew Kenneth John

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	of America			McMahon
8,804,255	United States of America	6/28/2012	Optical Arrangements for Use with an Array Camera	Jacques Duparre
13/832,120	United States of America	3/15/2013	Optical Arrangements for Use with an Array Camera	Jacques Duparre
14/705,919	United States of America	5/6/2015	Array Cameras Incorporating Optics with Modulation Transfer Functions Greater than Sensor Nyquist Frequency for Capture of Images used In Super-Resolution Processing	Jacques Duparre
14/705,925	United States of America	5/6/2015	Array Cameras Incorporating Monolithic Array Camera Modules with High MTF Lens Stacks for Capture of Images Used in Super-Resolution Processing	Jacques Duparre
9,128,228	United States of America	5/19/2014	Optical Arrangements for Use with an Array Camera	Jacques Duparre
14/456,813	United States of America	8/11/2014	Optical Arrangements for Use with an Array Camera	Jacques Duparre
128042660	European Patent Office	6/25/2012	Optical Arrangements for Use with an Array Camera	Jacques Duparre
2014518889	Japan	6/25/2012	Optical Arrangements for Use with an Array Camera	Jacques Duparre
1020137035076	Republic of Korea	6/25/2012	Optical Arrangements for Use with an Array Camera	Jacques Duparre
PCT/US2012/044014	PCT	6/25/2012	Optical Arrangements for Use with an Array Camera	Jacques Duparre
2013093141	Singapore	6/25/2012	Optical Arrangements for Use with an Array Camera	Jacques Duparre
PCT/US2014/28447	PCT	3/14/2014	Optical Arrangements for Use with an Array Camera	Jacques Duparre
13/650,039	United States of America	10/11/2012	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Duparre
2012800575879	China	10/11/2012	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Duparre
14/868,942	United States of America	9/29/2015	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Duparre
128398211	European Patent Office	10/11/2012	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Duparre
2014535886	Japan	10/11/2012	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Duparre
1020147012405	Republic of Korea	10/11/2012	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Duparre
PCT/US12/59813	PCT	10/11/2012	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Duparre
11201401363U	Singapore	10/11/2012	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Duparre
14/102,493	United States of America	12/10/2013	Systems and Methods for Controlling Aliasing in Images Captured by an Array Camera for use in Super Resolution Processing Using Pixel	Shree Nayar

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			Apertures	
PCT/US12/5615 1	PCT	9/19/2012	Systems and Methods for Controlling Aliasing in Images Captured by an Array Camera for use in Super Resolution Processing Using Pixel Apertures	Kartik Venkataraman
13/623,091	United States of America	9/19/2012	Systems and Methods for Determining Depth From Multiple Views of a Scene that Include Aliasing Using Hypothesized Fusion	Kartik Venkataraman
14/933,561	United States of America	11/5/2015	Systems and Methods for Determining Depth From Multiple Views of a Scene that Include Aliasing Using Hypothesized Fusion	Priyam Chatterjee
PCT/US12/5616 6	PCT	9/19/2012	Systems and Methods for Determining Depth From Multiple Views of a Scene that Include Aliasing Using Hypothesized Fusion	Kartik Venkataraman
61/540,188	United States of America	9/28/2011	JPEG-DX: A Backwards-compatible, Dynamic Focus Extension to JPEG	Kartik Venkataraman
9,129,183	United States of America	9/28/2012	Systems and Methods For Encoding Light Field Image Files	Kartik Venkataraman
14/667,495	United States of America	3/24/2015	Systems and Methods For Encoding Light Field Image Files	Kartik Venkataraman
9,036,928	United States of America	9/4/2014	Systems and Methods for Encoding Structured Light Field Image Files	Kartik Venkataraman
9,031,343	United States of America	10/2/2014	Systems and Methods for Encoding Light Field Image Files Having a Depth Map	Kartik Venkataraman
9,031,335	United States of America	9/9/2014	Systems and Methods for Encoding Light Field Image Files Having Depth and Confidence Maps	Kartik Venkataraman
9,031,342	United States of America	9/9/2014	Systems and Methods For Encoding Refocusable Light Field Image Files	Kartik Venkataraman
14/667,503	United States of America	3/24/2015	Systems and Methods For Encoding Light Field Image Files Having Low Resolution Images	Kartik Venkataraman
2012800557669	China	9/28/2012	Systems and Methods for Encoding and Decoding Light Field Image Files	Kartik Venkataraman
128350410	European Patent Office	9/28/2012	Systems and Methods for Encoding and Decoding Light Field Image Files	Kartik Venkataraman
2708CHENP201 4	India	9/28/2012	Systems and Methods for Encoding and Decoding Light Field Image Files	Kartik Venkataraman
2014533435	Japan	9/28/2012	Systems and Methods for Encoding and Decoding Light Field Image Files	Kartik Venkataraman
1020147011449	Republic of Korea	9/28/2012	Systems and Methods for Encoding and Decoding Light Field Image Files	Kartik Venkataraman
PCT/US12/5809 3	PCT	9/28/2012	Systems and Methods for Encoding and Decoding Light Field Image Files	Kartik Venkataraman
8,542,933	United States of America	9/28/2012	Systems and Methods for Decoding Light Field Image Files	Kartik Venkataraman

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8,831,367	United States of America	7/31/2013	Systems and Methods for Decoding Light Field Image Files	Kartik Venkataraman
9,036,931	United States of America	9/4/2014	Systems and Methods for Decoding Structured Light Field Image Files	Kartik Venkataraman
9,042,667	United States of America	10/2/2014	Systems and Methods for Decoding Light Field Image Files Using a Depth Map	Kartik Venkataraman
9,025,894	United States of America	9/9/2014	Systems and Methods for Decoding Light Field Image Files Having Depth Confidence Maps	Kartik Venkataraman
9,025,895	United States of America	9/9/2014	Systems and Methods for Decoding Refocusable Light Field Image Files	Kartik Venkataraman
14/667,492	United States of America	3/24/2015	Systems and Methods for Decoding Light Field Image Files Having Low Resolution Images	Kartik Venkataraman
13/773,284	United States of America	2/21/2013	Systems and Methods for the Manipulation of Captured Light Field Image Data	Andrew Kenneth John McMahon
14/705,914	United States of America	5/6/2015	Systems and Method for Performing Depth Based Image Editing	Andrew Kenneth John McMahon
14/883,121	United States of America	10/14/2015	Systems and Methods for the Manipulation of Captured Light Field Image Data	Andrew Kenneth John McMahon
137517140	European Patent Office	2/21/2013	Systems and Methods for the Manipulation of Captured Light Field Image Data	Andrew Kenneth John McMahon
PCT/US2013/027146	PCT	2/21/2013	Systems and Methods for the Manipulation of Captured Light Field Image Data	Andrew Kenneth John McMahon
14/042,275	United States of America	9/30/2013	Generating Images from Light Fields Utilizing Virtual Viewpoints	Semyon Nisenzon
2013800505495	China	9/30/2013	Generating Images from Light Fields Utilizing Virtual Viewpoints	Ankit K Jain
14/876,024	United States of America	10/6/2015	Generating Images from Light Fields Utilizing Virtual Viewpoints	Semyon Nisenzon
138416136	European Patent Office	9/30/2013	Generating Images from Light Fields Utilizing Virtual Viewpoints	Ankit K Jain
PCT/US13/62720	PCT	9/30/2013	Generating Images from Light Fields Utilizing Virtual Viewpoints	Ankit K Jain
14/028,278	United States of America	9/16/2013	Systems and Methods for Correcting User Identified Artifacts in Light Field Images	Kartik Venkataraman
PCT/US2013/059991	PCT	9/16/2013	Systems and Methods for Correcting User Identified Artifacts in Light Field Images	Kartik Venkataraman
13/975,159	United States of America	8/23/2013	Feature Based High Resolution Motion Estimation from Low Resolution Images Captured Using an Array Source	Dan Lelescu
201380049828X	China	8/23/2013	Feature Based High Resolution Motion Estimation from Low	Dan Lelescu

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			Resolution Images Captured Using an Array Source	
14/933,871	United States of America	11/5/2015	Feature Based High Resolution Motion Estimation from Low Resolution Images Captured Using an Array Source	Dan Lelescu
138317680	European Patent Office	8/23/2013	Feature Based High Resolution Motion Estimation from Low Resolution Images Captured Using an Array Source	Dan Lelescu
1488DELNP2015	India	8/23/2013	Feature Based High Resolution Motion Estimation from Low Resolution Images Captured Using an Array Source	Dan Lelescu
PCT/US2013/056502	PCT	8/23/2013	Feature Based High Resolution Motion Estimation from Low Resolution Images Captured Using an Array Source	Dan Lelescu
13/761,040	United States of America	2/6/2013	Systems and Methods for Extending Dynamic Range of Imager Arrays by Controlling Pixel Analog Gain	Andrew Kenneth John McMahon
PCT/US2013/024987	PCT	2/6/2013	Systems and Methods for Extending Dynamic Range of Imager Arrays by Controlling Pixel Analog Gain	Andrew Kenneth John McMahon
14/204,990	United States of America	3/11/2014	Systems and Methods for Image Data Compression	Andrew Kenneth John McMahon
14/887,845	United States of America	10/20/2015	Systems and Methods for Image Data Compression	Andrew Kenneth John McMahon
9,210,392	United States of America	5/1/2013	Camera Modules Patterned with PI Filter Groups	Semyon Nisenzon
2013800292037	China	5/1/2013	Camera Modules Patterned with pi Filter Groups	Semyon Nisenzon
137852208	European Patent Office	5/1/2013	Camera Modules Patterned with pi Filter Groups	Semyon Nisenzon
2015510443	Japan	5/1/2013	Camera Modules Patterned with pi Filter Groups	Semyon Nisenzon
PCT/US2013/039155	PCT	5/1/2013	Camera Modules Patterned with pi Filter Groups	Semyon Nisenzon
13/782,920	United States of America	3/1/2013	Systems and Methods for Manufacturing Camera Modules Using Active Alignment of Lens Stack Arrays and Sensors	Jacques Duparre
2013800410955	China	6/14/2013	Systems and Methods for Manufacturing Camera Modules Using Active Alignment of Lens Stack Arrays and Sensors	Jacques Duparre
138104294	European Patent Office	6/14/2013	Systems and Methods for Manufacturing Camera Modules Using Active Alignment of Lens Stack Arrays and Sensors	Jacques Duparre
2015520272	Japan	6/14/2013	Systems and Methods for	Jacques Duparre

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			Manufacturing Camera Modules Using Active Alignment of Lens Stack Arrays and Sensors	
1020157002415	Republic of Korea	6/14/2013	Systems and Methods for Manufacturing Camera Modules Using Active Alignment of Lens Stack Arrays and Sensors	Jacques Duparre
PCT/US2013/046002	PCT	6/14/2013	Systems and Methods for Manufacturing Camera Modules Using Active Alignment of Lens Stack Arrays and Sensors	Jacques Duparre
14/195,675	United States of America	3/3/2014	Passive Alignment of Array Camera Modules Constructed from Lens Stack Arrays and Sensors Based Upon Alignment Information Obtained During Manufacture of Array Camera Modules Using an Active Alignment Process	Jacques Duparre
PCT/US2014/025904	PCT	3/13/2014	Systems and Methods for Using Alignment to Increase Sampling Diversity of Cameras in an Array Camera Module	Jacques Duparre
9,143,711	United States of America	11/13/2013	Systems and Methods for Array Camera Focal Plane Control	Andrew Kenneth John McMahon
14/855,715	United States of America	9/16/2015	Systems and Methods for Array Camera Focal Plane Control	Andrew Kenneth John McMahon
PCT/US2013/069932	PCT	11/13/2013	Systems and Methods for Array Camera Focal Plane Control	Andrew Kenneth John McMahon
14/200,629	United States of America	3/7/2014	Systems and Methods for Synthesizing High Resolution Images Using Image Deconvolution Based on Motion and Depth Information	Thang Duong
14/199,977	United States of America	3/6/2014	Systems and Methods for Providing an Array Projector	Jacques Duparre
PCT/US2014/021439	PCT	3/6/2014	Systems and Methods for Providing an Array Projector	Jacques Duparre
9,100,635	United States of America	6/28/2013	Systems and Methods for Detecting Defective Camera Arrays and Optic Arrays	Jacques Duparre
2013800402380	China	6/28/2013	Systems and Methods for Detecting Defective Camera Arrays, Optic Arrays and Sensors	Jacques Duparre
14/805,412	United States of America	7/21/2015	Systems and Methods for Detecting Defective Camera Arrays and Optic Arrays	Jacques Duparre
138102298	European Patent Office	6/28/2013	Systems and Methods for Detecting Defective Camera Arrays, Optic Arrays and Sensors	Jacques Duparre
2015520605	Japan	6/28/2013	Systems and Methods for Detecting Defective Camera Arrays, Optic Arrays and Sensors	Jacques Duparre

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1020157002308	Republic of Korea	6/28/2013	Systems and Methods for Detecting Defective Camera Arrays, Optic Arrays and Sensors	Jacques Duparre
PCT/US2013/04 8772	PCT	6/28/2013	Systems and Methods for Detecting Defective Camera Arrays, Optic Arrays and Sensors	Jacques Duparre
8,619,082	United States of America	8/21/2013	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras that Contain Occlusions using Subsets of Images to Perform Depth Estimation	Florian Ciurea
2013305770	Australia	8/21/2013	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Kartik Venkataraman
2881131	Canada	8/21/2013	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Kartik Venkataraman
2013800487355	China	8/21/2013	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Kartik Venkataraman
8,780,113	United States of America	12/30/2013	Systems and Methods for Performing Depth Estimation using Image Data from Multiple Spectral Channels	Florian Ciurea
9,123,117	United States of America	10/28/2014	Systems and Methods for Generating Depth Maps and Corresponding Confidence Maps Indicating Depth Estimation Reliability	Florian Ciurea
14/329,754	United States of America	7/11/2014	Systems and Methods for Measuring Depth Using an Array of Independently Controllable Cameras	Florian Ciurea
9,123,118	United States of America	10/28/2014	System and Methods for Measuring Depth Using an Array Camera Employing a Bayer Filter	Florian Ciurea
14/526,392	United States of America	10/28/2014	Systems and Methods for Estimating Depth and Visibility from a Reference Viewpoint for Pixels in a Set of Images Captured from Different Viewpoints	Florian Ciurea
9,147,254	United States of America	10/28/2014	Systems and Methods for Measuring Depth in the Presence of Occlusions Using a Subset of Images	Florian Ciurea
9,129,377	United States of America	10/28/2014	Systems and Methods for Measuring Depth Based Upon Occlusion Patterns in Images	Florian Ciurea
138309455	European Patent Office	8/21/2013	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Kartik Venkataraman
1020157006433	Republic of Korea	8/21/2013	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Kartik Venkataraman
PCT/US13/5606	PCT	8/21/2013	Systems and Methods for Parallax	Kartik Venkataraman

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5			Detection and Correction in Images Captured Using Array Cameras	
PCT/US13/56053	PCT	8/21/2013	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Kartik Venkataraman
11201500910R	Singapore	8/21/2013	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Kartik Venkataraman
14/186,871	United States of America	2/21/2014	Systems and Methods for Generating Compressed Light Field Representation Data Using Captured Light Fields, Array Geometry, and Parallax Information	Kartik Venkataraman
PCT/US2014/017766	PCT	2/21/2014	Systems and Methods for Generating Compressed Light Field Representation Data Using Captured Light Fields, Array Geometry, and Parallax Information	Kartik Venkataraman
14/188,521	United States of America	2/24/2014	Thin Form Factor Computational Array Cameras and Modular Array cameras	Kartik Venkataraman
14/188,524	United States of America	2/24/2014	Thin Form Factor Computational Array Cameras and Modular Array Cameras	Kartik Venkataraman
PCT/US2014/018084	PCT	2/24/2014	Thin Form Factor Computational Array Cameras and Modular Array Cameras	Kartik Venkataraman
8,866,912	United States of America	3/10/2013	System and Methods for Calibration of an Array Camera Using a Single Captured Image	Robert Mullis
9,124,864	United States of America	10/20/2014	System and Methods for Calibration of an Array Camera	Robert Mullis
14/841,651	United States of America	8/31/2015	System and Methods for Calibration of an Array Camera	Robert Mullis
14/776,509	United States of America	3/11/2014	Array Camera Architecture Implementing Quantum Film Image Sensors	Jacques Duparre
PCT/US2014/023762	PCT	3/11/2014	Array Camera Architecture Implementing Quantum Film Image Sensors	Jacques Duparre
14/441,503	United States of America	5/7/2015	Array Camera Architecture Implementing Quantum Dot Color Filters	Kartik Venkataraman
PCT/US2014/024407	PCT	3/12/2014	Array Camera Architecture Implementing Quantum Dot Color Filters	Kartik Venkataraman
14/776,553	United States of America	3/12/2014	Systems and Methods for Reducing Motion Blur in Images or Video in Ultra Low Light with Array Cameras	Gabriel Molina
PCT/US2014/025100	PCT	3/12/2014	Systems and Methods for Reducing Motion Blur in Images or Video in	Gabriel Molina

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			Ultra Low Light with Array Cameras	
14/773,748	United States of America	9/8/2015	Systems and Methods for Measuring Scene Information While Capturing Images Using Array Cameras	Florian Ciurea
PCT/US2014/02 2118	PCT	3/7/2014	Systems and Methods for Measuring Scene Information While Capturing Images Using Array Cameras	Florian Ciurea
14/773,742	United States of America	9/8/2015	Systems and Methods for High Dynamic Range Imaging Using Array Cameras	Florian Ciurea
PCT/US2014/02 2123	PCT	3/7/2014	Systems and Methods for High Dynamic Range Imaging Using Array Cameras	Florian Ciurea
14/145,734	United States of America	12/31/2013	Extended Color Processing on Pelican Array Cameras	Robert Mullis
PCT/US2014/01 8116	PCT	2/24/2014	Extended Color Processing on Pelican Array Cameras	Robert Mullis
14/216,968	United States of America	3/17/2014	Systems and Methods for Stereo Imaging with Camera Arrays	Kartik Venkataraman
14/705,885	United States of America	5/6/2015	Systems and Methods for Estimating Depth Using Stereo Array Cameras	Kartik Venkataraman
14/705,903	United States of America	5/6/2015	Systems and Methods for Estimating Depth using Ad Hoc Stereo Array Cameras	Kartik Venkataraman
147/630,875	European Patent Office	3/17/2014	Systems and Methods for Stereo Imaging with Camera Arrays	Kartik Venkataraman
	Japanese Patent Office	3/17/2014	Systems and Methods for Stereo Imaging with Camera Arrays	Kartik Venkataraman
PCT/US2014/03 0692	PCT	3/17/2014	Systems and Methods for Stereo Imaging with Camera Arrays	Kartik Venkataraman
14/207,254	United States of America	3/12/2014	Systems and Methods for Synthesizing Images from Image Data Captured by an Array Camera Using Restricted Depth of Field Depth Maps in which Depth Estimation Precision Varies	Kartik Venkataraman
PCT/US2014/02 4947	PCT	3/12/2014	Systems and Methods for Synthesizing Images from Image Data Captured by an Array Camera Using Restricted Depth of Field Depth Maps in which Depth Estimation Precision Varies	Kartik Venkataraman
9,124,831	United States of America	3/10/2014	System and Methods for Calibration of an Array Camera	Robert Mullis
14/841,694	United States of America	8/31/2015	System and Methods for Calibration of an Array Camera	Robert Mullis
PCT/US2014/02 2774	PCT	3/10/2014	System and Methods for Calibration of an Array Camera	Robert Mullis
9,100,586	United States of America	3/14/2014	Systems and Methods for Photmetric Normalization in Array Cameras	Andrew Kenneth John McMahon
14/814,291	United States	7/30/2015	Systems and Methods for Photmetric	Andrew Kenneth John

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	of America		Normalization in Array Cameras	McMahon
PCT/US2014/029052	PCT	3/14/2014	Systems and Methods for Photometric Normalization in Array Cameras	Andrew Kenneth John McMahon
9,106,784	United States of America	3/13/2013	Systems and Methods for Controlling Aliasing in Images Captured by an Array Camera for use in Super-Resolution Processing	Dan Lelescu
14/814,297	United States of America	7/30/2015	Systems and Methods for Controlling Aliasing in Images Captured by an Array Camera for use in Super-Resolution Processing	Dan Lelescu
PCT/US2014/024903	PCT	3/12/2014	Systems and Methods for Controlling Aliasing in Images Captured by an Array Camera for use in Super-Resolution Processing	Dan Lelescu
14/555,279	United States of America	11/26/2014	Array Camera Configurations Incorporating Multiple Constituent Array Cameras	Kartik Venkataraman
14/555,368	United States of America	11/26/2014	Array Camera Configurations Incorporating Constituent Array Cameras and Constituent Cameras	Kartik Venkataraman
PCT/US2014/067740	PCT	11/26/2014	Array Camera Configurations Incorporating Multiple Constituent Array Cameras	Kartik Venkataraman
14/500,979	United States of America	9/29/2014	Systems and Methods for Depth-Assisted Perspective Distortion Correction	Samuel Yang
PCT/US2014/058142	PCT	9/29/2014	Systems and Methods for Depth-Assisted Perspective Distortion Correction	Samuel Yang
9,185,276	United States of America	11/7/2014	Methods of Manufacturing Array Camera Modules Incorporating Independently Aligned Lens Stacks	Errol Mark Rodda
14/536,552	United States of America	11/7/2014	Array Camera Modules Incorporating Independently Aligned Lens Stacks	Errol Mark Rodda
14/536,554	United States of America	11/7/2014	Array Cameras Incorporating Independently Aligned Lens Stacks	Errol Mark Rodda
PCT/US2014/064693	PCT	11/7/2014	Methods of Manufacturing Array Camera Modules Incorporating Independently Aligned Lens Stacks	Errol Mark Rodda
14/547,048	United States of America	11/18/2014	Systems and Methods for Estimating Depth from Projected Texture using Camera Arrays	Kartik Venkataraman
PCT/US2014/066229	PCT	11/18/2014	Systems and Methods for Estimating Depth from Projected Texture using Camera Arrays	Kartik Venkataraman
14/484,154	United States of America	9/11/2014	Systems and Methods for Correcting for Warpage of a Sensor Array in an Array Camera Module by Introducing Warpage into a Focal Plane of a Lens Stack Array	Jacques Duparre

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14/642,637	United States of America	3/9/2015	System and Methods for Depth Regularization and Semiautomatic Interactive Matting Using RGB-D Images	Manohar Srikanth
PCT/US2015/019529	PCT	3/9/2015	System and Methods for Depth Regularization and Semiautomatic Interactive Matting Using RGB-D Images	Manohar Srikanth
14/593,369	United States of America	1/9/2015	Array Cameras Including an Array Camera Module Augmented with a Separate Camera	Kartik Venkataraman
14/724,447	United States of America	5/28/2015	Autofocus System for a Conventional Camera That Uses Depth Information from an Array Camera	Kartik Venkataraman
PCT/US2015/032467	PCT	5/26/2015	Autofocus System for a Conventional Camera That Uses Depth Information from an Array Camera	Kartik Venkataraman
14/561,925	United States of America	12/5/2014	Array Cameras and Array Camera Modules Including Spectral Filters Disposed Outside of a Constituent Image Sensor	Errol Mark Rodda
PCT/US2015/053013	PCT	9/29/2015	Systems and Methods for Dynamic Calibration of Array Cameras	Florian Ciurea
14/690,346	United States of America	4/17/2015	Systems and Methods for Performing High Speed Video Capture and Depth Estimation Using Array Cameras	Kartik Venkataraman
PCT/US2015/026545	PCT	4/17/2015	Systems and Methods for Performing High Speed Video Capture and Depth Estimation Using Array Cameras	Kartik Venkataraman
61/281,662	United States of America	11/20/2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Kartik Venkataraman
61/263,339	United States of America	11/20/2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Kartik Venkataraman
61/314,776	United States of America	3/17/2010	Fabrication Process for Mastering Image Lens Arrays	Jacques Duparre
61/334,011	United States of America	5/12/2010	Architectures for System On Chip Array Cameras	Bedabrata Pain
61/484,920	United States of America	5/11/2011	Systems and Methods for Transmitting Array Camera Data	Andrew Kenneth John McMahon
61/502,158	United States of America	6/28/2011	Optical Arrangements for Use with an Array Camera	Jacques Duparre
61/545,929	United States of America	10/11/2011	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Duparre
61/536,500	United States of America	9/19/2011	Alaising Enhanced Super Resolution Processing Through Use of Pixel Apertures	Kartik Venkataraman
61/540,188	United States of America	9/28/2011	JPEG-DX: A Backwards-compatible, Dynamic Focus Extension to JPEG	Kartik Venkataraman
61/601,413	United States	2/21/2012	Method and Apparatus for	Andrew Kenneth John

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	of America		Manipulation of Light Field Images	McMahon
61/707,691	United States of America	9/28/2012	Synthesizing Images From Light Fields Utilizing Virtual Viewpoints	Ankit K Jain
61/701,044	United States of America	9/14/2012	Method and Apparatus for Selection, Detection, and Correction of Depth Related Artifacts in Light Field Images	Kartik Venkataraman
61/692,547	United States of America	8/23/2012	Feature Based High Resolution Motion Estimation from Low Resolution Images Captured Using An Array Source	Dan Lelescu
61/595,611	United States of America	2/6/2012	Systems and Methods for Extending Dynamic Range of Imager Arrays by Controlling Pixel Analog Gain	Andrew Kenneth John McMahon
61/776,751	United States of America	3/11/2013	Systems and Methods for Image Data Compression	Andrew Kenneth John McMahon
61/641,165	United States of America	5/1/2012	Camera Modules Patterned with pi Filter Groups	Semyon Nisenzon
61/666,852	United States of America	6/30/2012	Systems and Methods for Manufacturing Camera Modules Using Active Alignment of Lens Stack Arrays and Sensors	Jacques Duparre
61/772,443	United States of America	3/4/2013	Passive Alignment of Array Camera Modules Constructed from Lens Stack Arrays and Sensors Based Upon Alignment Information Obtained During Manufacture of Array Camera Modules Using an Active Alignment Process	Jacques Duparre
61/780,436	United States of America	3/13/2013	Systems and Methods for Using Alignment to Increase Sampling Diversity of Cameras in an Array Camera Module	Jacques Duparre
61/725,934	United States of America	11/13/2012	Systems and Methods for Array Camera Focal Plane Control	Andrew Kenneth John McMahon
61/772,315	United States of America	3/4/2013	Systems and Methods for Array Camera Focal Plane Control	Andrew Kenneth John McMahon
61/788,078	United States of America	3/15/2013	Systems and Methods for Synthesizing High Resolution Images using Image Deconvolution Based on Motion and Depth Information	Thang Duong
61/801,733	United States of America	3/15/2013	Systems and Methods for Providing ar Array Projector	Jacques Duparre
61/665,724	United States of America	6/28/2012	Systems and Methods for Screening Lenses for use in Array Cameras Based on a Modulation Transfer Function Screening Using an ROI-Based Criterion for the Overall Array	Jacques Duparre
61/691,666	United States of America	8/21/2012	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Kartik Venkataraman

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61/780,906	United States of America	3/13/2013	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Kartik Venkataraman
61/767,520	United States of America	2/21/2013	Systems and Methods for Generating Captured Light Field Image Data Using Captured Light Fields	Kartik Venkataraman
61/786,976	United States of America	3/15/2013	Systems and Methods for Generating Captured Light Field Image Data Using Captured Light Fields	Kartik Venkataraman
61/768,523	United States of America	2/24/2013	Thin form factor Computational Array Cameras using Non-monolithic Assemblies	Kartik Venkataraman
61/780,479	United States of America	3/13/2013	Array Camera Architecture Implementing Quantum Film Image Sensors	Jacques Duparre
61/786,533	United States of America	3/15/2013	Array Camera Architecture Implementing Quantum Dot Color Filters	Kartik Venkataraman
61/783,441	United States of America	3/14/2013	Systems and Methods for Reducing Motion Blur in Images or Video in Ultra Low Light with Array Cameras	Gabriel Molina
61/775,395	United States of America	3/8/2013	Systems and Methods for Measuring Scene Information While Capturing Images Using Array Cameras	Florian Ciurea
61/786,218	United States of America	3/14/2013	Systems and Methods for High Dynamic Range Imaging Using Array Cameras	Florian Ciurea
61/798,602	United States of America	3/15/2013	Extended Color Processing on Pelican Array Cameras	Robert Mullis
61/798,673	United States of America	3/15/2013	Systems and Methods for Stereo Imaging with Camera Arrays	Kartik Venkataraman
61/780,974	United States of America	3/13/2013	Systems and Methods for Synthesizing Images from Image Data Captured by an Array Camera Using Depth Maps in Which Depth Estimation Precision and Spatial Resolution Vary	Kartik Venkataraman
61/780,748	United States of America	3/13/2013	Systems and Methods for Calibration of an Array Camera	Robert Mullis
61/785,797	United States of America	3/14/2013	Systems and Methods for Photometric Normalization in Array Cameras	Andrew Kenneth John McMahon
61/909,308	United States of America	11/26/2013	Stereo Array Configuration for a Zoom Camera	Kartik Venkataraman
61/883,927	United States of America	9/27/2013	Automatic Depth Assisted Face Perspective Correction for Mobile Device Cameras	Samuel Yang
61/901,378	United States of America	11/7/2013	Non-Monolithic 3 x 3 Array Module with Discrete Sensors and Discrete Lenses	Errol Mark Rodda
61/904,947	United States of America	11/15/2013	Array Camera Modules and Methods of Manufacturing Array Camera	Errol Mark Rodda

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			Modules Incorporating Independently Aligned Lens Stacks	
61/905,423	United States of America	11/18/2013	Structured Lighting System for Depth Acquisition in Texture-less Regions Using Camera Arrays	Kartik Venkataraman
61/976,335	United States of America	4/7/2014	Sensor Array Warpage compensation by Intentionally Introducing Warpage into the Lens Array	Jacques Duparre
61/949,999	United States of America	3/7/2014	Depth Regularization and Semiautomatic Interactive Matting using RGB-D Images	Manohar Srikanth
62/003,015	United States of America	5/26/2014	Array Camera Augmented with External Image Sensor (Cyclops)	Kartik Venkataraman
62/014,021	United States of America	6/18/2014	Channel-Wise Structured (Organic) Color Filter Array Embedded in Image Sensor Cover Glass	Errol Mark Rodda
62/094,392	United States of America	12/19/2014	Optical Systems for Cameras Incorporating Lens Elements Formed Separately and Subsequently Bonded to Low CTE Substrates	Errol Mark Rodda
62/219,528	United States of America	9/16/2015	Optical Systems for Cameras Incorporating Lens Elements Formed Separately and Subsequently Bonded to Low CTE Substrates	Errol Mark Rodda
62/057,196	United States of America	9/29/2014	Adaptive Geometric Calibration for Array Cameras	Florian Ciurea
62/067,913	United States of America	10/23/2014	Considerations for Implementation of a Fast Focus Function Using a Camera Array for Depth to Augment Conventional Camera	Kartik Venkataraman
62/072,295	United States of America	10/29/2014	Considerations for Implementation of a Fast Focus Function Using a Camera Array for Depth to Augment Conventional Camera	Kartik Venkataraman
62/106,168	United States of America	1/21/2015	Adaptive Geometric Calibration for Array Cameras	Florian Ciurea
62/106,161	United States of America	1/21/2015	Efficient Methods for Parallax/Depth Estimation for Computation Array Camera's on Mobile Processors	Nageswara Rao Gunupudi
62/149,636	United States of America	4/19/2015	Multi-Baseline Camera Array System Architecture for Depth Augmentation in VR/AR Applications	Kartik Venkataraman
14/943,009	United States of America	11/16/2015	Capturing and Processing of Images Including Occlusions Focused on an Image Sensor by a Lens Stack Array	Kartik Venkataraman
14/936,199	United States of America	11/9/2015	Systems and Methods for Transmitting and Receiving Array Camera Image Data	Andrew Kenneth John McMahon
9,214,013	United States of America	9/16/2013	Systems and Methods for Correcting User Identified Artifacts in Light Field Images	Kartik Venkataraman

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14/967,742	United States of America	12/14/2015	Systems and Methods for Correcting User Identified Artifacts in Light Field Images	Kartik Venkataraman
14962943	United States of America	12/8/2015	Systems and Methods for Extending Dynamic Range of Imager Arrays by Controlling Pixel Analog Gain	Andrew Kenneth John McMahon
14/952,195	United States of America	11/25/2015	Camera Modules Patterned with Pi Filter Groups	Semyon Nisenzon
61/054694	United States of America	5/20/2008	Monolithic Integrated Array of Heterogeneous Image Sensors	Kartik Venkataraman