

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT8259106

SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	ASSIGNMENT		
CONVEYING PARTY DATA			
Name			Execution Date
KIP PELI P1 LP			10/31/2016
RECEIVING PARTY DATA			
Name:	PELICAN IMAGING CORPORATION		
Street Address:	451 EL CAMINO REAL		
Internal Address:	SUITE 100		
City:	SANTA CLARA		
State/Country:	CALIFORNIA		
Postal Code:	95050		
PROPERTY NUMBERS Total: 1			
Property Type	Number		
Application Number:	17821258		
CORRESPONDENCE DATA			
Fax Number:	(949)852-0004		
<i>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.</i>			
Phone:	9498520000		
Email:	pair@kppb.com		
Correspondent Name:	KPPB LLP		
Address Line 1:	3780 KILROY AIRPORT WAY		
Address Line 2:	SUITE 320		
Address Line 4:	LONG BEACH, CALIFORNIA 90806		
ATTORNEY DOCKET NUMBER:	P16-01660.CON7		
NAME OF SUBMITTER:	EMMU ZHOU		
SIGNATURE:	/Emmu Zhou/		
DATE SIGNED:	11/03/2023		
Total Attachments: 68			
source=01660con7assignment3#page1.tif			
source=01660con7assignment3#page2.tif			
source=01660con7assignment3#page3.tif			
source=01660con7assignment3#page4.tif			

source=01660con7assignment3#page5.tif
source=01660con7assignment3#page6.tif
source=01660con7assignment3#page7.tif
source=01660con7assignment3#page8.tif
source=01660con7assignment3#page9.tif
source=01660con7assignment3#page10.tif
source=01660con7assignment3#page11.tif
source=01660con7assignment3#page12.tif
source=01660con7assignment3#page13.tif
source=01660con7assignment3#page14.tif
source=01660con7assignment3#page15.tif
source=01660con7assignment3#page16.tif
source=01660con7assignment3#page17.tif
source=01660con7assignment3#page18.tif
source=01660con7assignment3#page19.tif
source=01660con7assignment3#page20.tif
source=01660con7assignment3#page21.tif
source=01660con7assignment3#page22.tif
source=01660con7assignment3#page23.tif
source=01660con7assignment3#page24.tif
source=01660con7assignment3#page25.tif
source=01660con7assignment3#page26.tif
source=01660con7assignment3#page27.tif
source=01660con7assignment3#page28.tif
source=01660con7assignment3#page29.tif
source=01660con7assignment3#page30.tif
source=01660con7assignment3#page31.tif
source=01660con7assignment3#page32.tif
source=01660con7assignment3#page33.tif
source=01660con7assignment3#page34.tif
source=01660con7assignment3#page35.tif
source=01660con7assignment3#page36.tif
source=01660con7assignment3#page37.tif
source=01660con7assignment3#page38.tif
source=01660con7assignment3#page39.tif
source=01660con7assignment3#page40.tif
source=01660con7assignment3#page41.tif
source=01660con7assignment3#page42.tif
source=01660con7assignment3#page43.tif
source=01660con7assignment3#page44.tif
source=01660con7assignment3#page45.tif
source=01660con7assignment3#page46.tif
source=01660con7assignment3#page47.tif
source=01660con7assignment3#page48.tif
source=01660con7assignment3#page49.tif
source=01660con7assignment3#page50.tif
source=01660con7assignment3#page51.tif
source=01660con7assignment3#page52.tif

source=01660con7assignment3#page53.tif
source=01660con7assignment3#page54.tif
source=01660con7assignment3#page55.tif
source=01660con7assignment3#page56.tif
source=01660con7assignment3#page57.tif
source=01660con7assignment3#page58.tif
source=01660con7assignment3#page59.tif
source=01660con7assignment3#page60.tif
source=01660con7assignment3#page61.tif
source=01660con7assignment3#page62.tif
source=01660con7assignment3#page63.tif
source=01660con7assignment3#page64.tif
source=01660con7assignment3#page65.tif
source=01660con7assignment3#page66.tif
source=01660con7assignment3#page67.tif
source=01660con7assignment3#page68.tif

RECORDATION FORM COVER SHEET
PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)

KIP PELI P1 LP

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance/Execution Date(s):

Execution Date(s) 10/31/2016

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Joint Research Agreement
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☐ Other _____

2. Name and address of receiving party(ies)

Name: Pelican Imaging Corporation

Internal Address: Suite 100

Street Address: 451 El Camino Real

City: Santa Clara

State: CA

Country: US Zip: 95050

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application or patent number(s):

☐ This document serves as an Oath/Declaration (37 CFR 1.63).

A. Patent Application No.(s)

17/821,258

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address to whom correspondence concerning document should be mailed:

Name: KPPB LLP

Internal Address: Suite 320

Street Address: 3780 Kilroy Airport Way

City: Long Beach

State: CA Zip: 90806

Phone Number: 949.852.0000

Docket Number: P16-01660.CON7

Email Address: pair@kppb.com

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) \$ _____

- ☐ Authorized to be charged to deposit account
☐ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

Deposit Account Number _____

Authorized UserName _____

9. Signature: /David Kaveh/

11-3-2023

Signature

Date

David Kaveh

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

68

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

PATENT
REEL: 065452 FRAME: 0819

PATENT ASSIGNMENT AGREEMENT

THIS PATENT ASSIGNMENT AGREEMENT ("Assignment"), effective October 31, 2016 (the "Effective Date"), is entered into by and between KIP PELI PI LP, a Cayman Islands limited partnership ("Assignor"), and Pelican Imaging Corporation, a Delaware corporation ("Assignee").

WHEREAS, Assignee has agreed to accept and assume from Assignor all right, title and interest in and to Assignor's Assigned Patent Rights (defined below) and Assignor desires to assign the same to Assignee,

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

Assignor hereby assigns, transfers, and conveys to Assignee, and Assignee accepts, all of Assignor's right, title, and interest throughout the world in and to the patents and patent applications set forth on Exhibit A, together with all divisions, continuations, or continuations-in-part thereof, and all patents issuing thereon including reissues, renewals, substitutions, re-examinations and extensions thereof, and any and all corresponding foreign patents and patent applications (collectively, the "Assigned Patent Rights"); and all rights and privileges pertaining to the subject matter above, including, without limitation, all causes of action, claims, demands presently or hereafter accruing with respect to the same, including the right to sue or bring other actions for past, present and future infringement thereof anywhere in the world. Assignor further assigns all rights, and empowers Assignee, its successors, assigns and nominees, to make applications for patent registration or other intellectual property protection anywhere in the world, to claim and receive the benefit of any applicable rights of priority in connection with such applications, to prosecute such applications to issue, and to have any and all registrations issued in the name of Assignee for all Assigned Patent Rights.

Assignor further agrees that Assignor will at Assignee's cost: (i) cooperate with Assignee in the filing and prosecution of any and all patent registrations or applications or other intellectual property registration or application pertaining to the Assigned Patent Rights; (ii) execute, verify, acknowledge and deliver all such further papers, including applications and instruments of transfer; and (iii) perform such other acts as Assignee lawfully may request, to facilitate Assignee's right to obtain, protect, maintain, defend or enforce any of the Assigned Patent Rights granted hereunder. In the event that Assignee is unable for any reason whatsoever to secure Assignor's signature to any document when so required to effectuate fully this Assignment, Assignor hereby irrevocably designates and appoints Assignee and Assignee's duly authorized officers and agents, as Assignor's agents and attorneys-in-fact to act for and on its behalf and instead of it, to execute and file any such document and to do all other lawfully permitted acts to further the purposes of the foregoing, with the same legal force and effect as if executed by Assignor (it being acknowledged that such appointment a power coupled with an interest).

This Agreement may be executed in counterparts, each of which is deemed an original, but all of which together are deemed to be one and the same agreement.

IN TESTIMONY WHEREOF, Assignor, KIP PELI PI LP, by its duly authorized representative, hereby executes this assignment this 31st day of October, 2016.

By: Pelican Imaging Corporation, its General Partner

Name: Christopher Pickett

Title: CEO

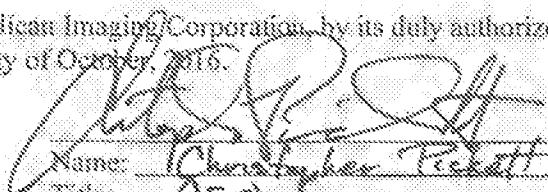
STATE OF CALIFORNIA)

COUNTY OF _____)

On _____, 2016, before the undersigned, a Notary Public for the State and County aforesaid, personally appeared _____, known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the above assignment, and acknowledged that he/she executed the same.

See attached form
Notary Public

IN TESTIMONY WHEREOF, Assignee, Pelican Imaging Corporation, by its duly authorized representative, hereby executes this assignment this 31st day of October, 2016.


Name: Christopher Fickert
Title: CEO

STATE OF CALIFORNIA)
)
COUNTY OF _____)

On _____, 2016, before the undersigned, a Notary Public for the State and County aforesaid, personally appeared _____, known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the above assignment, and acknowledged that he/she executed the same.

See attached form
Notary Public

Schedule A
Assigned Patent Rights

Patents

FILE NUMBER	COUNTRY	SERIAL NUMBER	FILING DATE	TITLE	INVENTORS (FIRST NAME LAST NAME)	PUBLICATION NUMBER	PATENT NUMBER	GRANT DATE	STATUS	CLUSTER NAME
01579	US	12935504	May 20, 2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Images	Karik Venkatarman, Ananddeep S. Jabbu, Robert H Mullis, Jr.	US-2011-0069189-A1	8902321	Dec 2, 2014	Issued	Pelican Array Camera Architecture Cases
01579.CN	CN	200980117890.1	May 20, 2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Images	Karik Venkatarman, Ananddeep S. Jabbu, Robert H Mullis, Jr.	102033771.7	ZL 200980117890.1	Nov 6, 2013	Issued	Pelican Array Camera Architecture Cases
01579.CN.DIV	CN	201310438869.X	May 20, 2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Images	Karik Venkatarman, Ananddeep S. Jabbu, Robert H Mullis, Jr.	CN103501416A			Published	Pelican Array Camera Architecture Cases
01579.CCN	US	14447477	Jul 30, 2014	Systems and Methods for Parallel Measurement Using Camera Arrays Incorporating 3 x 3 Camera	Karik Venkatarman, Ananddeep S. Jabbu, Robert H Mullis, Jr.	US-2014-0333787-A1	8896719	Nov 25, 2014	Issued	Pelican Array Camera Architecture Cases

01579.CON10	US	14475473	Sep 2, 2014	Capturing and Processing of Images Captured by Camera Arrays Including Heterogeneous Optics	Karlik Venkataraman, Arunandee S. Jabbi, Robert H. Mullis, Jr.	US-2014-0368684-A1	9060142	Jan 16, 2015	Issued	Pelican Array Camera Architecture Cases
01579.CON11	US	14475477	Sep 2, 2014	Capturing and Processing of High Dynamic Range Images Using Camera Arrays	Karlik Venkataraman, Arunandee S. Jabbi, Robert H. Mullis, Jr.	US-2014-0368685-A1	9041829	May 26, 2015	Issued	Pelican Array Camera Architecture Cases
01579.CON12	US	14459293	Aug 13, 2014	Systems and Methods for Synthesizing Higher Resolution Images Using Images Captured by Camera Arrays	Karlik Venkataraman, Arunandee S. Jabbi, Robert H. Mullis, Jr.	US-2014-0354855-A1	9049367	Jun 2, 2015	Issued	Pelican Image Processing Pipeline Cases
01579.CON13	US	14447508	Jul 30, 2014	Systems and Methods for Generating Depth Maps Using Images Captured by Camera Arrays	Karlik Venkataraman, Arunandee S. Jabbi, Robert H. Mullis, Jr.	US-2014-0333764-A1	9060120	Jan 16, 2015	Issued	Pelican Image Processing Pipeline Cases
01579.CON14	US	14704909	May 5, 2015	Systems and Methods for Generating Depth Maps Using Light Focused on an	Karlik Venkataraman, Arunandee S. Jabbi, Robert H. Mullis, Jr.	US-2015-0235371-A1	9235898	Jan 12, 2016	Issued	Pelican Array Camera Architecture Cases

01579.CON15	US	14988670	Jun 3, 2016	Systems and Methods for Generating Depth Maps Using Light Focused on an Image Sensor by a Lens Element Array	Karik Venkatarman, Ananddeep S. Jabbi, Robert H Mullis, Jr.	US-2016-0267665-A1		Allowed	Pelican Array Camera Architecture Cases	
01579.CON16	US	15095030	Apr 11, 2016	Systems and Methods for Measuring Depth Using Images Captured by a Camera Array Including Cameras Surrounding a Central Camera	Karik Venkatarman, Ananddeep S. Jabbi, Robert H Mullis, Jr.	US-2016-0227195-A1	9485496	Nov 1, 2016	Allowed	Pelican Array Camera Architecture Cases
01579.CON17	US	15283498	Aug 22, 2016	Systems and Methods for Generating Depth Maps Using a Camera Array Incorporating Monochrome and Color Cameras	Karik Venkatarman, Ananddeep S. Jabbi, Robert H Mullis			Pending		
01579.CON2	US	16497159	Sep 25, 2014	Capturing and Processing of Images Captured by Camera Arrays Including Cameras	Karik Venkatarman, Ananddeep S. Jabbi, Robert H Mullis, Jr.	US-2015-0009262-A1	9066021	Jun 16, 2015	Issued	Pelican Array Camera Architecture Cases

01579.CON3	US	14475449	Sep 2, 2014	Dedicated to Sampling Luma and Chroma Cameras Dedicated to Sampling Chroma	Karthik Venkataraman, Arunadeep S. Jabbi, Robert H Mullis, Jr.	US-2014-0366682-A1	9060124	Jun 16, 2015	Issued	Pelican Array Camera Architecture Cases
01579.CON4	US	14497171	Sep 25, 2014	Systems and Methods for Measuring Depth Using Images Captured by Monolithic Camera Arrays	Karthik Venkataraman, Arunadeep S. Jabbi, Robert H Mullis, Jr.	US-2015-0009353-A1	9053213	Jun 9, 2015	Issued	Pelican Array Camera Architecture Cases
01579.CON5	US	14437485	Jul 30, 2014	Systems and Methods for Performing Post Capture Refocus Using Images Captured by Camera Arrays	Karthik Venkataraman, Arunadeep S. Jabbi, Robert H Mullis, Jr.	US-2014-033731-A1	9041823	May 26, 2015	Issued	Pelican Image Processing Pipeline Cases
01579.CON6	US	14497180	Sep 25, 2014	Capturing and Processing of Images Captured by Non-Grid Camera Arrays	Karthik Venkataraman, Arunadeep S. Jabbi, Robert H Mullis, Jr.	US-2015-0009354-A1	9077093	Jul 7, 2015	Issued	Pelican Array Camera Architecture Cases

01579.CON7	US	14459296	Aug 13, 2014	Systems and Methods for Measuring Depth Using Images Captured by Camera Arrays	Karik Venkatarman, Arunadeep S. Jabb, Robert H Mullis, Jr.	US-2014-0354834-A1	8885059	Nov 11, 2014	Issued	Pelican Array Camera Architecture Cases
01579.CON8	US	14475466	Sep 2, 2014	Capturing and Processing of Near-IR Images Including Occlusions Using Camera Arrays Incorporating Near-IR Light Sources	Karik Venkatarman, Arunadeep S. Jabb, Robert H Mullis, Jr.	US-2014-0368662-A1	9049391	Jun 2, 2015	Issued	Pelican Array Camera Architecture Cases
01579.CON9	US	1447394	Jul 30, 2014	Capturing and Processing of Images Captured by Arrays Including Polychromatic Cameras	Karik Venkatarman, Arunadeep S. Jabb, Robert H Mullis, Jr.	US-2014-0340339-A1	9049390	Jun 2, 2015	Issued	Pelican Array Camera Architecture Cases
01579.EP	EP	097631949	May 20, 2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Images	Karik Venkatarman, Arunadeep S. Jabb, Robert H Mullis, Jr.	2289235			Pending	Pelican Array Camera Architecture Cases
01579.JP	JP	2011310681	May 20, 2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous	Karik Venkatarman, Arunadeep S. Jabb, Robert H Mullis, Jr.	2011-521538			Pending	Pelican Array Camera Architecture Cases

					Images					
01579 JP DIV	JP	2014264372	May 20, 2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Images	Karik Venkatarman, Ananddeep S. Jabbi, Robert H Mullis, Jr.		5989076	Aug 19, 2016	Issued	Pelican Army Camera Architecture Cases
01579 JP DIV2	JP	2016121809	May 20, 2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Images	Karik Venkatarman, Ananddeep S. Jabbi, Robert H Mullis, Jr.				Pending	Pelican Army Camera Architecture Cases
01579 KR	KR	1020107028308	May 20, 2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Images	Karik Venkatarman, Ananddeep S. Jabbi, Robert H Mullis, Jr.	10-1598877		Jan 20, 2016	Issued	Pelican Army Camera Architecture Cases
01579 KR DIV	KR	1020167001433	May 20, 2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Images	Karik Venkatarman, Ananddeep S. Jabbi, Robert H Mullis, Jr.				Pending	Pelican Army Camera Architecture Cases
01579 SG	SG	2010879085	May 20, 2009	Capturing and Processing of Images Using Monolithic Camera Array	Karik Venkatarman, Ananddeep S. Jabbi, Robert H Mullis, Jr.	166239		Feb 28, 2011	Issued	Pelican Army Camera Architecture Cases

01660	US	12967807	Dec 14, 2010	Systems and Methods for Synthesizing High Resolution Images Using Super-Resolution Processes	Dan Lelencu, Gabriel Molina, Karik Venkataraman	US-2012-0147205-A1	8878950	Nov 4, 2014	Issued	Pelican Image Processing Pipeline Cases
01660 C.A.	CA	2831965	Dec 14, 2011	System and Methods for Synthesizing High Resolution Images Using Super-Resolution Processes	Dan Lelencu, Gabriel Molina, Karik Venkataraman				Pending	Pelican Image Processing Pipeline Cases
01660 CON	US	14519659	Oct 21, 2014	Systems and Methods for Synthesizing High Resolution Images Using Images Captured by an Array of Independently Controllable Imagers	Dan Lelencu, Gabriel Molina, Karik Venkataraman	US-2015-0036014-A1	9361662	Jun 7, 2016	Issued	Pelican Image Processing Pipeline Cases
01660 CON2	US	14520266	Oct 21, 2014	Systems and Methods for Synthesizing High Resolution Images Using a Set of	Dan Lelencu, Gabriel Molina, Karik Venkataraman	US-2015-0042853-A1	9047684	Jun 2, 2015	Issued	Pelican Calibration Cases

				Geometrically Registered Images						
01660.CCNC3	US	14520269	Oct 21, 2014	Systems and Methods for Dynamic Refocusing of High Resolution Images Generated Using Images Captured by a plurality of imagers	Dan Lelescu, Gabriel Molina, Karik Venkataramm	US-2015-0036015-A1	9048824	May 26, 2015	Issued	Pelican Image Processing Pipeline Cases
01660.CCNC4	US	14170788	Jun 1, 2016	Systems and Methods for Synthesizing High Resolution Images Using Images Captured by an Array of Independently Controllable Images	Dan Lelescu, Gabriel Molina, Karik Venkataramm				Pending	Pelican Image Processing Pipeline Cases
01660.EP	EP	118483089	Dec 14, 2011	System and Methods for Synthesizing High Resolution Images Using Super-Resolution Processes	Dan Lelescu, Gabriel Molina, Karik Venkataramm	EP 2652678			Published	Pelican Image Processing Pipeline Cases
01660.SG	SG	2013045703	Dec 14, 2011	System and Methods for Synthesizing High	Dan Lelescu, Gabriel Molina, Karik Venkataramm		191151	Mar 3, 2015	Issued	Pelican Image Processing Pipeline Cases

01883	US	12952106	Nov 22, 2010	Resolution Images Using Super-Resolution Processes	Jacques Duparre	US-2011-0122308-A1	8514491	Aug 20, 2013	Issued	Pelican Optics Cases
01883 CON4	US	13948054	Jul 22, 2012	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Images	Jacques Duparre	US-2013-0308197-A1	8861059	Oct 14, 2014	Issued	Pelican Array Camera Architecture Cases
01883 CON2	US	14475461	Sep 2, 2014	Capturing and Processing of Images Including Occlusions Captured by Heterogeneous Camera Arrays	Jacques Duparre	US-2014-0368686-A1	9264610	Feb 16, 2016	Issued	Pelican Array Camera Architecture Cases
01883 CON3	US	15043997	Feb 15, 2016	Capturing and Processing of Images Including Occlusions Captured by Heterogeneous Camera Arrays	Jacques Duparre	US-2016-0269664-A1			Published	Pelican Array Camera Architecture Cases
01883 EP	EP	108325304	Nov 22, 2010	Capturing and Processing of Images Using Monolithic	Karik Venkatarman, Ananddeep S. Jabb, Robert H	2562113			Pending	Pelican Optics Cases

01853.TW	TW	099147177	Nov 22, 2010	Camera Array with Heterogeneous Images	Mullis, Jr., Jacques Dupure, Shane Chung-Feng Hu	201226382	1535592	May 21, 2016	Issued	Pelican Optics Cases
01950	US	12952134	Nov 22, 2010	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Images	Karik Veethanman, Arandeep S. Jabbi, Robert H. Mullis, Jr., Jacques Dupure	US-2011-0080467-A1	8869920	Oct 21, 2014	Issued	Pelican Array Camera Architecture Cases
01950.CON	US	14459276	Aug 13, 2014	Camera Arrays Incorporating 3 x 3 Image Configurations	Karik Veethanman, Arandeep S. Jabbi, Robert H. Mullis, Jr., Jacques Dupure, Shane Chung-Feng Hu	US-2014-0354843-A1	9049411	Jun 2, 2015	Issued	Pelican Array Camera Architecture Cases
01950.CON2	US	14459280	Aug 13, 2014	Capturing and Processing of Images Including Occlusions Captured by Arrays of Luma and Chroma Channels	Karik Veethanman, Arandeep S. Jabbi, Robert H. Mullis, Jr., Jacques Dupure, Shane Chung-Feng Hu	US-2014-0347509-A1	9124815	Sep 1, 2015	Issued	Pelican Array Camera Architecture Cases

01950.CON3	US	14459282	Aug 13, 2014	Systems and Methods for Generating Depth Maps Using A Set of Images Containing A Baseline Image	Karik Venkataramu, Arunadeep S. Jabbi, Robert H Mullis, Jr., Jacques Duparre, Shane Ching-Feng Hu	US-2014-0355870-A1	9094661	Jul 28, 2015	Issued	Pelican Image Processing Pipeline Cases
01950.CON4	US	14459283	Aug 13, 2014	Systems and Methods for Synthesizing Higher Resolution Images Using a Set of Images Containing a Baseline Image	Karik Venkataramu, Arunadeep S. Jabbi, Robert H Mullis, Jr., Jacques Duparre, Shane Ching-Feng Hu	US-2014-0354853-A1	9085233	Jun 9, 2015	Issued	Pelican Image Processing Pipeline Cases
01950.CON5	US	14459286	Aug 13, 2014	Capturing and Processing of Images Including Occlusions Captured by Camera Arrays	Karik Venkataramu, Arunadeep S. Jabbi, Robert H Mullis, Jr., Jacques Duparre, Shane Ching-Feng Hu	US-2014-0354854-A1	9191580	Nov 17, 2015	Issued	Pelican Image Processing Pipeline Cases
01950.CON6	US	14459288	Aug 13, 2014	Systems and Methods for Normalizing Image Data Captured by Camera Arrays	Karik Venkataramu, Arunadeep S. Jabbi, Robert H Mullis, Jr., Jacques Duparre, Shane Ching-Feng Hu	US-2014-0354773-A1	9099381	Jun 2, 2015	Issued	Pelican Calibration Cases
01950.CON7	US	14704920	May 5, 2015	Capturing and Processing of Images Including Occlusions	Karik Venkataramu, Arunadeep S. Jabbi, Robert H Mullis, Jr.	US-2015-0254151-A1	9186765	Nov 17, 2015	Issued	Pelican Array Camera Architecture Cases

01930.CCN8	US	14943009	Nov 16, 2015	Focused on an Image Sensor by a Lens Stack Array	Jacques Duparre, Shane Ching-Feng Hu	US-2016-0269650-A1			Published	Pelican Array Camera Architecture Cases
02014	US	12050129	Mar 17, 2011	Fabrication Process for Mastering Image Lens Arrays	Jacques Duparre	US-2011-0241234-A1	8231814	Jul 31, 2012	Issued	Pelican Optics Cases
02014.EP	EP	117530010	Mar 17, 2011	Fabrication Process for Mastering Image Lens Arrays	Jacques Duparre	2548071			Published	Pelican Optics Cases
02014.JP	JP	2011350207	Mar 17, 2011	Fabrication Process for Mastering Image Lens Arrays	Jacques Duparre	P2011-523681A			Pending	Pelican Optics Cases
02014.KR	KR	1020127027121	Mar 17, 2011	Fabrication Process for Mastering Image Lens Arrays	Jacques Duparre	10-2013-0004305			Published	Pelican Optics Cases
02014.SG	SG	2012066938	Mar 17, 2011	Fabrication Process for Mastering Image Lens Arrays	Jacques Duparre		184118	Jul 31, 2015	Issued	Pelican Optics Cases
02075.CN	CN	2011800812879	May 12, 2011	Architectures for Image Arrays and	Bedaride Paul, Andrew Kenneth John	CN103003180A			Published	Pelican Sensor Architecture Cases

02073.CON	US	15159876	May 19, 2016	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 Paul, Andrew Kenneth John McMahon			Pending	Pelican Sensor Architecture Cases	
02073.EP	EP	117813139	May 12, 2011	Architectures for Imager Arrays and Array Cameras	Bedabrata Paul, Andrew Kenneth John McMahon	23669935		Published	Pelican Sensor Architecture Cases	
02075.JP	JP	2013510321	Nov 9, 2012	Architectures for Imager Arrays and Array Cameras	Bedabrata Paul, Andrew Kenneth John McMahon	2013-526801	5848754	Dec 4, 2015	Issued	Pelican Sensor Architecture Cases
02075.KR	KR	1020127032552	May 12, 2011	Architectures for Imager Arrays and Array Cameras	Bedabrata Paul, Andrew Kenneth John McMahon			Pending	Pelican Sensor Architecture Cases	
02075.SG.DIV	SG	10201503516V	May 12, 2011	Architectures for Imager Arrays and Array Cameras	Bedabrata Paul, Andrew Kenneth John McMahon			Published	Pelican Sensor Architecture Cases	
02088	US	13470252	May 11, 2012	Systems and Methods for Transmitting and Receiving Array Camera Image Data	Andrew Kenneth John McMahon	US-2012-0287291-A1	8305456	May 6, 2012	Issued	Pelican Sensor Interface/Control Cases
02088.CN	CN	2012810293995	May 11, 2012	Systems and Methods for Transmitting Array Camera Image Data	Andrew Kenneth John McMahon	CN103765864A			Published	Pelican Sensor Interface/Control Cases

02088.CON	US	13668157	Nov 2, 2012	Systems and Methods for Transmitting and Receiving Array Camera Image Data	Andrew Kenneth John McMahon	US-2013-0057710-A1	8692893	Apr 8, 2014	Issued	Pelican Sensor Interface/Control Cases
02088.CON2	US	14246948	Apr 7, 2014	Systems and Methods for Transmitting and Receiving Array Camera Image Data	Andrew Kenneth John McMahon	US-2014-0218596-A1	9197821	Nov 24, 2015	Issued	Pelican Sensor Interface/Control Cases
02088.CON3	US	14936199	Nov 9, 2015	Systems and Methods for Transmitting and Receiving Array Camera Image Data	Andrew Kenneth John McMahon	US-2016-0269626-A1			Published	Pelican Sensor Interface/Control Cases
02088.EP	EP	12782936	May 11, 2012	Systems and Methods for Transmitting Array Camera Data	Andrew Kenneth John McMahon	2708019			Pending	Pelican Sensor Interface/Control Cases
02088.JP	JP	2014310522	May 11, 2012	Systems and Methods for Transmitting Array Camera Data	Andrew Kenneth John McMahon	2014-519741			Published	Pelican Sensor Interface/Control Cases
02088.KR	KR	1020137032457	May 11, 2012	Systems and Methods for Transmitting Array Camera Data	Andrew Kenneth John McMahon				Pending	Pelican Sensor Interface/Control Cases
02101	US	13106504	May 12, 2011	Image Array Interfaces	Andrew Kenneth John McMahon	US-2011-0279721-A1	8928793	Jan 6, 2015	Issued	Pelican Sensor Interface/Control Cases
02101.CON2	US	14880907	Oct 12, 2015	Image Array Interfaces	Andrew Kenneth John McMahon	US-2016-0269627-A1			Published	Pelican Sensor Interface/Control Cases

02113	US	13816520	Jun 28, 2012	Optical Arrangements for Use with an Army Camera	McMahon Jacques Duparre	US-2013-0003184-A1	8804255	Aug 12, 2014	Issued	Pelican Optics Cases
02115 CIP	US	13832120	Mar 15, 2013	Optical Arrangements for Use with an Army Camera	Jacques Duparre, Dan Lelescu, Karik Venkataraman	US-2013-0265459-A1			Published	Pelican Optics Cases
02115 CIP COM	US	14703919	May 6, 2015	Army Cameras Incorporating Optics with Modulation Transfer Functions Greater than Sensor Nyquist Frequency for Capture of Images used in Super-Resolution Processing	Jacques Duparre, Dan Lelescu, Karik Venkataraman	US-2015-0244934-A1			Allowed	Pelican Optics Cases
02115 CIP CON2	US	14705925	May 6, 2015	Army Cameras Incorporating Monolithic Array Camera Modules with High MTF Lens Stacks for Capture of Images Used in Super-Resolution Processing	Jacques Duparre, Dan Lelescu, Karik Venkataraman	US-2015-0296137-A1			Allowed	Pelican Optics Cases
02115 DIV	US	14281534	May 19, 2014	Optical Arrangements for Use with an Army Camera	Jacques Duparre	US-2014-0347748-A1	9128228	Sep 8, 2015	Issued	Pelican Optics Cases

02115.EP	EP	128042660	Jun 25, 2012	Optical Arrangements for Use with an Array Camera	Jacques Dupure	2726930			Pending	Pelican Optics Cases
02115.JP	JP	2014518889	Jun 25, 2012	Optical Arrangements for Use with an Array Camera	Jacques Dupure	2014-521117			Published	Pelican Optics Cases
02115.KR	KR	1020137035076	Jun 25, 2012	Optical Arrangements for Use with an Array Camera	Jacques Dupure				Pending	Pelican Optics Cases
02115.SG	SG	2013083191	Jun 25, 2012	Optical Arrangements for Use with an Array Camera	Jacques Dupure		2013092131	Dec 2, 2014	Issued	Pelican Optics Cases
02337.CN	CN	2012810575879	Oct 11, 2012	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Dupure	CN104185808A			Published	Pelican Optics Cases
02337.CON	US	14868942	Sep 29, 2013	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Dupure	US-2016-0165108-A1			Published	Pelican Optics Cases
02337.EP	EP	128398211	Oct 11, 2012	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Dupure	2766767			Pending	Pelican Optics Cases
02337.KR	KR	1020147012405	Oct 11, 2012	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Dupure				Pending	Pelican Optics Cases

02371A.SG	SG	11201401363U	Oct 11, 2012	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Duparre				Pending	Pelican Optics Cases
02371A.CON	US	13048369	Feb 19, 2016	Systems and Methods for Controlling Aliasing in Images Captured by an Array Camera for use in Super Resolution Processing Using Pixel Apertures	Shree Nayar, Karik Venkatarman, Bedabrata Pain, Dan Lelescu				Pending	Pelican Array Camera Architecture Cases
02376A	US	13631731	Sep 28, 2012	Systems and Methods For Encoding Light Field Image Files	Karik Venkatarman, Semyon Misenzon, Dan Lelescu	US-2013-0077880-A1	9/12/13	Sep 8, 2015	Issued	Pelican Light Field Image File Format Cases
02376A.CON	US	14667495	Mar 24, 2015	Systems and Methods For Encoding Light Field Image Files	Karik Venkatarman, Semyon Misenzon, Dan Lelescu	US-2015-0199793-A1			Published	Pelican Light Field Image File Format Cases
02376A.CON2	US	14477396	Sep 4, 2014	Systems and Methods for Encoding Structured Light Field Image Files	Karik Venkatarman, Semyon Misenzon, Dan Lelescu	US-2014-0369612-A1	9/16/14	May 19, 2015	Issued	Pelican Light Field Image File Format Cases
02376A.CON3	US	14304684	Oct 2, 2014	Systems and Methods for Encoding Light Field Image Files Having a Depth Map	Karik Venkatarman, Semyon Misenzon, Dan Lelescu	US-2015-0055884-A1	9/03/14	May 12, 2015	Issued	Pelican Light Field Image File Format Cases

02376A.CON4	US	14481241	Sep 9, 2014	Systems and Methods for Encoding Light Field Image Files Having Depth and Confidence Maps	Kartik Venkatarman, Semyon Misenzon, Dan Lelescu	US-2014- 0376825-A1	9031335	May 12, 2015	Issued	Pelican Light Field Image File Format Cases
02376A.CON5	US	14481270	Sep 9, 2014	Systems and Methods For Encoding Relocusable Light Field Image Files	Kartik Venkatarman, Semyon Misenzon, Dan Lelescu	US-2015- 0003753-A1	9031342	May 12, 2015	Issued	Pelican Light Field Image File Format Cases
02376A.CON6	US	14667503	Mar 24, 2015	Systems and Methods For Encoding Light Field Image Files Having Low Resolution Images	Kartik Venkatarman, Semyon Misenzon, Dan Lelescu	US-2015- 0199794-A1			Published	Pelican Light Field Image File Format Cases
02376A.B-CN	CN	2012800557669	Sep 28, 2012	Systems and Methods for Encoding and Decoding Light Field Image Files	Kartik Venkatarman, Semyon Misenzon	CN104081414A			Published	Pelican Light Field Image File Format Cases
02376A.B-EP	EP	128350410	Sep 28, 2012	Systems and Methods for Encoding and Decoding Light Field Image Files	Kartik Venkatarman, Semyon Misenzon	2761534			Published	Pelican Light Field Image File Format Cases
02376A.B-IN	IN	2708CHENP2014	Sep 28, 2012	Systems and Methods for Encoding and Decoding Light Field Image Files	Kartik Venkatarman, Semyon Misenzon				Published	Pelican Light Field Image File Format Cases

02376AB JP	JP	2014531435	Sep 28, 2012	Systems and Methods for Encoding and Decoding Light Field Image Files	Karik Venkataraman, Semyon Misenzon	2014-535191			Published	Pelican Light Field Image File Format Cases
02376AB KR	KR	1020137011449	Sep 28, 2012	Systems and Methods for Encoding and Decoding Light Field Image Files	Karik Venkataraman, Semyon Misenzon				Pending	Pelican Light Field Image File Format Cases
02376B	US	13631736	Sep 28, 2012	Systems and Methods for Decoding Light Field Image Files	Karik Venkataraman, Semyon Misenzon	US-2013-0077862-A1	8542935	Sep 24, 2013	Issued	Pelican Light Field Image File Format Cases
02376B CON	US	13855411	Jul 31, 2013	Systems and Methods for Decoding Light Field Image Files	Karik Venkataraman, Semyon Misenzon	US-2013-0315494-A1	8831367	Sep 9, 2014	Issued	Pelican Light Field Image File Format Cases
02376B CON2	US	14477374	Sep 4, 2014	Systems and Methods for Decoding Structured Light Field Image Files	Karik Venkataraman, Semyon Misenzon, Dan Lelescu	US-2014-0369615-A1	9036831	May 19, 2015	Issued	Pelican Light Field Image File Format Cases
02376B CON3	US	14504667	Oct 2, 2014	Systems and Methods for Decoding Light Field Image Files Using a Depth Map	Karik Venkataraman, Semyon Misenzon, Dan Lelescu	US-2015-0015609-A1	9042667	May 26, 2015	Issued	Pelican Light Field Image File Format Cases
02376B CON4	US	14481291	Sep 9, 2014	Systems and Methods for Decoding Light Field Image Files Having Depth Confidence	Karik Venkataraman, Semyon Misenzon, Dan Lelescu	US-2014-0376826-A1	9023894	May 5, 2015	Issued	Pelican Light Field Image File Format Cases

[illegible]

02408.CON	US	14876034	Oct 8, 2015	Generating Images from Light Fields Utilizing Virtual Viewpoints	Semyon Nisenzon, Ankur K. Jain	US-2016-0255333-A1		Published	Pelican User Interface Cases
02408.EP	EP	138416136	Sep 30, 2013	Generating Images from Light Fields Utilizing Virtual Viewpoints	Ankur K. Jain, Semyon Nisenzon	2901671		Published	Pelican User Interface Cases
02409	US	14028278	Sep 16, 2013	Systems and Methods for Correcting User Identified Artifacts in Light Field Images	Karik Venkatesan, Florian Ciurea	US-2014-0079336-A1	9214013	Issued Dec 15, 2015	Pelican User Interface Cases
02472.CN	CN	201380049828X	Aug 23, 2013	Feature Based High Resolution Motion Estimation from Low Resolution Images Captured Using an Array Source	Dan Lalescu, Ankur K. Jain	CN104685313A		Published	Pelican Image Processing Pipeline Cases
02472.CON	US	14933671	Nov 5, 2015	Feature Based High Resolution Motion Estimation from Low Resolution Images Captured Using an Array Source	Dan Lalescu, Ankur K. Jain	US-2016-0165134-A1		Published	Pelican Image Processing Pipeline Cases

02472.EP	EP	138317680	Aug 23, 2013	Feature Based High Resolution Motion Estimation from Low Resolution Images Captured Using an Array Source	Dan Lelescu, Ankur K. Jain	2888698			Pending	Pelican Image Processing Pipeline Cases
02472.JN	JN	1488DELNP2015	Aug 23, 2013	Feature Based High Resolution Motion Estimation from Low Resolution Images Captured Using an Array Source	Dan Lelescu, Ankur K. Jain				Pending	Pelican Image Processing Pipeline Cases
02513	US	14204990	Mar 11, 2014	Systems and Methods for Image Data Compression	Andrew Kenneth John McMahon, Karthik Venkatarman				Allowed	Pelican Sensor Interface/Control Cases
02525	US	13875248	May 1, 2013	Camera Modules Patterned with PI Filter Groups	Semyon Nisenzon, Karthik Venkatarman	US-2013-0293700-A1	9210392	Dec 8, 2015	Issued	Pelican Array Camera Architecture Cases
02525.CN	CN	2013800292037	May 1, 2013	Camera Modules Patterned with pi Filter Groups	Semyon Nisenzon, Karthik Venkatarman	CN104335246A			Published	Pelican Array Camera Architecture Cases
02525.CON	US	14953195	Nov 25, 2015	Camera Modules Patterned with PI Filter	Semyon Nisenzon, Karthik Venkatarman	US-2016-0165147-A1			Published	Pelican Array Camera Architecture Cases

02525.EP	EP	137852208	May 1, 2013	Camera Modules Patterned with pi Filter Groups	Semyon Nisenzon, Karik Venkataraman	2845167				Pending	Pelican Array Camera Architecture Cases
03525.JP	JP	2015310443	May 1, 2013	Camera Modules Patterned with pi Filter Groups	Semyon Nisenzon, Karik Venkataraman	2015-521411				Published	Pelican Array Camera Architecture Cases
02530.CN	CN	2013800410955	Jun 14, 2013	Systems and Methods for Manufacturing Camera Modules Using Active Alignment of Lens Stack Arrays and Sensors	Jacques Duparre, Andrew Kenneth John McMahon, Dan Lelescu	CN104520754A				Published	Pelican Array Camera Module Manufacturing Cases
02530.CCN	US	13004759	Jan 22, 2016	Systems and Methods for Manufacturing Camera Modules Using Active Alignment of Lens Stack Arrays and Sensors	Jacques Duparre, Andrew Kenneth John McMahon, Dan Lelescu	US-2016-0266284-A1				Published	Pelican Array Camera Module Manufacturing Cases
02530.EP	EP	138104294	Jun 14, 2013	Systems and Methods for Manufacturing Camera Modules Using Active Alignment of Lens Stack Arrays and Sensors	Jacques Duparre, Andrew Kenneth John McMahon, Dan Lelescu	2867718				Pending	Pelican Array Camera Module Manufacturing Cases

				Sensors						
02530.JP	JP	2015530272	Jun 14, 2013	Systems and Methods for Manufacturing Camera Modules Using Active Alignment of Lens Stack Arrays and Sensors	Jacques Duparre, Andrew Kenneth John McMahon, Dan Lelescu	2015-523178			Published	Pelican Array Camera Module Manufacturing Cases
02530.6.R	K.R.	1020157002415	Jun 14, 2013	Systems and Methods for Manufacturing Camera Modules Using Active Alignment of Lens Stack Arrays and Sensors	Jacques Duparre, Andrew Kenneth John McMahon, Dan Lelescu				Pending	Pelican Array Camera Module Manufacturing Cases
02531	US	14193675	Mar 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	Jacques Duparre				Pending	Pelican Array Camera Module Manufacturing Cases

02554, PRO	US			an Active Alignment Process					Unfiled	Pelican User Interface Cases
				Systems and Methods for Using Profiles and Silhouette Edges Generated Using a Depth Map to Aid Visual Search						
02553	US	14079310	Nov 13, 2013	Systems and Methods for Array Camera Focal Plane Control	Andrew Kenneth John McMahon	US-2014-0132810-A1	9143711	Sep 22, 2015	Issued	Pelican Sensor Interface/Control Cases
02553, CON	US	14855715	Sep 16, 2015	Systems and Methods for Array Camera Focal Plane Control	Andrew Kenneth John McMahon	US-2016-0249001-A1			Published	Pelican Sensor Interface/Control Cases
02556	US	14200629	Mar 7, 2014	Systems and Methods for Synthesizing High Resolution Images Using Image Deconvolution Based on Motion and Depth Information	Theng Dzung, Dan Lelescu		9445003	Sep 13, 2016	Issued	Pelican Image Processing Pipeline Cases

02556.CON	US	15258947	Sep 7, 2016	Systems and Methods for Synthesizing High Resolution Images Using Image Deconvolution Based on Motion and Depth Information	Dan Lelescu, Thang Duong			Pending	
02558.PRO	US			Systems and Methods for Performing Video Autofocus Using Object Detection				Unfiled	Pelican Image Processing Pipeline Cases
02559	US	14199977	Mar 6, 2014	Systems and Methods for Providing an Array Projector	Jacques Depierre	US-2014-0267286-A1		Published	Pelican Array Projector Cases
02559.CON	US	15287602	Oct 6, 2016	Systems and Methods for Providing an Array Projector	Jacques Depierre			Pending	
02637	US	13831724	Jun 28, 2013	Systems and Methods for Detecting Defective Camera Arrays and Optic Arrays	Jacques Depierre, Andrew Kenneth John McMahon, Dan Lelescu, Karik Veetharanan, Gabriel Molina	US-2014-0902675-A1	9109635	Aug 4, 2015	Pelican Array Camera Module Manufacturing Cases
02637.CON	CN	2013800402380	Jun 28, 2013	Systems and Methods for Detecting Defective Camera Arrays, Optic Arrays	Jacques Depierre, Andrew Kenneth John McMahon, Dan Lelescu, Karik	CN104508681A		Published	Pelican Array Camera Module Manufacturing Cases

				and Sensors	Venkataraman, Gabriel Molina					
02637.DIV	US	14805412	Jul 21, 2015	Systems and Methods for Detecting Defective Camera Arrays and Optic Arrays	Jacques Duparre, Andrew Kenneth John McMahon, Dan Lelescu, Karik Venkataraman, Gabriel Molina	US-2015- 0326852-A1			Published	Pelican Array Camera Module Manufacturing Cases
02637.EP	EP	138102298	Jun 28, 2013	Systems and Methods for Detecting Defective Camera Arrays, Optic Arrays and Sensors	Jacques Duparre, Andrew Kenneth John McMahon, Dan Lelescu, Karik Venkataraman, Gabriel Molina	2873038			Pending	Pelican Array Camera Module Manufacturing Cases
02637.JP	JP	2015520605	Jun 28, 2013	Systems and Methods for Detecting Defective Camera Arrays, Optic Arrays and Sensors	Jacques Duparre, Andrew Kenneth John McMahon, Dan Lelescu, Karik Venkataraman, Gabriel Molina	2015-534734			Published	Pelican Array Camera Module Manufacturing Cases
02637.KR	KR	1020157002308	Jun 28, 2013	Systems and Methods for Detecting Defective Camera Arrays, Optic Arrays and Sensors	Jacques Duparre, Andrew Kenneth John McMahon, Dan Lelescu, Karik Venkataraman, Gabriel Molina				Pending	Pelican Array Camera Module Manufacturing Cases

02663	US	13972881	Aug 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, Karik Venkatarman, Gabriel Molina, Dan Lelescu		8619082	Dec 31, 2013	Issued	Pelican Image Processing Pipeline Cases
02663.AU	AU	2013303770	Aug 21, 2013	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Karik Venkatarman, Gabriel Molina, Dan Lelescu, Florian Ciurea				Pending	Pelican Image Processing Pipeline Cases
02663.CA	CA	3881131	Aug 21, 2013	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Karik Venkatarman, Gabriel Molina, Dan Lelescu, Florian Ciurea				Pending	Pelican Image Processing Pipeline Cases
02663.CN	CN	2013800487355	Aug 21, 2013	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Karik Venkatarman, Gabriel Molina, Dan Lelescu, Florian Ciurea	CN104662589A			Published	Pelican Image Processing Pipeline Cases

02663.CON1	US	14144438	Dec 30, 2013	Systems and Methods for Performing Depth Estimation using Image Data from Multiple Spectral Channels	Florian Ciurea, Karthik Venkatarman, Gabriel Molina, Dan Lelescu	US-2013- 0049915-A1	8780113	Jul 15, 2014	Issued	Pelican Image Processing Pipeline Cases
02663.CON2	US	14326364	Oct 28, 2014	Systems and Methods for Generating Depth Maps and Corresponding Confidence Maps Indicating Depth Estimation Reliability	Florian Ciurea, Karthik Venkatarman, Gabriel Molina, Dan Lelescu	US-2013- 0049915-A1	8123117	Sep 1, 2015	Issued	Pelican Image Processing Pipeline Cases
02663.CON3	US	14339754	Jul 11, 2014	Systems and Methods for Measuring Depth Using an Array of Independently Controllable Cameras	Florian Ciurea, Karthik Venkatarman, Gabriel Molina, Dan Lelescu	US-2014- 0321712-A1	9240049	Jan 19, 2016	Issued	Pelican Image Processing Pipeline Cases
02663.CON5	US	14526377	Oct 28, 2014	System and Methods for Measuring Depth Using an Array Camera Employing a Bayer Filter	Florian Ciurea, Karthik Venkatarman, Gabriel Molina, Dan Lelescu	US-2015- 0042766-A1	9123118	Sep 1, 2015	Issued	Pelican Image Processing Pipeline Cases

02663.CON6	US	14526392	Oct 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, Karik Venkateshram, Gabriel Molina, Dan Lelescu	US-2015- 0049916-A1	9235900	Jan 12, 2016	Issued	Pelican Image Processing Pipeline Cases
02663.CON7	US	14326398	Oct 28, 2014	Systems and Methods for Measuring Depth in the Presence of Occlusions Using a Subset of Images	Florian Ciurea, Karik Venkateshram, Gabriel Molina, Dan Lelescu	US-2015- 0049917-A1	9147254	Sep 29, 2015	Issued	Pelican Image Processing Pipeline Cases
02663.CON8	US	14326407	Oct 28, 2014	Systems and Methods for Measuring Depth Based Upon Occlusion Patterns in Images	Florian Ciurea, Karik Venkateshram, Gabriel Molina, Dan Lelescu	US-2015- 0042787-A1	9129377	Sep 8, 2015	Issued	Pelican Image Processing Pipeline Cases
02663.CON9	US	14988680	Jan 5, 2016	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, Karik Venkateshram, Gabriel Molina, Dan Lelescu	US-2016- 0267872-A1			Published	Pelican Image Processing Pipeline Cases

02663, EP	EP	138369455	Aug 21, 2013	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Karik Venkatarman, Gabriel Molina, Dan Lelescu, Florian Ciurea	2888720		Published	Pelican Image Processing Pipeline Cases
02663, KR	KR	1020157006-433	Aug 21, 2013	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Karik Venkatarman, Gabriel Molina, Dan Lelescu, Florian Ciurea			Pending	Pelican Image Processing Pipeline Cases
02663, SG	SG	11201500910R	Aug 21, 2013	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Karik Venkatarman, Gabriel Molina, Dan Lelescu, Florian Ciurea	11201500910R	Oct 15, 2015	Issued	Pelican Image Processing Pipeline Cases
02723	US	14186871	Feb 21, 2014	Systems and Methods for Generating Compressed Light Field Representation Data Using Captured Light Fields, Array Geometry, and Parallax Information	Karik Venkatarman, Dan Lelescu, Gabriel Molina	US-2014-0232822-A1	Oct 4, 2016	Issued	Pelican Light Field Image File Format Cases
02723, CN	US	13253605	Aug 31, 2016	Systems and Methods for Generating Compressed Light Field	Karik Venkatarman, Dan Lelescu, Gabriel Molina			Pending	

02766	US	14188531	Feb 24, 2014	Representation Data using Captured Light Fields, Array Geometry, and Parallax Information	Karik Venkataraman, Paul Gallagher, Dan Lelescu, Andrew Kenneth John McMahon, Jacques Duparre	US-2014-0240528-A1	9374512	Jan 21, 2016	Issued	Pelican Array Camera Architecture Cases
02766.A1A	US	14188524	Feb 24, 2014	Thin Form Factor Computational Array Cameras and Modular Array Cameras	Karik Venkataraman, Paul Gallagher, Dan Lelescu, Andrew Kenneth John McMahon, Jacques Duparre, Beekunna Pain	US-2014-0240529-A1	9233380	Feb 2, 2016	Issued	Pelican Array Camera Architecture Cases
02766.A1A.COM	US	15013044	Feb 1, 2016	Thin Form Factor Computational Array Cameras and Modular Array Cameras	Karik Venkataraman, Paul Gallagher, Dan Lelescu, Andrew Kenneth John McMahon, Jacques Duparre, Beekunna Pain	US-2016-0269851-A1			Published	Pelican Array Camera Architecture Cases

02766.CON	US	15136166	Apr 22, 2016	Thin Form Factor Computational Array Cameras and Modular Array Cameras	Karrik Venkatesan, Paul Gallagher, Dan Lelescu, Andrew Kenneth John McMahon, Jacques Duparre	US-2014-0357738-A1	8866912	Oct 31, 2014	Issued	Pelican Army Camera Architecture Cases
02772	US	13792143	Mar 10, 2013	System and Methods for Calibration of an Array Camera Using a Single Captured Image	Robert H. Mullis	US-2014-0035992-A1	8866912	Oct 31, 2014	Issued	Pelican Calibration Cases
02772.CON	US	14519005	Oct 20, 2014	System and Methods for Calibration of an Array Camera	Robert H. Mullis	US-2015-0035992-A1	9124864	Sep 1, 2015	Issued	Pelican Calibration Cases
02772.CON2	US	14641651	Aug 31, 2015	System and Methods for Calibration of an Array Camera	Robert H. Mullis	US-2016-0165212-A1			Published	Pelican Calibration Cases
02814	US	14776509	Mar 11, 2014	Array Camera Architecture Implementing Quantum Film Image Sensors	Jacques Duparre	US-2016-0037087-A1			Published	Pelican Army Camera Architecture Cases
02815	US	14441303	May 7, 2015	Array Camera Architecture Implementing Quantum Dot Color Filters	Karrik Venkatesan, Jacques Duparre, Robert H. Mullis	US-2015-0312453-A1			Allowed	Pelican Army Camera Architecture Cases

02816	US	14776553	Mar 12, 2014	Systems and Methods for Reducing Motion Blur in Images or Video in Ultra Low Light with Array Cameras	Gabriel Molins	US-2016-0044252-A1		Allowed	Pelican Image Processing Pipeline Cases
02817	US	14773748	Sep 8, 2015	Systems and Methods for Measuring Scene Information While Capturing Images Using Array Cameras	Florian Ciura, Karik Venkatarman	US-2016-0044257-A1		Published	Pelican Image Processing Pipeline Cases
02818	US	14773742	Sep 8, 2015	Systems and Methods for High Dynamic Range Imaging Using Array Cameras	Florian Ciura, Karik Venkatarman	US-2016-0057332-A1		Published	Pelican Image Processing Pipeline Cases
02822	US	14745734	Dec 31, 2013	Extended Color Processing on Pelican Array Cameras	Robert H. Mullis, Dan Leltescu, Karik Venkatarman	US-2014-0267762-A1		Allowed	Pelican Array Camera Architecture Cases
02824	US	14716968	Mar 17, 2014	Systems and Methods for Stereo Imaging with Camera Arrays	Karik Venkatarman, Paul Gallagher, Ankur K. Jain, Semyon Nisenzon	US-2014-0267633-A1	9438888	Sep 8, 2016 Issued	Pelican Array Camera Architecture Cases
02824.CON	US	14705885	May 6, 2015	Systems and Methods for Estimating Depth Using Stereo Array Cameras	Karik Venkatarman, Paul Gallagher, Ankur K. Jain, Semyon Nisenzon	US-2015-0245913-A1		Published	Pelican Array Camera Architecture Cases

02824.CONZ	US	14705903	May 6, 2015	Systems and Methods for Estimating Depth using Ad Hoc Stereo Array Cameras	Karrik Venkataraman, Paul Gallagher, Ankit K. Jain, Semyon Misenzen	US-2015-0237329-A1		Published	Pelican Army Camera Architecture Cases	
02824.EP	EP	147630875	Mar 17, 2014	Systems and Methods for Stereo Imaging with Cameras Arrays	Karrik Venkataraman, Paul Gallagher, Ankit K. Jain, Semyon Misenzen	2973476		Published	Pelican Army Camera Architecture Cases	
02824.JP	JP	2016503443	Mar 17, 2014	Systems and Methods for Stereo Imaging with Cameras Arrays	Karrik Venkataraman, Paul Gallagher, Ankit K. Jain, Semyon Misenzen	2016-524123		Published	Pelican Army Camera Architecture Cases	
02835	US	14207254	Mar 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	Karrik Venkataraman, Semyon Misenzen, Priyam Chatterjee, Gabriel Molina	US-2014-0267243-A1		Allowed	Pelican Image Processing Pipeline Cases	
02865	US	14203308	Mar 10, 2014	Systems and Methods for Calibration of an Array Camera	Robert H. Mullis	US-2014-0285675-A1	9124831	Sep 1, 2015	Issued	Pelican Calibration Cases

02865.CON	US	14841694	Aug 31, 2015	System and Methods for Calibration of an Array Camera	Robert H. Mullis	US-2016-0163051-A1		Published	Pelican Calibration Cases
02866	US	14213897	Mar 14, 2014	Systems and Methods for Photometric Normalization in Array Cameras	Andrew Kenneth John McMahon, Dan Lelescu, Florian Ciurea	US-2014-0267829-A1	9100586	Aug 4, 2015 Issued	Pelican Calibration Cases
02866.CON	US	14814291	Jul 30, 2015	Systems and Methods for Photometric Normalization in Array Cameras	Andrew Kenneth John McMahon, Dan Lelescu, Florian Ciurea	US-2016-0198096-A1		Published	Pelican Calibration Cases
02871	US	13802507	Mar 13, 2013	Systems and Methods for Controlling Aliasing in Images Captured by an Array Camera for use in Super-Resolution Processing	Dan Lelescu, Karthik Venkatarman	US-2014-0267890-A1	9106784	Aug 11, 2015 Issued	Pelican Array Camera Architecture Cases
02871.CON	US	14814297	Jul 30, 2015	Systems and Methods for Controlling Aliasing in Images Captured by an Array Camera for use in Super-Resolution Processing	Dan Lelescu, Karthik Venkatarman	US-2016-0195733-A1		Published	Pelican Array Camera Architecture Cases

03119	US	14535279	Nov 26, 2014	Array Camera Configurations Incorporating Multiple Constituent Array Cameras	Karik Venkataraman, Jacques Duparre	US-2015-0146029-A1	9426361	Aug 23, 2016	Issued	Pelican Array Camera Architecture Cases
03119 CON	US	14535368	Nov 26, 2014	Array Camera Configurations Incorporating Constituent Array Cameras and Constituent Cameras	Karik Venkataraman, Jacques Duparre	US-2015-0146030-A1	9456134	Sep 27, 2016	Issued	Pelican Array Camera Architecture Cases
03119 CON2	US	15274530	Sep 23, 2016	Array Camera Configurations Incorporating Constituent Array Cameras and Constituent Cameras	Karik Venkataraman, Jacques Duparre				Pending	
03119 EP	EP	146634835	Nov 26, 2014	Array Camera Configurations Incorporating Multiple Constituent Array Cameras	Karik Venkataraman, Jacques Duparre	3075140			Published	Pelican Array Camera Architecture Cases
03119 PCT	WO	PCT/US2014067746	Nov 26, 2014	Array Camera Configurations Incorporating Multiple Constituent Array Cameras	Karik Venkataraman, Jacques Duparre	WO 2015/081279			Published	Pelican Array Camera Architecture Cases
03208	US	14500979	Sep 29, 2014	Systems and Methods for Depth-Assisted Perspective Distortion Correction	Samuel Yang, Srikanth Manohar, Dan Lelescu, Karik Venkataraman	US-2015-0091900-A1			Published	Pelican Image Processing Pipeline Cases

03208.PCT	WO	PCT/US2014/058142	Sep 29, 2014	Systems and Methods for Depth-Assisted Perspective Distortion Correction	Samuel Yang, Sriharsh Municher, Dan Lelescu, Karik Venkatesan	WO 2015/046694		Pending	Pelican Image Processing Pipeline Cases	
03264	US	14536537	Nov 7, 2014	Methods of Manufacturing Array Camera Modules Incorporating Independently Aligned Lens Stacks	Errol Mark Rodda, Jacques Duparre	US-2015- 0122411-A1	9185276	Nov 10, 2015	Issued	Pelican Array Camera Architecture Cases
03264.CON	US	14536552	Nov 7, 2014	Array Camera Modules Incorporating Independently Aligned Lens Stacks	Errol Mark Rodda, Jacques Duparre	US-2015- 0124151-A1	9264592	Feb 16, 2016	Issued	Pelican Array Camera Architecture Cases
03264.CON2	US	14536594	Nov 7, 2014	Array Cameras Incorporating Independently Aligned Lens Stacks	Errol Mark Rodda, Jacques Duparre	US-2015- 0124113-A1	9426243	Aug 23, 2016	Issued	Pelican Array Camera Architecture Cases
03264.CON3	US	15243405	Aug 19, 2016	Array Cameras Incorporating Independently Aligned Lens Stacks	Errol Mark Rodda, Jacques Duparre			Pending		
03264.EP	EP	148601032	Nov 7, 2014	Methods of Manufacturing Array Camera Modules Incorporating Independently Aligned Lens Stacks	Errol Mark Rodda, Jacques Duparre	3066690		Published	Pelican Array Camera Architecture Cases	

03264.PCT	WO	PCT/US2014/064683	Nov 7, 2014	Methods of Manufacturing Array Camera Modules Incorporating Independently Aligned Lenses Stacks	Errol Mark Rodda, Jacques Duparre	WO 2015/070105			Published	Pelican Array Camera Architecture Cases
03271	US	14347948	Nov 18, 2014	Systems and Methods for Estimating Depth from Projected Texture using Camera Arrays	Kartik Venkateshman, Jacques Duparre	US-2015-0158346-A1			Published	Pelican Array Camera Architecture Cases
03271.PCT	WO	PCT/US2014/066229	Nov 18, 2014	Systems and Methods for Estimating Depth from Projected Texture using Camera Arrays	Kartik Venkateshman, Jacques Duparre	WO 2015/074078			Pending	Pelican Array Camera Architecture Cases
03436	US	14484154	Sep 11, 2014	Systems and Methods for Correcting for Warpage of a Sensor Array in an Array Camera Module by Introducing Warpings into a Focal Plane of a Lens Stack Array	Jacques Duparre	US-2015-0288861-A1	9247117	Jan 26, 2016	Issued	Pelican Optics Cases
03450	US	14642637	Mar 9, 2015	System and Methods for Depth Regularization and Semi-automatic	Manohar Srikant, Ravi Ramamurthi, Kartik Venkateshman, Priyan	US-2015-0254868-A1			Published	Pelican Image Processing Pipeline Cases

				Interactive Mating Using RGB-D Images	Chatterjee					Published	Pelican Image Processing Pipeline Cases
03450.PCT	WO	PCT/US2015/019529	Mar 9, 2015	System and Methods for Depth Regularization and Semantic Interactive Mating Using RGB-D Images	Manohar Srinivas, Ravi Ramamoorthi, Karik Venkatesan, Prayan Chatterjee	WO 2015/134996					
03505	US	14593369	Jan 9, 2015	Array Cameras Including an Array Camera Module Augmented with a Separate Camera	Karik Venkatesan, Paul Gallagher, Ankit K Jain, Semyon Nisenzon, Dan Lelescu, Florin Ciura, Gabriel Molina	US-2015- 0161798-A1			Published	Pelican Array Camera Architecture Cases	
03505.CIP	US	14724417	May 28, 2015	Autofocus System for a Conventional Camera That Uses Depth Information from an Array Camera	Karik Venkatesan, Paul Gallagher, Ankit K Jain, Semyon Nisenzon, Dan Lelescu, Florin Ciura, Gabriel Molina	US-2015- 0264337-A1			Published	Pelican Array Camera Architecture Cases	
03505.PCT	WO	PCT/US2015/032467	May 26, 2015	Autofocus System for a Conventional Camera That Uses Depth Information from an Array Camera	Karik Venkatesan, Dan Lelescu, Florin Ciura, Gabriel Molina, Paul Gallagher, Semyon	WO 2015/133824			Published	Pelican Array Camera Architecture Cases	

					Misenzon, Ankit K. Jain					
03533	US	14561925	Dec 5, 2014	Array Camera and Array Camera Modules Including Spectral Filters Disposed Outside of a Constituent Image Sensor	Errol Mark Rodd, Jacques Dupare	US-2015- 0373201-A1			Allowed	Pelican Optics Cases
03616, PRO2	US	62219528	Sep 16, 2015	Optical Systems for Cameras Incorporating Lens Elements Formed Separately and Subsequently Bonded to Low CTE Substrates	Errol Mark Rodd, Jacques Dupare				Pending	Pelican Optics Cases
03616, PRO3	US	62394644	Sep 14, 2016	Optical Systems for Cameras Incorporating Lens Elements Formed Separately and Subsequently Bonded to Low CTE Substrates	Errol Mark Rodd, Jacques Dupare				Pending	
03636, PCT	WO	PCT/US2015053013	Sep 29, 2015	Systems and Methods for Dynamic Calibration of Array Camera	Florian Curea, Dan Lelescu, Priyam Chatterjee	WO 2016/054089			Published	Pelican Calibration Cases

03663	US	1469346	Apr 17, 2015	Systems and Methods for Performing High Speed Video Capture and Depth Estimation Using Array Cameras	Karik Venkataraman, Yuseong Hwang, Ankit K Jain, Priyam Chatterjee				Pending	Pelican Image Processing Pipeline Cases
03663.PCT	WO	PCTUS2015026545	Apr 17, 2015	Systems and Methods for Performing High Speed Video Capture and Depth Estimation Using Array Cameras	Karik Venkataraman, Yuseong Hwang, Ankit K Jain, Priyam Chatterjee				Pending	Pelican Image Processing Pipeline Cases
03674.PRO	US			Compensation of Temperature-Change-Related Effects in Array Cameras that Employ Lens Stack Arrays, in which Camera Intrinsic Parameters Show Strong Temperature Dependencies	Jacques Dupont, Robert H. Mullis, Karik Venkataraman				Unified	
03782.PRO.01	US			Efficient Methods for Parallax/Depth Estimation for Computation Array Camera's on	Nageswara Rao Chennupati, Larry Bank				Unified	

03911	US	14133186	Apr 19, 2016	Mobile Processors	Kartik Venkatsamam, Dan Lelescu, Jacques Dupare				Pending	Pelican Array Camera Architecture Cases
03911.PCT	WO	PCT/US2016/028317	Apr 19, 2016	Multi-Baseline Camera Array System Architecture for Depth Augmentation in VR/AR Applications	Kartik Venkatsamam, Dan Lelescu, Jacques Dupare				Pending	Pelican Array Camera Architecture Cases

Patents

FILE NUMBER	COUNTRY	SERIAL NUMBER	FILING DATE	TITLE	INVENTORS (FIRST NAME LAST NAME)	PUBLICATION NUMBER	PATENT NUMBER	GRANT DATE	STATUS	CLUSTER NAME
01579.PCT	WO	PCT/US2009/044687	May 20, 2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imagers	Kartik Venkatsamam, Ananddeep S. Jabb, Robert H Mullis, Jr.				Lapsed	Pelican Array Camera Architecture Cases

01579.PHO	US	61054694	May 20, 2008	Monolithic Integrated Array of Heterogeneous Image Sensors	Robert H Mullis, Jr., Karik Venkatesan, Ananddeep S. Jabb, Stephen J. Dhesi					Expired	
01583	US	61261662	Nov 20, 2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imaging	Karik Venkatesan, Ananddeep S. Jabb, Robert H Mullis, Jr., Jacques Duparre, Shane Ching-Feng Hu					Lapsed	
01625	US	61263339	Nov 26, 2009	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imaging	Karik Venkatesan, Ananddeep S. Jabb, Robert H Mullis, Jr., Jacques Duparre, Shane Ching-Feng Hu					Lapsed	
01637	US	61314776	Mar 17, 2010	Fabrication Process for Mastering Image Lens Arrays	Jacques Duparre					Lapsed	
01660.AU	AU	2011343863	Dec 14, 2011	Systems and Methods for Synthesizing High Resolution Images Using Super-Resolution Processes	Dan Lelescu, Gabriel Molins, Karik Venkatesan					Lapsed	Pelican Image Processing Pipeline Cases
01660.PCT	WO	PCT/US1164921	Dec 14, 2011	System and Methods for Synthesizing High Resolution Images Using Super-Resolution Processes	Dan Lelescu, Gabriel Molins, Karik Venkatesan	WO 2012/062904				Lapsed	Pelican Image Processing Pipeline Cases
01661	US	61334011	May 12, 2010	Architectures for System On Chip	Beshrata Pain, Andrew Kenneth					Lapsed	

01883.PCT	WO	PCT/US10057661	Nov 22, 2010	Array Cameras	John McMahon	WO 2011/063347			Lapsed	Pelican Array Camera Architecture Cases
01883.PCT	WO	PCT/US10057661	Nov 22, 2010	Capturing and Processing of Images Using Monolithic Camera Array with Heterogeneous Imaging	Kartik Venkatesan, Arundeep S. Jabb, Robert H Mullis, Jr., Jacques Duparre, Shane Chung-Feng Hu	WO 2011/063347			Lapsed	Pelican Optics Cases
02014.COM	US	1344551	Apr 12, 2012	Fabrication Process for Mastering Imaging Lens Arrays	Jacques Duparre	US-2012-0198677-A1			Abandoned	Pelican Optics Cases
02014.PCT	WO	PCT/US1128835	Mar 17, 2011	Fabrication Process for Mastering Image Lens Arrays	Jacques Duparre	WO 2011/116203			Lapsed	Pelican Optics Cases
02075	US	13106797	May 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	Bedarain Pain, Andrew Kenneth John McMahon	US-2012-0012748-A1			Abandoned	Pelican Sensor Architecture Cases
02075.PCT	WO	PCT/US11036349	May 12, 2011	Architectures for Imager Arrays and Array Cameras	Bedarain Pain, Andrew Kenneth John McMahon	WO 2011/163501			Lapsed	Pelican Sensor Architecture Cases
02075.SG	SG	2012082699	May 12, 2011	Architectures for Imager Arrays and Array Cameras	Bedarain Pain, Andrew Kenneth John McMahon				Abandoned	Pelican Sensor Architecture Cases

02068.PCT	WO	PCT/US2012017670	May 11, 2012	Systems and Methods for Transmitting Array Camera Data	Andrew Kenneth John McMahon	WO 2012/135119			Lapsed	Pelican Sensor Interface/Control Cases
02088.PRO	US	61484920	May 11, 2011	Systems and Methods for Transmitting Array Camera Data	Andrew Kenneth John McMahon				Lapsed	Pelican Sensor Interface/Control Cases
02101.CON	US	14389263	Jan 5, 2015	Imager Array Interfaces	Andrew Kenneth John McMahon	US-2015-0156414-A1			Abandoned	
02115.DIV2	US	14456813	Aug 11, 2014	Optical Arrangements for Use with an Array Camera	Jacques Duparre				Abandoned	Pelican Optics Cases
02115.PCT	WO	PCT/US2012044014	Jun 25, 2012	Optical Arrangements for Use with an Array Camera	Jacques Duparre	WO 2013/003276			Expired	Pelican Optics Cases
02115.PRO	US	61502158	Jun 28, 2011	Optical Arrangements for Use with an Array Camera	Jacques Duparre				Lapsed	Pelican Optics Cases
02115CIP.PCT	WO	PCT/US201428447	Mar 14, 2014	Optical Arrangements for Use with an Array Camera	Jacques Duparre, Dan Lelescu, Karak Verbitzmann	WO 2014/144157			Lapsed	Pelican Optics Cases
02137	US	13650039	Oct 11, 2012	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Duparre	US-2013-008637-A1			Abandoned	Pelican Optics Cases
02137.JP	JP	2014535886	Oct 11, 2012	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Duparre	2014-510581			Abandoned	Pelican Optics Cases
02137.PCT	WO	PCT/US1259813	Oct 11, 2012	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Duparre	WO 2013/055960			Lapsed	Pelican Optics Cases
02137.PRO	US	61545929	Oct 11, 2011	Lens Stack Arrays Including Adaptive Optical Elements	Jacques Duparre				Lapsed	Pelican Optics Cases

02371.PBO	US	61536500	Sep 19, 2011	Aliasing Enhanced Super Resolution Processing Through Use of Pixel Apertures	Karrik Venkataramm, Dan Lelescu, Jacques Dupure, Bedehra Pain, Shree Nayar		Lapsed	
02371A	US	14102493	Dec 10, 2013	Systems and Methods for Controlling Aliasing in Images Captured by an Array Camera for use in Super Resolution Processing Using Pixel Apertures	Shree Nayar, Karrik Venkataramm, Bedehra Pain, Dan Lelescu	US-2014-0098266-A1	Abandoned	Pelican Array Camera Architecture Cases
02371A.PCT	WO	PCT/US1256151	Sep 19, 2012	Systems and Methods for Controlling Aliasing in Images Captured by an Array Camera for use in Super Resolution Processing Using Pixel Apertures	Karrik Venkataramm, Dan Lelescu, Bedehra Pain, Shree Nayar	WO2013/043751	Lapsed	Pelican Array Camera Architecture Cases
02371A.PCT	WO	PCT/US1256151	Sep 19, 2012	Systems and Methods for Controlling Aliasing in Images Captured by an Array Camera for use in Super Resolution Processing Using Pixel Apertures	Karrik Venkataramm, Dan Lelescu, Bedehra Pain, Shree Nayar	WO2013/043751	Lapsed	Pelican Optical Cases
02371B	US	13623091	Sep 19, 2012	Systems and Methods for Determining Depth from Multiple Views of a Scene	Karrik Venkataramm, Dan Lelescu, Shree Nayar	US-2013-0070960-A1	Abandoned	Pelican Image Processing Pipeline Cases

				that include Aliasing Using Hypothesized Fusion						
02371B.CON	US	14933561	Nov 3, 2015	Systems and Methods for Determining Depth From Multiple Views of a Scene that include Aliasing Using Hypothesized Fusion	Priyam Chatterjee, Gabriel Molina, Dan Lelescu			Abandoned	Pelican Array Camera Architecture Cases	
02371B.PCT	WO	PCT/US2012056166	Sep 19, 2012	Systems and Methods for Determining Depth From Multiple Views of a Scene that include Aliasing Using Hypothesized Fusion	Karrik Venkataramm, Dan Lelescu, Jacques Duparre, Beebarta Fain, Shree Nayyar	WO2013/043761		Lapsed	Pelican Image Processing Pipeline Cases	
02376.PRO	US	61340188	Sep 28, 2011	JPEG-DX: A Backwards- compatible, Dynamic Focus Extension to JPEG	Karrik Venkataramm, Semyon Nisenzon			Lapsed	Pelican Light Field Image File Format Cases	
02376AB.PCT	WO	PCT/US1238093	Sep 28, 2012	Systems and Methods for Encoding and Decoding Light Field Image Files	Karrik Venkataramm, Semyon Nisenzon	WO2013/049699		Lapsed	Pelican Light Field Image File Format Cases	
02307.CON2	US	14883131	Oct 14, 2015	Systems and Methods for the Manipulation of Captured Light Field Image Data	Andrew Kenneth John McRobson, Karrik Venkataramm, Robert H Mullis, Jr.			Abandoned	Pelican User Interface Cases	

02407 PCT	WO	PCT/US2013/027146	Feb 21, 2013	Systems and Methods for the Manipulation of Captured Light Field Image Data	Andrew Kenneth John McMahon, Karik Venkataraman, Robert H Mullis, Jr.	WO 2013/126578			Lapsed	Pelican User Interface Cases
02407 PRO	US	61601413	Feb 21, 2012	Method and Apparatus for Manipulation of Light Field Images	Andrew Kenneth John McMahon, Karik Venkataraman				Lapsed	Pelican User Interface Cases
02408	US	14042275	Sep 30, 2013	Generating Images from Light Fields Utilizing Virtual Viewpoints	Semyon Nisenzon, Ankit K Jain	US-2014-0092281-A1			Abandoned	Pelican User Interface Cases
02408 CN	CN	2013806505493	Sep 30, 2013	Generating Images from Light Fields Utilizing Virtual Viewpoints	Ankit K Jain, Semyon Nisenzon	CN104465860A			Lapsed	Pelican User Interface Cases
02408 PCT	WO	PCT/US1361720	Sep 30, 2013	Generating Images from Light Fields Utilizing Virtual Viewpoints	Ankit K Jain, Semyon Nisenzon	WO 2014/022974			Expired	Pelican User Interface Cases
02408 PRO	US	61707691	Sep 28, 2012	Synthesizing Images from Light Fields Utilizing Virtual Viewpoints	Ankit K Jain, Semyon Nisenzon				Lapsed	Pelican User Interface Cases
02409 CON	US	14967742	Dec 14, 2015	Systems and Methods for Correcting User Identified Artifacts in Light Field Images	Karik Venkataraman, Florian Ciurca				Abandoned	Pelican User Interface Cases
02409 PCT	WO	PCT/US2013/059991	Sep 16, 2013	Systems and Methods for Correcting User Identified Artifacts in Light Field Images	Karik Venkataraman, Florian Ciurca	WO 2014/043641			Expired	Pelican User Interface Cases

02469.PRO	US	61701044	Sep 14, 2012	Method and Apparatus for Selection, Detection, and Correction of Depth Related Artifacts in Light Field Images	Karthik Venkateswaran, Florian Clunas				Lapsed	Pelican User Interface Cases
02472	US	13975159	Aug 23, 2013	Feature Based High Resolution Motion Estimation from Low Resolution Images Captured Using an Array Source	Dan Lelescu, Ankit K Jain	US-2014-065632-A1			Abandoned	Pelican Image Processing Pipeline Cases
02472.PCT	WO	PCT/US2013066502	Aug 23, 2013	Feature Based High Resolution Motion Estimation from Low Resolution Images Captured Using an Array Source	Dan Lelescu, Ankit K Jain	WO 2014/032020			Expired	Pelican Image Processing Pipeline Cases
02472.PRO	US	61692547	Aug 23, 2012	Feature Based High Resolution Motion Estimation from Low Resolution Images Captured Using An Array Source	Dan Lelescu, Ankit K Jain				Lapsed	Pelican Image Processing Pipeline Cases
02480	US	13761040	Feb 6, 2013	Systems and Methods for Extending Dynamic Range of Imager Arrays by Controlling Pixel Analog Gain	Andrew Kenneth John Matheson, Paul Gallagher, Karthik Venkateswaran	US-2013-0147979-A1			Abandoned	Pelican Sensor Architecture Cases
02480.COM	US	14962943	Dec 8, 2015	Systems and Methods for Extending Dynamic Range of Imager Arrays by	Andrew Kenneth John Matheson, Paul Gallagher, Karthik Venkateswaran				Abandoned	Pelican Sensor Architecture Cases



02530	US	13782920	Mar 1, 2013	Systems and Methods for Manufacturing Camera Modules Using Active Alignment of Lens Stack Arrays and Sensors	Jacques Duparre, Andrew Kenneth John McMahon, Dan Lelescu	US-2014-0002674-A1			Abandoned	Pelican Array Camera Module Manufacturing Cases
02530.PCT	WO	PCT/US2013046802	Jun 14, 2013	Systems and Methods for Manufacturing Camera Modules Using Active Alignment of Lens Stack Arrays and Sensors	Jacques Duparre, Andrew Kenneth John McMahon, Dan Lelescu	WO2014004134			Expired	Pelican Array Camera Module Manufacturing Cases
02530.PRO	US	61666852	Jun 30, 2012	Systems and Methods for Manufacturing Camera Modules Using Active Alignment of Lens Stack Arrays and Sensors	Jacques Duparre, Andrew Kenneth John McMahon, Dan Lelescu				Lapsed	Pelican Array Camera Module Manufacturing Cases
02531.PRO	US	61772443	Mar 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				Lapsed	

02532.PCT	WO	PCT/US2014/025904	Mar 13, 2014	Systems and Methods for Using Alignment to Increase Sampling Diversity of Cameras in an Array Camera Module	Jacques Duparre, Dan Lelescu	WO 2014/160142			Lapsed	Pelican Array Camera Module Manufacturing Cases
02532.PRO	US	61780436	Mar 13, 2013	Systems and Methods for Using Alignment to Increase Sampling Diversity of Cameras in an Array Camera Module	Jacques Duparre, Dan Lelescu				Lapsed	
02535.PCT	WO	PCT/US2013/069932	Nov 13, 2013	Systems and Methods for Array Camera Focal Plane Control	Andrew Kenneth John McMahon				Expired	Pelican Sensor Interface/Control Cases
02535.PRO	US	61728924	Nov 13, 2012	Systems and Methods for Array Camera Focal Plane Control	Andrew Kenneth John McMahon				Lapsed	Pelican Sensor Interface/Control Cases
02535.PRO.01	US	61772315	Mar 4, 2013	Systems and Methods for Array Camera Focal Plane Control	Andrew Kenneth John McMahon				Lapsed	
02536.PRO	US	61788078	Mar 13, 2013	Systems and Methods for Synthesizing High Resolution Images using Image Deconvolution Based on Motion and Depth Information	Thang Duong, Dan Lelescu				Lapsed	Pelican Image Processing Pipeline Cases
02539.PCT	WO	PCT/US2014/021439	Mar 6, 2014	Systems and Methods for Providing an Array Projector	Jacques Duparre	WO 2014/149902			Lapsed	Pelican Array Projector Cases

02659 PRO	US	61801733	Mar 15, 2013	Systems and Methods for Providing an Array Projector	Jacques Duparre				Lapsed	
02637 PCT	WO	PCT/US2013048772	Jun 28, 2013	Systems and Methods for Detecting Defective Camera Arrays, Optic Arrays and Sensors	Jacques Duparre, Andrew Kenneth John McMahon, Dan Lelescu, Karik Venkatarman, Gabriel Molina	WO 2014/005123			Expired	Pelican Army Camera Module Manufacturing Cases
02637 PRO	US	61665724	Jun 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, Andrew Kenneth John McMahon, Dan Lelescu, Karik Venkatarman, Gabriel Molina				Lapsed	Pelican Army Camera Module Manufacturing Cases
02637 PRO	US	61665724	Jun 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, Andrew Kenneth John McMahon, Dan Lelescu, Karik Venkatarman, Gabriel Molina				Lapsed	Pelican Optics Cases
02663 PCT	WO	PCT/US1356065	Aug 21, 2013	Systems and Methods for Parallel Detection and Correction in Images Captured Using Array Cameras	Karik Venkatarman, Gabriel Molina, Dan Lelescu, Florian Ciurea	WO 2014/031795			Expired	Pelican Image Processing Pipeline Cases

02663.PCTS	WO	PCT/US1356053	Aug 21, 2013	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Karik Verbitarsanu, Gabriel Molina, Dan Lelescu, Florian Ciurca				Abandoned	Pelican Image Processing Pipeline Cases
02663.PRO	US	61691666	Aug 21, 2012	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Karik Verbitarsanu, Gabriel Molina, Dan Lelescu, Florian Ciurca				Lapsed	Pelican Image Processing Pipeline Cases
02663.PRO.01	US	61780906	Mar 13, 2013	Systems and Methods for Parallax Detection and Correction in Images Captured Using Array Cameras	Karik Verbitarsanu, Gabriel Molina, Dan Lelescu, Florian Ciurca				Lapsed	Pelican Image Processing Pipeline Cases
02723.PCT	WO	PCT/US3014017766	Feb 21, 2014	Systems and Methods for Generating Compressed Light Field Representation Data Using Captured Light Fields, Array Geometry, and Parallax	Karik Verbitarsanu, Dan Lelescu, Gabriel Molina	WO 2014/130849			Lapsed	Pelican Light Field Image File Format Cases
02723.PRO	US	61767520	Feb 21, 2013	Systems and Methods for Generating Captured Light Field Image Data Using Captured Light Fields	Karik Verbitarsanu, Dan Lelescu, Gabriel Molina				Lapsed	

02723.PRO.01	US	61786976	Mar 15, 2013	Systems and Methods for Generating Captured Light Field Image Data Using Captured Light Fields	Karrik Venkataraman, Dan Lelescu, Gabriel Molius				Lapsed	
02766.PCT	WO	PCT/US2014018084	Feb 24, 2014	Thin Form Factor Computational Array Cameras and Modular Array Cameras	Karrik Venkataraman, Paul Gallagher, Dan Lelescu, Andrew Kenneth John McMahon, Jacques Duparre	WO 2014/133974			Lapsed	Pelican Array Camera Architecture Cases
02766.PRO	US	61786523	Feb 24, 2013	Thin form factor Computational Array Cameras using Non-monolithic Assemblies	Karrik Venkataraman, Paul Gallagher, Dan Lelescu, Andrew Kenneth John McMahon, Jacques Duparre				Lapsed	Pelican Array Camera Architecture Cases
02814.PCT	WO	PCT/US2014023762	Mar 11, 2014	Array Camera Architecture Implementing Quantum Film Image Sensors	Jacques Duparre	WO 2014/164908			Lapsed	Pelican Array Camera Architecture Cases
02814.PRO	US	61780479	Mar 13, 2013	Array Cameras Architecture Implementing Quantum Film Image Sensors	Jacques Duparre				Lapsed	
02815.PCT	WO	PCT/US2014024407	Mar 13, 2014	Array Camera Architecture Implementing Quantum Dot Color Filters	Karrik Venkataraman, Jacques Duparre, Robert H. Mullis	WO 2014/150856			Lapsed	Pelican Optics Cases
02815.PRO	US	61786533	Mar 15, 2013	Array Camera Architecture Implementing Quantum Dot Color Filters	Karrik Venkataraman, Jacques Duparre, Robert H. Mullis				Lapsed	

02816.PCT	WO	PCT/US2014/025100	Mar 12, 2014	Systems and Methods for Reducing Motion Blur in Images or Video in Ultra Low Light with Array Cameras	Gabriel Molina	WO 2014/139779			Lapsed	Pelican Image Processing Pipeline Cases
02816.PRO	US	61783441	Mar 14, 2013	Systems and Methods for Reducing Motion Blur in Images or Video in Ultra Low Light with Array Cameras	Gabriel Molina				Lapsed	
02817.PCT	WO	PCT/US2014/022118	Mar 7, 2014	Systems and Methods for Measuring Scene Information While Capturing Images Using Array Cameras	Florian Ciurea, Karthik Venkatesan	WO 2014/138693			Lapsed	Pelican Image Processing Pipeline Cases
02817.PRO	US	61775395	Mar 8, 2013	Systems and Methods for Measuring Scene Information While Capturing Images Using Array Cameras	Florian Ciurea, Karthik Venkatesan				Lapsed	
02818.PCT	WO	PCT/US2014/022123	Mar 7, 2014	Systems and Methods for High Dynamic Range Imaging Using Array Cameras	Florian Ciurea, Karthik Venkatesan	WO 2014/138697			Lapsed	Pelican Image Processing Pipeline Cases
02818.PRO	US	61786218	Mar 14, 2013	Systems and Methods for High Dynamic Range Imaging Using Array Cameras	Florian Ciurea, Karthik Venkatesan				Lapsed	
02822.PCT	WO	PCT/US2014/018116	Feb 24, 2014	Extended Color Processing on Pelican Array	Robert H. Mullis, Dan Lelescu, Karthik	WO 2014/149403			Lapsed	Pelican Array Camera Architecture

				Cameras	Venkatraman					Cases
02822.PRO	US	61798602	Mar 15, 2013	Extended Color Processing on Pelican Array Cameras	Robert H. Mullis, Dan Lelescu, Kartik Venkatraman			Lapsed	Pelican Array Camera Architecture Cases	
02824.PCT	WO	PCT/US2014/030692	Mar 17, 2014	Systems and Methods for Stereo Imaging with Camera Arrays	Kartik Venkatraman, Paul Gallagher, Ankit K. Jain, Semyon Nisenzon	WO 2014/165856		Lapsed	Pelican Array Camera Architecture Cases	
02824.PRO	US	61798673	Mar 15, 2013	Systems and Methods for Stereo Imaging with Camera Arrays	Kartik Venkatraman, Paul Gallagher, Ankit K. Jain, Semyon Nisenzon			Lapsed	Pelican Array Camera Architecture Cases	
02835.PCT	WO	PCT/US2014/024947	Mar 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 Venkatraman, Semyon Nisenzon, Priyam Chatterjee, Gabriel Molina	WO 2014/165244		Lapsed	Pelican Image Processing Pipeline Cases	
02835.PRO	US	61786974	Mar 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 Venkatraman, Semyon Nisenzon, Priyam Chatterjee, Gabriel Molina			Lapsed	Pelican Image Processing Pipeline Cases	

02865.PCT	WO	PCT/US2014/023774	Mar 10, 2014	System and Methods for Calibration of an Array Camera	Robert H. Mullis	WO 2014/164530			Lapsed	Pelican Calibration Cases
02865.PRO	US	61780748	Mar 13, 2013	Systems and Methods for Calibration of an Array Camera	Robert H. Mullis				Lapsed	Pelican Calibration Cases
02866.PCT	WO	PCT/US2014/029052	Mar 14, 2014	Systems and Methods for Photometric Normalization in Array Cameras	Andrew Kenneth John McMahon, Dan Lelescu, Florian Ciurea	WO 2014/153098			Lapsed	Pelican Calibration Cases
02866.PRO	US	61785797	Mar 14, 2013	Systems and Methods for Photometric Normalization in Array Cameras	Andrew Kenneth John McMahon, Dan Lelescu, Florian Ciurea				Lapsed	Pelican Calibration Cases
02871.PCT	WO	PCT/US2014/024903	Mar 12, 2014	Systems and Methods for Controlling Aliasing in Images Captured by an Array Camera for use in Super-Resolution Processing	Dan Lelescu, Karthi Venkatesan	WO 2014/159721			Lapsed	Pelican Array Camera Architecture Cases
03119.PRO	US	61909308	Nov 26, 2013	Stereo Array Configuration for a Zoom Camera	Karthi Venkatesan, Jacques Daparte				Expired	Pelican Array Camera Architecture Cases
03208.PRO	US	61883927	Sep 27, 2013	Automatic Depth Assisted Face Perspective Correction for Mobile Device Cameras	Samuel Yang, Srikanth Manohar, Dan Lelescu, Karthi Venkatesan				Expired	Pelican Image Processing Pipeline Cases
03264.PRO	US	61901378	Nov 7, 2013	Non-Monolithic 3 x 3 Array Module with Discrete Sensors and	Errol Mark Rodda, Jacques Daparte				Expired	Pelican Array Camera Architecture Cases

				Discrete Lenses										
03264.PRO.01	US	61904947	Nov 15, 2013	Array Camera Modules and Methods of Manufacturing Array Camera Modules Incorporating Independently Aligned Lens Stacks	Errol Mark Rodda, Jacques Dupont					Expired	Pelican Array Camera Architecture Cases			
03271.PRO	US	61908423	Nov 18, 2013	Structured Lighting System for Depth Acquisition in Texture-less Regions Using Camera Arrays	Kavik Venkatesan, Jacques Dupont					Expired	Pelican Array Camera Architecture Cases			
03436.CON	US	15005729	Jan 25, 2016	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 Dupont					Abandoned	Pelican Optics Cases			
03436.PRO	US	61976335	Apr 7, 2014	Sensor Array Warpage compensation by intentionally introducing Warpage into the Lens Array	Jacques Dupont					Expired	Pelican Optics Cases			

03450 PRO	US	61949399	Mar 7, 2014	Depth Regularization and Semi-automatic Interactive Mapping using RGB-D Images	Manohar Srikanth, Ravi Ramananth, Karik Veeramani					Expired	Pelican Image Processing Pipeline Cases
03505 PRO	US	62003015	May 26, 2014	Array Camera Augmented with External Image Sensor (Cyclops)	Karik Veeramani, Dan Lelescu, Florian Ciurea, Gabriel Molnar					Lapsed	Pelican Array Camera Architecture Cases
03533 PRO	US	62014021	Jun 18, 2014	Channel-Wise Structured (Organic) Color Filter Array Embedded in Image Sensor Cover Glass	Enro Mark Rodda, Jacques Dupurre					Expired	Pelican Optics Cases
03616 PRO	US	62094392	Dec 19, 2014	Optical Systems for Cameras Incorporating Lens Elements Formed Separately and Subsequently Bonded to Low CTE Substrates	Enro Mark Rodda, Jacques Dupurre					Expired	Pelican Optics Cases
03636 PRO	US	62057196	Sep 29, 2014	Adaptive Geometric Calibration for Array Cameras	Florian Ciurea, Dan Lelescu, Priyam Chatterjee					Expired	Pelican Calibration Cases
03664 PRO	US	62067913	Oct 23, 2014	Considerations for Implementation of a Fast Focus Function Using a Camera Array for Depth to Augment Conventional Camera	Karik Veeramani					Expired	Pelican Image Processing Pipeline Cases

03664 PRO 01	US	62072295	Oct 29, 2014	Considerations for Implementation of a Fast Focus Function Using a Camera Array for Depth to Augment Conventional Camera	Karrik Veetharaman				Expired	Pelican Image Processing Pipeline Cases
03781 PRO	US	62106168	Jan 21, 2015	Adaptive Geometric Calibration for Array Cameras	Florian Ciurea, Dan Lelescu, Priyam Chatterjee				Expired	Pelican Calibration Cases
03782 PRO	US	62106161	Jan 21, 2015	Efficient Methods for Parallel/Depth Estimation for Computation Array Camera's on Mobile Processors	Nageswara Rao Gurusudi, Larry Bank				Expired	Pelican Image Processing Pipeline Cases
03811 PRO	US	62148636	Apr 19, 2015	Multi-Issuetime Camera Array System Architecture for Depth Augmentation in VN/AR	Karrik Veetharaman, Dan Lelescu, Jacques Duparre				Expired	Pelican Array Camera Architecture Cases
03822 CON	US	15287626	6-OCT-16	Applications Extended Color Processing on Pelican Array Camera	Robert H. Mullis, Dan Lelescu, Karrik Veetharaman				Pending	Pelican Array Camera Architecture Cases

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)

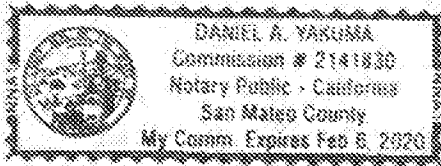
County of San Mateo)

On _____ before me, Daniel A. Yakuma, Notary Public
 Date Here Insert Name and Title of the Officer
 personally appeared Christopher Michael Pickett
 Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature [Signature]
 Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: Patent Assignment Agt. P.I. Document Date: 2/25/16
 Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: Christopher Pickett
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other: _____
 Signer Is Representing: Assignor: KIP PILL LLP

Signer's Name: _____
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other: _____
 Signer Is Representing: _____

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)

County of San Mateo)

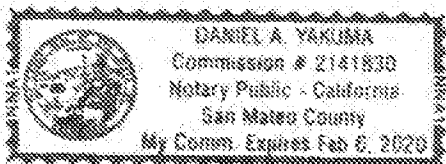
On _____ before me, Daniel A. Yakuma, Notary Public,
Date Here Insert Name and Title of the Officer

personally appeared Christopher Michael Pelt
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature [Signature]
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: Patent Assignment Agt P. 2 Document Date: 11/3/14

Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: Christopher Pelt

- ☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing: Assignee: Pelicon Imaging Corporation

Signer's Name: _____

- ☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing: _____