United States Patent and Trademark Office

| APPLICATION NO. | ISSUE DATE | PATENT NO. | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| :---: | :---: | :---: | :---: | :---: |
| $12 / 815930$ |  |  |  |  |
| 48789 | $09 / 06 / 2011$ | RE42678 |  |  |

## ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

## Determination of Patent Term Extension or Adjustment under 35 U.S.C. 154 (b)

A reissue patent is for "the unexpired part of the term of the original patent." See 35 U.S.C. 251. Accordingly, the above-identified reissue application is not eligible for Patent Term Extension or Adjustment under 35 U.S.C. 154(b).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):
Jeffrey P. Wilde, Morgan Hill, CA;
Joseph E. Davis, Morgan Hill, CA;

## PART B - FEE(S) TRANSMITTAL

## Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE <br> Commissioner for Patents <br> P.O. Box 1450 <br> Alexandria, Virginia 22313-1450 <br> or Fax (571)-273-2885

NGSRUCTIONS Bhis form should be used for (ransmithing the ISSUE FEE and PUBIICATION FEE (if required) Blocks I through S should be compzeied where spmprate: All further cortespondence including the Patent, advance orders and notification of maintenance fees wilt be mailed to the current cerrespencence address indieated unless correcsed below or directed otherwise in Block 1, by (s) specifying a new eorrespondence address; andVer (b) indicsling a separaie "fEE ADDKESS" for ma:menance ice notifications
CURRENT CORRESRONDENCE ADDRESS [Nove: Use Bliock I for sey change of addrest)
Note: A certificate of maitine can onfy be used for domestic matings of the Fee(s) Transmitta. This cerrificalc cannot be used for any oches accompanying papers. Each additional paper, such as an assignment or formal drawing. must have it own certificase of mailing or ransmission.

## Certificate of Mailing or Transmission

Ihereby certify that this Feeis) Transmital is being depasited with the Inated Shates Postal Service with syfficient postoge for first class mat? in an enveliop addressed to the Mail Stop ISSUE FEE address above, or being facsimt transmitted to the USPTO (571) 273-2885, on the dare indicated beiow.



TITLE OF INVENTION: RECONFIGURABIE OPTICAL ADD-DROP MULTIPLEXERS WITH SERVO CONTROL AND DYNAMMC SPECTRAS. POWEK MANAGEMENT CAPABLLIYIES

3. ASSIGNEE NGME AND RESIDENCE DATA TO BE PRINTED ON TME PATENT (prim or type)

HLEASE NOTE: Unicss an assignee is idensified bclow, no assignee data will appear on the patent. If an assignce is idsatificd below, the document has been lited for recordsison as set forth in 37 CFR 3.11 . Completion of this formi is NOT 3 substitute for filing an assignmem
(A) NAME OF ASSIGNEE
(B) RESIDENCE: (CITY and STATE OR COUNTRY)
Capella Photonics, Inc. San Jose, California


4a. The following feef(s) are submitted:
AXissue Fes

- Publication fee (No small entity discount permined)
$\square$ Advante Order - 4 of Copies $\qquad$ 4b. Payment of Fee(s): (Please Rirst reapply any previously pisid issue fee shown ahove) $\square$ A check is enclosed.
WX paymen by credit cand Form PYO -2038 is attached. (EFSmeb)
$\square$ The Director is heseby authorized to charge the sequired feets), any deficiency, or credit any


5. Change in Entity Status (from statas indicated above)
6. Applicant claims SMALL ENTITY stasus. See 37 CFR 1.27. $\square$ b. Applicant is no longer claimang SMALL ENTITY siatus. Sec 37 CFR 1.27(g)(2).
NOTE: The lssuc Fee and Peblication Fee (if required) will not be accepted from anyonc other then the applicank; a tegistered attomey or agent; or the assignee of otber party in imerest as shown by the records of the jepticed States fatent and Trademark Olfice.


Date May 19, 2011
Regituraion No. 27.744
This collection of informstion is required by 37 CFR 1.31 . The infonation is reguired on obtain or retain a benefor by the publie which is to file (and by the USPTO to process an application. Considentiality is govamed by 35 US.C.C. 122 and 37 CFR 1.14 . This colicetion is cstimased 16 take 12 minutes to complete, including gathering, preparing, and surmitting the compieted application form to the USPIO. Time witl vary dependisy upon the indsvidual case. Any comments on the amount of time you require to complete his form andior suggestions for reducing this burden should be sent to the Chicf Information Officer, B.S. Patent and Trademish Onfice. U.S. Departarth of Cunmerce. PO
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| Description | Fee Code | Quantity | Amount | Sub-Total in <br> USD(\$) |
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| Electronic Acknowledgement Receipt |  |
| :---: | :---: |
| EFS ID: | 10132129 |
| Application Number: | 12815930 |
| International Application Number: |  |
| Confirmation Number: | 2344 |
| Title of Invention: | RECONFIGURABLE OPTICAL ADD-DROP MULTIPLEXERS WITH SERVO CONTROL AND DYNAMIC SPECTRAL POWER MANAGEMENT CAPABILITIES |
| First Named Inventor/Applicant Name: | Jeffrey P. Wilde |
| Customer Number: | 48789 |
| Filer: | Barry N. Young |
| Filer Authorized By: |  |
| Attorney Docket Number: | C2393-1101RE2 |
| Receipt Date: | 19-MAY-2011 |
| Filing Date: | 15-JUN-2010 |
| Time Stamp: | 20:57:30 |
| Application Type: | Utility under 35 USC 111(a) |

## Payment information:

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| 1 | Issue Fee Payment (PTO-85B) | PTOL-85.pdf | 296160 | no | 1 |
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| New Applications Under 35 U.S.C. 111 |  |  |  |  |  |
| If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. |  |  |  |  |  |
| National Stage of an International Application under 35 U.S.C. 371 |  |  |  |  |  |
| If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. |  |  |  |  |  |
| New International Application Filed with the USPTO as a Receiving Office |  |  |  |  |  |
| If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application. |  |  |  |  |  |

## NOTICE OF ALLOWANCE AND FEE(S) DUE

${ }^{48789} \quad{ }^{7590}$
LAW OFFICES OF BARRY N. YOUNG
200 PAGE MILL ROAD
SUITE 102
PALO ALTO, CA 94306

| EXAMINER |  |
| :---: | :---: |
| HEALY, BRIAN |  |
| ART UNIT PAPER NUMBER <br> 2883  <br> DATE MAILED: 04/11/2011  |  |$.$|  |
| :--- |


| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| :---: | :---: | :---: | :---: | :---: |
| $12 / 815,930$ | $06 / 15 / 2010$ | Jeffrey P. Wilde | C2393-1101RE2 |  |

TITLE OF INVENTION: RECONFIGURABLE OPTICAL ADD-DROP MULTIPLEXERS WITH SERVO CONTROL AND DYNAMIC SPECTRAL POWLER MANAGEMENT CAPABILITIES

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL. FEE(S) DUE | DATE DUE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| nonprovisional | NO | $\$ 1510$ | $\$ 0$ | $\$ 0$ | $\$ 1510$ | $07 / 11 / 2011$ |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

## HOW TO REPLY TO THIS NOTICE:

1. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:
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If the SMALL ENTITY is shown as NO:
A. Pay TOTAL FEE(S) DUE shown above, or
B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5 a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and $1 / 2$ the ISSUE FEE shown above.
II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section " $4 b^{\prime \prime}$ of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.
III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12 , 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

Page 1 of 3
PTOL-85 (Rev. 02/11)

## PART B - FEE(S) TRANSMITTAL

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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks I through 5 should be completed where
appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as
indicated unless corrected below or directed otherwise in Block I, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for
maintenance fee notifications.

TITLE OF INVENTION: RECONFIGURABLE OPTICAL ADD-DROP MULTIPLEXERS WITH SERVO CONTROL AND DYNAMIC SPECTRAL POWER MANAGEMENT CAPABILITIES

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| nonprovisional | NO | \$1510 | \$0 | \$0 | \$1510 | 07/11/2011 |
| EXAMINER |  | ART UNIT | CLASS-SUBCLASS |  |  |  |
| HEALY, BRIAN |  | 2883 | 385-024000 | - |  |  |
| 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.$\square$ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. |  |  | 2. For printing on the patent front page, list <br> (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, |  | ys |  |

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment
(A) NAME OF ASSIGNEE
(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): $\square$ Individual $\square$ Corporation or other private group entity $\square$ Government


| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| :---: | :---: | :---: | :---: | :---: |
| 12/815,930 | 06/15/2010 | Jeffrey P. Wilde | C2393-1101RE2 | 2344 |
| LAW ${ }^{48789}{ }^{7590}$ OFFICES OF BARRY ${ }^{04 / 11 / 20}$ |  |  | EXAMINER |  |
|  |  | . | HEALY, BRIAN |  |
| LAW OFFICES OF BARRY N. YOUNG 200 PAGE MILL ROAD |  |  | ART UNIT | PAPER NUMBER |
| SUITE 102 |  |  |  |  |
| PALO ALTO, CA 94306 |  |  | 2883 |  |
|  |  |  | DATE MAILED: 04/11/2011 |  |

## Determination of Patent Term Extension or Adjustment under 35 U.S.C. 154 (b)

A reissue patent is for "the unexpired part of the term of the original patent." See 35 U.S.C. 251. Accordingly, the above-identified reissue application is not eligible for Patent Term Extension or Adjustment under 35 U.S.C. 154(b).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

## Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. $552 \mathrm{a}(\mathrm{m})$.
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

| Notice of Allowability | Application No. |  | Applicant(s) |
| :--- | :--- | :--- | :--- |
|  | $12 / 815,930$ | WILDE ET AL. |  |
|  | Examiner | Art Unit |  |
|  | BRIAN M. HEALY | 2883 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. $\triangle$ This communication is responsive to the response filed $1 / 31 / 2011$.
2. $\triangle$ The allowed claim(s) is/are 1-67.
3.Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)

b) $\square$ Some*
c) $\square$None of the:Certified copies of the priority documents have been received.Certified copies of the priority documents have been received in Application No. $\qquad$ _.Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: $\qquad$ _-

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.
4.A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.
$\square$ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
(a) $\square$ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

1) $\square$ hereto or 2) $\square$ to Paper No./Mail Date $\qquad$ _.
(b) $\square$ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date $\qquad$ -.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. $\boxtimes$ Notice of References Cited (PTO-892)
2.Notice of Draftperson's Patent Drawing Review (PTO-948)Information Disclosure Statements (PTO/SB/08),Notice of Informal Patent Application
6.Interview Summary (PTO-413),
Paper No./Mail Date $\qquad$ .
Paper No./Mail DateExaminer's Comment Regarding Requirement for Deposit of Biological Material
4.Examiner's Amendment/Comment
2. $\boxtimes$ Examiner's Statement of Reasons for Allowance
3. $\square$ Other $\qquad$ _.
/BRIAN M. HEALY/
PRIMARY EXAMINER
ART UNIT: 2883

## DETAILED ACTION

## Allowable Subject Matter

1. The following is an examiner's statement of reasons for allowance: The closet references of record are (Note these references were made of record on PTOL-1449) Bouevitch et. al., U.S.P. No. 6,498,872 which teaches (Figs.1-12) an optical device which is used in conjunction with configurable optical add/drop multiplexers (COADM) which includes optical fiber input/output ports $80 a, 80 b, 99 a, 99 b$ which sends wavelength of light which are collimated through lens 90 to spherical reflector 10 which is incident of diffraction grating 20 to MEMS reflector(s) 51,52. which are movable in either the horizontal or vertical directions to return specific wavelengths lambda 1, lambda2 to the output ports 3. Bouevitch et. al., U.S.P. No. 6,498,872 does not teach or suggest using channel micromirrors which are both individually and continuously controllable to reflect received spectral channels to any one of the output ports and to control the power of the received spectral channels coupled to the output ports.
2. Additional secondary references Wagener et. al., U.S.P. No. 6,631,222 (Figs.14), Jin et. al., U.S.P. No. 6,256,430 (Figs.1-7) and Ma et. al., U.S.P. No. 6,567,574 (Figs.1-12) all teach that at the time the invention was made it was know that pivotable micromirrors or MEMS can be used with wavelength multiplexers to switch or select wavelengths between input and output ports.
3. None of the aforementioned references, either taken alone or in combination with each other, teach or suggest the claimed wavelength separating routing device which includes multiple fiber collimators, a wavelength separator, a beam-focuser and a
spatial array of channel micro mirrors which are pivotable about two axes and are both individually and continuously controllable to reflect received spectral channels to any one of the output ports and to control the power of the received spectral channels coupled to the output ports. These limitations are recited in amended claim 1.

## Therefore the patentability of amended claim 1 is confirmed.

4. Dependent claims 2-20 are inclusive of the limitations of amended claim 1, as well as other additionally recited limitations. Please see the dependent claims for the specifics of these additionally recited limitations. The patentability of dependent

## claims 2-20 is confirmed.

5. In addition, none of the aforementioned references, either taken alone or in combination with each other, teach or suggest the claimed servo-based optical apparatus comprising multiple fiber collimators providing multi-wavelength optical signal and a plurality of output ports, a wavelength separator, a beam focuser, a spatial array of individually controllable channel micromirrors and a servo-control assembly in communication with the channel micromirrors and the output ports for maintaining a predetermined coupling of each reflected spectral channels into one of the output ports. 6. These limitations are recited in original claim 21. Therefore the patentability of original claim 21 is confirmed.
6. Dependent claims 22-30 are inclusive of the limitations of original claim 21, as well as other additionally recited limitations. Please see the dependent claims for the specifics of these additionally recited limitations. The patentability of dependent claims 22-30 is confirmed.
7. In addition, none of the aforementioned references, either taken alone or in combination with each other, teach or suggest the claimed optical appatatus comprising: an array of fiber collimators providing multi-wavelength optical signal and a plurality of output ports, a wavelength separator, a beam focuser, a spatial array of individually controllable channel micromirrors being individually and continuously controllable to reflect spectral channels into selected ones of output ports and a onedimensional (or two dimensional) array of collimator-alignment mirrors for adjusting an alignment of multi-wavelength optical signal from the input port and directing spectral channels into the output ports. These limitations are recited in original claim 31 (and original claim 37 is the same as that of claim 31 except has a two-dimensional array of collimator-alignment mirrors). Therefore the patentability of original claims 31 and

## 37 is confirmed.

9. Dependent claims 32-36 and 38-43 are inclusive of the limitations of original claim 31 and 37, as well as other additionally recited limitations. Please see the dependent claims for the specifics of these additionally recited limitations. The patentability of dependent claims 32-36 and 38-43 is confirmed.
10. The limitation of independent amended claim 44 is similar to that of claim 1 with the addition of a plurality of output ports including a pass-through port and one or more drop points. Therefore the patentability of amended claim 44 is confirmed.
11. Dependent claims 45-60 are inclusive of the limitations of amended claim 44, as well as other additionally recited limitations. Please see the dependent claims for the
specifics of these additionally recited limitations. The patentability of dependent

## claims $45-60$ is confirmed.

12. In addition, none of the aforementioned references, either taken alone or in combination with each other, teach or suggest the claimed method of performing dynamic wavelength separating and routing comprising: receiving a mult-wavelength optical signal from an input port, separating the multi-wavelength optical signal into multiple spectral channels, focusing the spectral channels onto a spatial array of corresponding beam-deflecting elements whereby each beam deflecting element receives one of the spectral channels, dynamically and continuously controlling the beam-deflecting elements in two dimensions to direct the spectral channels into any selected ones of the output ports and to control the power of the spectral channels coupled into the selected output ports. These limitations are recited in amended claim

## 61. Therefore the patentability of amended claim 61 is confirmed.

13. Dependent claims 62-67 are inclusive of the limitations of amended claim 61, as well as other additionally recited limitations. Please see the dependent claims for the specifics of these additionally recited limitations. The patentability of dependent

## claims 62-67 is confirmed.

14. Please note that Applicant has cancelled or omitted newly submitted claim 68 in response to the previous office action. See the remarks of 1.31/2010.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

Application/Control Number: 12/815,930
accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

The oath or declaration, filed $01 / 31 / 2010$ is sufficient to overcome the rejection of claims based on 35 U.S.C. 251. See previous office action.

This reissue application is a reissue of U.S. Patent Application 11/027,586, filed 12/31/2004, now RE39,397, which is a Reissue of U.S. Patent Application, filed 08/23/2001, now U.S.P. No. 6,625,346 which claims the benefit of $60 / 277,217$.

The references which were made of record in RE39,397, will also be made of record in the present Application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN M. HEALY whose telephone number is (571)272-2347. The examiner can normally be reached on M-F 6AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Robinson can be reached on (571)272-2319. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.
/BRIAN M. HEALYI Primary Examiner Art Unit 2883

| Notice of References Cited | Application/Control No. 12/815,930 | Applicant(s)/Patent Under Reexamination WILDE ET AL. |  |
| :---: | :---: | :---: | :---: |
|  | Examiner BRIAN M. HEALY | Art Unit $2883$ | Page 1 of 1 |

U.S. PATENT DOCUMENTS

| * | Document Number <br> Country Code-Number-Kind Code | Date <br> MM-YYYY | Name | Classification |  |
| :---: | :---: | :--- | :--- | :--- | :---: |
| * | A | US-6,625,346 | $09-2003$ | Wilde, Jeffrey P. | $385 / 24$ |
| * | B | US-5,629,790 | $05-1997$ | Neukermans et al. | $359 / 198.1$ |
| * | C | US-5,835,458 | $11-1998$ | Bischel et al. | $369 / 44.12$ |
| * | D | US-5,960,133 | $09-1999$ | Tomlinson, W. John | $385 / 18$ |
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| * | G | US-6,205,269 | $03-2001$ | Morton, Paul A. | $385 / 24$ |
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| * |  | US-6,263,135 | $07-2001$ | Wade, Robert Kent | $385 / 37$ |
| * | J | US-6,289,155 | $09-2001$ | Wade, Robert Kent | $385 / 37$ |
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| * | M | US-2003/0043471 A1 | $03-2003$ | Belser et al. | $359 / 634$ |

FOREIGN PATENT DOCUMENTS

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Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

| Application Number \|||||||||||||||||||"|||||||||| | Application No. $12 / 815,930$ | Applicant(s) Wilde et al. |
| :---: | :---: | :---: |
|  | Notice of Reissue Published in OG on $08 / 03 / 10$ |  |
| Original Patent Number of Paten | Be Reissued is RE39397 | The Maintenance fee status is: up to date. not required. |
| This reissue patent is subject to $\mathbf{A}$ Terminal Disclaimer that:was filed during the prosecution of the reissue application.was of record prior to the filing of the reissue application. |  |  |
| Physical surrender of the letters patentwas made.was not made, but a statement of loss/inaccessibility was provided.is not required |  |  |
| . | Final SPRE Review $\frac{3 / 24111}{\text { (DATE) }}$ |  |

U.S. Patent and Trademark Office



| 区 | Claims renumbered in the same order as presented by applicant |  |  |  |  |  |  |  | CPA |  | T.D. | R.1.47 |  |  |  |
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| 4 | 4 | 20 | 20 | 36 | 36 | 52 | 52 |  | 68 |  |  |  |  |  |  |
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| 8 | 8 | 24 | 24 | 40 | 40 | 56 | 56 |  |  | . |  |  |  |  |  |
| 9 | 9 | 25 | 25 | 41 | 41 | 57 | 57 |  |  |  |  |  |  |  |  |
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| 14 | 14 | 30 | 30 | 46 | 46 | 62 | 62 |  |  |  |  |  |  |  |  |
| 15 | - 15 | 31 | 31 | 47 | 47 | 63 | 63 |  |  |  |  |  |  |  |  |
| 16 | 16 | 32 | 32 | 48 | 48 | 64 | 64 |  |  |  |  |  |  |  |  |


| NONE |  | Total Claims Allowed: <br> (Assistant Examiner) |  | (Date) |
| :--- | :---: | :---: | :---: | :---: |


| - Index of Claims | Application/Control No. $12815930$ | Applicant(s)/Patent Under Reexamination <br> WILDE ET AL. |
| :---: | :---: | :---: |
|  | Examiner BRIAN M HEALY | Art Unit $2883$ |



| A | Appeal |
| :---: | :---: |
| O | Objected |


| Claims renumbered in the same order as presented by applicant |  |  |  |  |  |  | $\square$ CPA | $\square$ T.D. |  | R.1.47 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | DATE |  |  |  |  |
| Final | Original | 10/22/2010 | 12/29/2010 | 02/15/2011 |  |  |  |  |  |  |
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| 36 | 36 | $\checkmark$ | $\checkmark$ | $=$ |  |  |  |  |  |  |


| Index of Claims | Application/Control No. $12815930$ | Applicant(s)/Patent Under Reexamination <br> WILDE ET AL. |
| :---: | :---: | :---: |
|  | Examiner BRIAN M HEALY | Art Unit <br> 2883 |


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| $\mathbf{I}$ | Interference |


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| O | Objected |



| Search Notes | $\begin{aligned} & \text { Application/Control No. } \\ & 12815930 \end{aligned}$ | Applicant(s)/Patent Under Reexamination <br> WILDE ET AL. |
| :---: | :---: | :---: |
|  | Examiner <br> BRIAN M HEALY | Art Unit $2883$ |


| SEARCHED |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: |
| Class | Subclass | Date | Examiner |  |
| 385 | $24,11,37,34$ |  | $10 / 22 / 2010$ | /BH/ |
|  | UPDATE:(SAME AS ABOVE) | $2 / 15 / 2011$ | $/ \mathrm{BH} /$ |  |


| SEARCH NOTES <br> Search Notes <br>  <br> SEARCHED"EAST"(prior art)(SEARCH TERMS, CLASSISUBCLASSES <br> AND DATABASES USED ARE LISTED ON printout) <br> UPDATE"EAST" (prior art and interference)(SAME AS ABOVE) <br> PALM INVENTOR'S SEARCH <br> STIC LITIGATION SEARCH <br> Consulted USP RE39,397 and USP No.6,625,346. <br> STIC LITIGATION SEARCH (NO LITIGATION FOUND) |  |  |
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| INTERFERENCE SEARCH |  |  |  |  |  |
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| 385 | $24,11,37,34$ |  | $2 / 15 / 2011$ | $/ \mathrm{BH} /$ |  |


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## BIB DATA SHEET



STIC Database Tracking Number: 356224

To: BRIAN HEALY
Location: JEF-4D05
Art Unit: 2883
Wednesday, February 16, 2011
Case Serial Number: 11/027586

From: DIANE JACKSON
Location: EIC2800
JEF-4B68
Phone: (571)272-3260
diane.jackson@uspto.gov

Search Notes

Hi ,
Attached are litigation search results in Lexis Nexis, and CourtLink and Q-Pat/Orbit.

No Litigation was found for Serial Number 11/027586 Patents RE39397 and 6625346.

If you have any questions, please feel free to contact me.

Thanks,
Diane

Page 1 of 1
Jackson, Diane
From: Mealy, Brian
FEB 162011
Sent: Tuesday, February 15, 2011 10:28 AM
To: STIC-EIC2800
Subject: Need litigation search for reissue 11/027,586 corresponding to PAT Re 39,397 which is a reissue of 09/938,426, now USP 6,625,346
Dear Sir or Madam, My name is Brian Mealy (employee No 62975) and I am a Primary Examiner working on a reissue. I Need a litigation search for reissue 11/027,586 corresponding to PAT Re39,397 which is a reissue of 09/938,426, now USP 6,625,346. Thanks, Brian Mealy, Primary Examiner, Art Unit: 2883 (571) 272-2347


Healy, Brian

From: $\quad$\begin{tabular}{l}
Jackson, Diane <br>
Sent:

$\quad$

Wednesday, February 16, $20119: 34$ AM <br>
To:

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Healy, Brian
\end{tabular}

Subject: $\quad$| Litigation Search Results for 11/027586 - Patents RE39397 and 6625346 - Nothing |
| :--- |
| found ...Please see attached pdf - Thank you for using your EIC2800! |

Attachments: Litigation11027586.pdf..pdf

Application Number Information

| Application Number: 11/027586 Assignments | Examiner Number: 62975 / H |  |
| :---: | :---: | :---: |
| Filing or 371(c) Date: 12/31/2004 cDan | Group Art Unit: $\mathbf{2 8 8 3}$ | 1FW Madras |
| Effective Date: 12/31/2004 | Class/Subclass: 385/024.000 |  |
| Application Received: 01/03/2005 | Lost Case: NO |  |
| Patent Number: RE39397 | Interference Number: |  |
| Issue Date: 11/14/2006 | Unmatched Petition: NO |  |
| Date of Abandonment: 00/00/0000 | L\&R Code: Secrecy Code:1 |  |
| Attorney Docket Number: C2393-1101 | Third Level Review: NO | Secrecy Order: NO |
| Status: 150 /PATENTED CASE |  | Status Date: 10/25/2006 |
| Confirmation Number: 5930 | Oral Hearing: NO |  |
| Title of Invention: RECONFIGURABLE OPT | EERS WITH SERVO CONTT | ECTRAL POWER MA |


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## Continuity/Reexam Information for 11/027586

## Parent Data <br> 11027586, filed 12/31/2004 is a relssue of 09938426, filed 08/23/2001, now U.S. Patent \#6625346 and having 1 RCE-type filing therein 09938426 Claims Priority from Provisional Application 60277217, filed 03/19/2001

Child Data
12815930, filed on 06/15/2010 is a reissue of 11027586 , filed on $12 / 31 / 2004$



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Application Number Information

| Application Number: $09 / 938426$ Order This File Assignmenis | Examiner Number: 62975 /HEAl,Y, BRIAN |  |
| :---: | :---: | :---: |
| Filing or 371(c) Date: 08/23/2001 eDan | Group Art Unit: 2874 |  |
| Effective Date: 08/23/2001 | Class/Subclass: 385/024.000 |  |
| Application Received: 08/27/2001 | Lost Case: NO |  |
| Pat. Num./Pub. Num: $6 \mathbf{6 2 5 3 4 6 / 2 0 0 2 0 1 3 1 6 8 7}$ | Interference Number: |  |
| Issue Date: 09/23/2003 | Unmatched Pelition: NO |  |
| Date of Abandonment: 00/00/0000 | L\&R Code: Secrecy Code:1 |  |
| Attorney Docket Number: 210393-991101 | Third Level Review: NO | Secrecy Order: NO |
| Status: 150 /PATENTED CASE |  | Status Date: 09/04/2003 |
| Confirmation Number: 2587 | Oral Hearing: NO |  |

## Conmation Number. 2587 Oral hearing. no <br> Title of Invention: RECONFIGURABLE OPTICAL ADD-DROP MULTIPLEXERS WITH SERVO CONTROL AND DYNAMIC SPECTRAL POWER MANAGEMENT CAPABILITIES

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027586 (11) RE 39397 November 14, 2006
UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT
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November 14, 2006
Reconfigurable optical add-drop multiplexers with servo control and dynamic spectral power management capabilities

INVENTOR: Wilde, Jeffrey P. - Morgan Hill, California, United States (US)Davis, Joseph E. - Morgan Hill, California, United States (US)

APPL-NO: 027586 (11)
FILED-DATE: December 31, 2004
GRANTED-DATE: November 14, 2006
ASSIGNEE-AT-ISSUE: Capella Photonics, Inc., San Jose, California, United States (US), United States company or corporation (02)

ASSIGNEE-AFTER-ISSUE: May 5, 2009 - SECURITY AGREEMENT, SILICON VALLEY BANK 3003 TASMAN DRIVE SANTA CLARA CALIFORNIA 95054, Reel and Frame Number: 022641/0593
July 9, 2009 - SECURITY AGREEMENT, TEATON CAPITAL COMPANY 3000 SAND HILL ROAD, SUITE 3-210
MENLO PARK CALIFORNIA 94025, Reel and Frame Number: 022932/0669
LEGAL-REP: Young, Barry N. -
PUB-TYPE: November 14, 2006 - Reissue Patent (E1)
PUB-COUNTRY: United States (US)
REL-DATA:
Reissue of: 09938426, August 23, 2001, GRANTED PATENT 06625346, September 23, 2003
Provisional Application Ser. No. 60277217, March 19, 2001, PENDING
US-MAIN-CL: 385\#24
http://www.lexis.com/research/retrieve? $\mathrm{cc}=$ \& pushme $=1 \&$ tmpFBSel=all\&totaldocs=\&taggedDocs=\&toggleValue=\&numDocsCh... $2 / 16 / 2011$

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September 23, 2003
Reconfigurable optical add-drop multiplexers with servo control and dynamic spectral power management capabilities

REISSUE:
December 31, 2004 - Reissue Application filed Ex. Gp.: 2874; Re. S.N. 11/027,586, (O.G. March 15, 2005) November 14, 2006 - This patent was reissued as Reissue Patent RE 39,397 (O.G. November 14, 2006),

INVENTOR: Wilde, Jeffrey P. - Los Gatos, CALIFORNIA
APPL-NO: 938426 (09)
FILED-DATE: August 23, 2001
GRANTED-DATE: September 23, 2003
PRIORITY: August 23, 2001-10938426, United States of America (US)
ASSIGNEE-PRE-ISSUE:
August 23, 2001 - ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS)., CAPELLA PHOTONICS, INC. 19 GREAT OAKS BLVD., SUITE 20SAN JOSE, CALIFORNIA, 95119, Reel and Frame Number: 012118/0994

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CLARA, CALIFORNIA, UNITED STATES OF AMERICA (US), 95054, Reel and Frame Number: 022641/0593
July 9, 2009 - SECURITY AGREEMENT, TEATON CAPITAL COMPANY, 3000 SAND HILL ROAD, SUITE 3-210, MENLO PARK, CALIFORNIA, UNITED STATES OF AMERICA (US), 94025, Reel and Frame Number: 022932/0669

LEGAL-REP: Gray Cary Ware \& Freidenrich LLP
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Reconfigurable optical add-drop multiplexers with servo control and dynamic spectral power management capabilities A IN WILDE JEFFREY P
PA BINGHAM RAYMOND H
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| 20020508 US/API [EXM;PO | OS] FILING DETAILS |
| 20020919US/A1 [EXM;PO | First published patent application US2002131698 A1 20020919 [US20020131698] |
| 20031209US/B2 [PIF;POS | Granted patent as second publication US6661948 B2 20031209 [US6661948] |
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US2002131688 A1 20020919 [US20020131688]
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| 20020129 US/AS-A [NMC | ASSIGNMENT <br> OWNER: CAPELLA PHOTONICS, INC. 19 GREAT OAKS BLVD., SUITE; EFFECTIVE DATE: 20020122 ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:BELSER, KARL <br> ARNOLD /AR;REEUFRAME:012553/0119 |
| 20020129US/AS-A [NMC | ASSIGNMENT <br> OWNER: CAPELLA PHOTONICS, INC., CALIFORNIA; EFFECTIVE DATE: 20020122 <br> ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:BELSER, KARL ARNOLD;WILDE, JEFFREY <br> P.;REEL/FRAME:012553/0119 |
| 20020129 US/API [EXM; | OS] FILING DETAILS 2040 [2002US-0060493] |
| 20020919 US/A1 [EXM; | First published patent application US2002131690 A1 20020919 [US20020131680] |
| 20030415 US/B2 [PIF;PO | Granted patent as second publication <br> US6549699 B2 20030415 [US6549699] |
| 20050308 US/RF-A [OPP | REISSUE APPLICATION FILED EFFECTIVE DATE: 20041231 |
| 20090505 USIAS-A [NMC | ASSIGNMENT <br> JOWNER: SILICON VALLEY BANK, CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| 20090505 US/AS-A [NMC | ASSIGNMENT <br> JOWNER: BINGHAM, RAYMOND H., CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| 20090505US/AS-A [NM | ASSIGNMENT <br> JOWNER: BLACK DIAMOND VENTURES XIV, LLC., CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 |
| 20090505 US/AS-A [NMC | ASSIGNMENT <br> JOWNER: DONALD L. LUCAS, SUCC TTEE DONALD L. LUCAS PROFIT; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| 20090505 US/AS-A [NMC | ASSIGNMENT <br> OWNER: DONALD L. LUCAS, TTEE DONALD L. AND LYGIA LUCAS TR; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| 20090505US/AS-A [NMC | ASSIGNMENT <br> JOWNER: LUCAS VENTURE GROUP I, LLC, CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEUFRAME:022641/0593 |
| $20090505 \mathrm{US} / \mathrm{AS}-\mathrm{A}$ [NMC | ASSIGNMENT <br> JOWNER: THE LUCAS BROTHERS FOUNDATION, CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| 20090505 US/AS-A [NM | ASSIGNMENT <br> OWNER: BRENDAN JOSEPH CASSIN AND ISABEL B. CASSIN, TRUSTE; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| 20090505 US/AS-A [NMC | ASSIGNMENT <br> OWNER: CASSIN FAMILY PARTNERS, A CALIFORNIA LIMITED PARTN; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| 20090505 US/AS-A [NM | ASSIGNMENT <br> JOWNER: ROBERT S. CASSIN CHARITABLE TRUST UTA DATED 2/20/9; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| 20090505 USIAS-A [NM | ASSIGNMENT <br> JOWNER: LEVENSOHN VENTURE PARTNERS III ANNEX FUND, L.P., C; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 |

ASSIGNMENT
20090505 US/AS-A [NMC]OWNER: LEVENSOHN VENTURE PARTNERS III, L.P., CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.:REELFRAME:022641/0593 ASSIGNMENT
20090505US/AS-A [NMC]OWNER: LVP III ASSOCIATES FUND, L.P., CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 ASSIGNMENT
20090505 US/AS-A [NMC]OWNER: SAINTS CAPITAL FALCON, L.P., CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 ASSIGNMENT
20090505 US/AS-A [NMCJOWNER: RUSTIC CANYON VENTURES, SBIC, LP, CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 ASSIGNMENT
20090505US/AS-A (NMCJOWNER: ZACCARIA, BERT L., ARIZONA; EFFECTIVE DATE: 20090501
SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.,REELFRAME:022641/0593 ASSIGNMENT
20090505US/AS-A [NMC] OWNER: BRENDAN JOSEPH CASSIN, TRUSTEES OF THE CASSIN 1997; EFFECTIVE DATE:
20090505 US/AS-A [NMC] 20090501
SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 ASSIGNMENT
20090709 US/AS-A [NMC]OWNER: TEATON CAPITAL COMPANY, CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHONTONICS, INC.:REELIFRAME:02293210669 ASSIGNMENT
20090709 US/AS-A [NMC]OWNER: SAND HILL FINANCIAL COMPANY, CALIFORNIA; EFFECTIVE DATE: 20090501
SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHONTONICS, INC.;REELFRAME:022932/0669
ASSIGNMENT
20090709US/AS-A (NMC) OWNER: FORMATIVE VENTURES EMERGING TECHNOLOGIES FUND, LP;; EFFECTIVE DATE:
20090501SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHONTONICS,
INC.:REEUFRAME:022932/0669

[^2]| 20010823US/AS-A [NMC] | ASSIGNMENT <br> OWNER: CAPELLA PHOTONICS, INC. 19 GREAT OAKS BLVD., SUITE; EFFECTIVE DATE: 20010823 ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:WILDE, JEFFREY <br> P. IAR:REELFRAME:012118/0994 |
| :---: | :---: |
| 20010823US/AS-A [NMC] | ASSIGNMENT <br> OWNER: CAPELLA PHOTONICS, INC., CALIFORNIA; EFFECTIVE DATE: 20010823 <br> ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:WILDE, JEFFREY <br> P.;REEL/FRAME:012118/0994 |
| 20010823 US/API [EXM; | OSI FILING DETAILS |
| 20020919US/A1 [EXM; | First published patent application US2002131687 A1 20020919 [US20020131687] |
| 20030923US/B2 [PIF;POS | SIGranted patent as second publication <br> US6625346 B2 20030923 [US6625346] |
| 20050315US/RF-A [OPP] | REISSUE APPLICATION FILED EFFECTIVE DATE: 20041231 |
| 20090505US/AS-A [NM | ASSIGNMENT <br> JOWNER: SILICON VALLEY BANK, CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 |
| $20090505 \mathrm{US} / \mathrm{AS}-\mathrm{A}$ [NM | ASSIGNMENT <br> JOWNER: BINGHAM, RAYMOND H., CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| 20090505 US/AS-A [NM | ASSIGNMENT <br> JOWNER: BLACK DIAMOND VENTURES XIV, LLC., CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.;REEUFRAME:022641/0593 |
| 20090505 USIAS:A [NM | ASSIGNMENT <br> JOWNER: DONALD L. LUCAS, SUCC TTEE DONALD L. LUCAS PROFIT; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 |
| 20090505US/AS-A [NM | ASSIGNMENT <br> JOWNER: DONALD L. LUCAS, TTEE DONALD L. AND LYGIA LUCAS TR; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.,REELFRAME:022641/0593 |
| 20090505 US/AS-A [NMC] | ASSIGNMENT <br> JOWNER: LUCAS VENTURE GROUP I, LLC, CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 |
| 20090505US/AS-A [NM | ASSIGNMENT <br> JOWNER: THE LUCAS BROTHERS FOUNDATION, CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| 20090505US/AS-A [NM | ASSIGNMENT <br> OWNER: BRENDAN JOSEPH CASSIN AND ISABEL B. CASSIN, TRUSTE; EFFECTIVE DATE: <br> 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 |
| 20090505 US/AS-A INM | ASSIGNMENT <br> OWNER: CASSIN FAMILY PARTNERS, A CALIFORNIA LIMITED PARTN; EFFECTIVE DATE: <br> ] 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 |
| 20090505 US/AS-A [NMC | ASSIGNMENT <br> JOWNER: ROBERT S. CASSIN CHARITABLE TRUST UTA DATED 2/20/9; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 |
| 20090505 US/AS-A [NMC | ASSIGNMENT <br> JOWNER: LEVENSOHN VENTURE PARTNERS III ANNEX FUND, L.P., C; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEUFRAME:022641/0593 |
| $20090505 \mathrm{US} / \mathrm{AS}-\mathrm{A}$ [NMC | ASSIGNMENT <br> JOWNER: LEVENSOHN VENTURE PARTNERS III, L.P., CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| 20090505 USIAS-A [NMC | ASSIGNMENT <br> JOWNER: LVP III ASSOCIATES FUND, L.P., CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.:REELFRAME:022641/0593 |
| 20090505 US/AS-A [NMC | ASSIGNMENT <br> JOWNER: SAINTS CAPITAL FALCON, L.P., CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEUFRAME:022641/0593 |
| 20090505 US/AS-A [NMC | ASSIGNMENT <br> CJOWNER: RUSTIC CANYON VENTURES, SBIC, LP, CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.:REELFRAME:022641/0593 |

ASSIGNMENT
20090505US/AS-A [NMC]OWNER: ZACCARIA, BERT L., ARIZONA; EFFECTIVE DATE: 20090501
SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.:REEL/FRAME:022641/0593 ASSIGNMENT
20090505 US/AS-A [NMC] ${ }_{2}$ OWNER: BRENDAN JOSEPH CASSIN, TRUSTEES OF THE CASSIN 1997; EFFECTIVE DATE:
SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.REEL/FRAME:022641/0593 ASSIGNMENT
20090709 USIAS-A [NMC]OWNER: TEATON CAPITAL COMPANY, CALIFORNIA; EFFECTIVE DATE: 20090501
.............................. ASSIGNMENT
20090709US/AS-A [NMC]OWNER: SAND HILL FINANCIAL COMPANY, CALIFORNIA; EFFECTIVE DATE: 20090501
SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHONTONICS, INC.;REEL/FRAME:022932/0669
ASSIGNMENT
20090709US/AS-A [NMC] OWNER: FORMATIVE VENTURES EMERGING TECHNOLOGIES FUND, LP;; EFFECTIVE DATE:
20090501SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHONTONICS,
INC.;REEL/FRAME:022932/0669

ASSIGNMENT

| 20020214 US/AS-A [NMC] | ASSIGNMENT <br> OWNER: CAPELLA PHOTONICS, INC. 19 GREAT OAKS BLVD., SUITE ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:GARRETT, MARK H. IAR:REELFRAME:O12593/0177;SIGNING DATES FROM 20020115 TO 20020122 |
| :---: | :---: |
| 20020214USIAS-A [NMC] | ASSIGNMENT <br> OWNER: CAPELLA PHOTONICS, INC., CALIFORNIA <br> JASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:GARRETT, MARK H.;MANSURIPUR, MASUD;WILDE, JEFFREY P.;ANDOTHERS;REELFRAME:012593/0177;SIGNING DATES FROM 20020115 TO 20020122 |
| 20020214 US/API [EXM;PO | OS] FILING DETAILS ${ }^{\text {US7614502 } 20020214}$ [2002US-0076145] |
| 20020919US/A1 (EXM;F | First published patent application US2002131691 A1 20020919 [US20020131691] |
| 20040706 US/B2 [PIF;POS) | S] Granted patent as second publication <br> S] US6760511 B2 20040706 [US6760511] |
| 20050308 US/RF-A [OPP] ${ }^{R}$ | REISSUE APPLICATION FILED EFFECTIVE DATE: 20041231 |
| 20090505 US/AS-A [NMC] | ASSIGNMENT <br> JOWNER: SILICON VALLEY BANK, CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| 20090505 US/AS-A [NMC]O | ASSIGNMENT <br> JOWNER: BINGHAM, RAYMOND H., CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.:REELFRAME:022641/0593 |
| 20090505 US/AS-A [NMC] | ASSIGNMENT <br> JOWNER: BLACK DIAMOND VENTURES XIV, LLC., CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 |
| 20090505US/AS-A [NMC] | ASSIGNMENT <br> JOWNER: DONALD L. LUCAS, SUCC TTEE DONALD L. LUCAS PROFIT; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.;REEUFRAME:022641/0593 |
| 20090505 US/AS-A [NMC] | ASSIGNMENT <br> JOWNER: DONALD L. LUCAS, TTEE DONALD L. AND LYGIA LUCAS TR; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC:;REELFRAME:022641/0593 |
| 20090505 US/AS-A [NMC] | ASSIGNMENT <br> JOWNER: LUCAS VENTURE GROUP I, LLC, CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.:REELFRAME:022641/0593 |
| 20090505US/AS-A [NMC] | ASSIGNMENT <br> JOWNER: THE LUCAS BROTHERS FOUNDATION, CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.:REELFRAME:022641/0593 |
| 20090505US/AS-A [NMC] | ASSIGNMENT <br> OWNER: BRENDAN JOSEPH CASSIN AND ISABEL B. CASSIN, TRUSTE; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 |
| 5US/AS-A [NMC] | ASSIGNMENT <br> OWNER: CASSIN FAMILY PARTNERS, A CALIFORNIA LIMITED PARTN; EFFECTIVE DATE: <br> 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.:REEL/FRAME:022641/0593 |

ASSIGNMENT

|  | OWNER: ROBERT S. CASSIN CHARITABLE TRUST UTA DATED 2/20/9; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| :---: | :---: |
| 20090505 US/AS-A [NMC | ASSIGNMENT <br> OWNER: LEVENSOHN VENTURE PARTNERS III ANNEX FUND, L.P., C; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| 20090505 US/AS-A [NMC | ASSIGNMENT <br> OWNER: LEVENSOHN VENTURE PARTNERS III, L.P., CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 |
| 20090505 US/AS-A [NMC | ASSIGNMENT <br> OWNER: LVP III ASSOCIATES FUND, L.P., CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| 20090505 US/AS-A [NMC | ASSIGNMENT <br> OWNER: SAINTS CAPITAL FALCON, L.P., CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 |
| 20090505US/AS-A [NMC | ASSIGNMENT <br> OWNER: RUSTIC CANYON VENTURES, SBIC, LP, CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| 20090505 US/AS-A [NMC | ASSIGNMENT <br> OWNER: ZACCARIA, BERT L., ARIZONA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| 20090505 US IAS-A [NMC | ASSIGNMENT <br> OWNER: BRENDAN JOSEPH CASSIN, TRUSTEES OF THE CASSIN 1997; EFFECTIVE DATE: $20090501$ <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
| 20090709US/AS-A [NMC | ASSIGNMENT <br> OWNER: TEATON CAPITAL COMPANY, CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHONTONICS, INC.;REELFRAME:022932/0669 |
| 20090709US/AS-A [NMC | ASSIGNMENT <br> JOWNER: SAND HILL FINANCIAL COMPANY, CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHONTONICS, INC.;REEL/FRAME:022932/0669 |
| 20090709 US/AS-A [NMC | ASSIGNMENT <br> OWNER: FORMATIVE VENTURES EMERGING TECHNOLOGIES FUND, LP,; EFFECTIVE DATE: 20090501SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHONTONICS, <br> INC.;REELJFRAME:022932/0669 |

IN1476/CHENP/2003 A, IN200748 B
Legal Status N/A

## Alive: USRE39331 E1

| 20041231 US/API [EXM;POS] ${ }^{\text {FILING DETAILS }}$ US11027584 20041231 [2004US-0027584] |  |
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| 20061010 US/E1 [PIF;POS] Reissue Patent ${ }^{\text {RSE39331 E1 }} 20061010$ [USRE39331] |  |
| ASSIGNMENT <br> 20090505 US/AS-A [NMC]OWNER: SILICON VALLEY BANK, CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |  |
| ASSIGNMENT <br> 20090505US/AS-A [NMCJOWNER: BINGHAM, RAYMOND H., CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.:REEL/FRAME:022641/0593 |  |
| ASSIGNMENT <br> 20090505 US/AS-A [NMCJOWNER: BLACK DIAMOND VENTURES XIV, LLC., CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.:REELFRAME:022641/0593 |  |
| ASSIGNMENT <br> 20090505 US/AS-A [NMCJOWNER: DONALD L. LUCAS, SUCC TTEE DONALD L. LUCAS PROFIT; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.,:REELFRAME:022641/0593 |  |
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| ASSIGNMENT <br> 20090505 US/AS-A [NMC]OWNER: LUCAS VENTURE GROUP I, LLC, CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.:REELFRAME:022641/0593 |  |
| ASSIGNMENT <br> 20090505 US/AS-A [NMC]OWNER: THE LUCAS BROTHERS FOUNDATION, CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.:REEL/FRAME:022641/0593 |  |
| ASSIGNMENTOWNER: BRENDAN JOSEPH CASSIN AND ISABEL B. CASSIN, TRUSTE; EFFECTIVE DATE:20090501 |  |
| ASSIGNMENT |  |
| ASSIGNMENT <br> 20090505 US/AS-A [NMC]OWNER: ROBERT S. CASSIN CHARITABLE TRUST UTA DATED 2/20/9; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |  |
| ASSIGNMENT <br> 20090505 US/AS-A [NMCJOWNER: LEVENSOHN VENTURE PARTNERS III ANNEX FUND, L.P., C; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS. INC.;REEL/FRAME:022641/0593 |  |
| ASSIGNMENT20090505 USIAS-A [NMC]OWNER: LEVENSOHN VENTURE PARTNERS III, L.P., CALIFORNIA; EFFECTIVE DATE: 20090501SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 |  |
| ASSIGNMENT <br> 20090505 US/AS-A [NMC]OWNER: LVP III ASSOCIATES FUND, L.P., CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 |  |
| ASSIGNMENT <br> 20090505US/AS-A [NMC]OWNER: SAINTS CAPITAL FALCON, L.P., CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEUFRAME:022641/0593 |  |
| ASSIGNMENT <br> 20090505 USIAS-A [NMC]OWNER: RUSTIC CANYON VENTURES, SBIC, LP, CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.:REELFRAME:022641/0593 |  |
| ASSIGNMENT20090505 US/AS-A [NMC]OWNER: ZACCARIA, BERT L., ARIZONA; EFFECTIVE DATE: 20090501SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |  |
| ASSIGNMENT <br> 20090505 US/AS-A [NMC] <br> OWNER: BRENDAN JOSEPH CASSIN, TRUSTEES OF THE CASSIN 1997; EFFECTIVE DATE: <br> 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |  |
| ASSIGNMENT <br> 20090709 USIAS-A [NMC]OWNER: TEATON CAPITAL COMPANY, CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHONTONICS, INC.;REELFRAME:022932/0669 |  |
| ASSIGNMENT20090709 USIAS-A [NMC]OWNER: SAND HILL FINANCIAL COMPANY, CALIFORNIA; EFFECTIVE DATE: 20090501SECURITY AGREEMENT;ASSIGNOR:CAPELIA PHONTONICS, INC.;REELFRAME:022932/0669 |  |
| ASSIGNMENT <br> OWNER: FORMATIVE VENTURES EMERGING TECHNOLOGIES FUND, LP;; EFFECTIVE DATE: 20090501SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHONTONICS, INC.:REELFRAME:022932/0669 |  |
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| 20041231USIAPI [EXM;POS] US11027586 20041231 [2004US-0027586] |  |
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| 20061114 US/E1 [PIF;POS] $\begin{aligned} & \text { Reissue Patent } \\ & \text { USRE39397 E1 } \\ & 20061114\end{aligned}$ [USRE39397] |  |
| 20090505 USIAS-A [NMC] | ASSIGNMENT <br> OWNER: SILICON VALLEY BANK, CALIFORNIA; EFFECTIVE DATE: 2009050 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRA |
|  | ASSIGNMENT <br> OWNER: BINGHAM, RAYMOND H., CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAM |
|  | ASSIGNMENT <br> OWNER: BLACK DIAMOND VENTURES XIV, LLC., CALIFORNIA; EFFECTIVE DATE: 200905 |
|  | ASSIGNMENT <br> OWNER: DONALD L. LUCAS, SUCC TTEE DONALD L. LUCAS PROFIT; EFFECTIVE DATE: 2008 <br> SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.:REEL/FRAME:022641/0593 |
|  | ASSIGNMENT <br> OWNER: DONALD L. LUCAS, TTEE DONALD L. AND LYGIA LUCAS TR; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 |
|  | ASSIGNMENT <br> OWNER: LUCAS VENTURE GROUP I, LLC, CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:02264 |
|  | ASSIGNMENT <br> OWNER: THE LUCAS BROTHERS FOUNDATION, CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT:ASSIGNOR:CAPELLA PHOTONICS, INC.:REELFRAME:022641/0593 |
|  | ASSIGNMENT <br> OWNER: BRENDAN JOSEPH CASSIN AND ISABEL B. CASSIN, TRUSTE; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |
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| ASSIGNMENT <br> 20090505US/AS-A [NMC]OWNER: ROBERT S. CASSIN CHARITABLE TRUST UTA DATED 2/20/9; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.:REELFRAME:022641/0593 |  |
| ASSIGNMENT <br> 20090505 US/AS-A [NMCJOWNER: LEVENSOHN VENTURE PARTNERS III ANNEX FUND, L.P., C; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.,REEL/FRAME:022641/0593 |  |
| ASSIGNMENT <br> 20090505US/AS-A [NMC]OWNER: LEVENSOHN VENTURE PARTNERS III, L.P., CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |  |
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| ASSIGNMENT <br> 20090505 USIAS-A [NMC]OWNER: SAINTS CAPITAL FALCON, L.P., CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC. REELFRAME:022641/0593 |  |
| ASSIGNMENT <br> 20090505 US/AS-A [NMC]OWNER: RUSTIC CANYON VENTURES, SBIC, LP, CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |  |
| ASSIGNMENT20090505US/AS-A (NMC]OWNER: ZACCARIA, BERT L., ARIZONA; EFFECTIVE DATE: 20090501SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REEL/FRAME:022641/0593 |  |
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| ASSIGNMENT20090709 US/AS-A [NMC]OWNER: TEATON CAPITAL COMPANY, CALIFORNIA; EFFECTIVE DATE: 20090501SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHONTONICS, INC.;REEL/FRAME:022932/0669 |  |
| ASSIGNMENT <br> 20090709 US/AS-A [NMC]OWNER: SAND HILL FINANCIAL COMPANY, CALIFORNIA; EFFECTIVE DATE: 20090501 <br> SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHONTONICS, INC.;REELFRAME:022932/0669 |  |
|  | ASSIGNMENT <br> OWNER: FORMATIVE VENTURES EMERGING TECHNOLOGIES FUND, LP;; EFFECTIVE DATE: 20090501SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHONTONICS, <br> INC.;REEL/FRAME:022932/0669 |

## Alive: USRE39411 E1

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20041231US/API [EXM;POS] FILING DETAILS
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20061128US/E1 [PIF;POS] Reissue Patent
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## Alive: USRE39515 E1

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20070313US/E1 [PIF;POS] Reissue Patent
20070313US/E1 [PIF;POS] USRE39515 E1 20070313 [USRE39515]
20090112US/PRDP-A [POS;RES] PATENT REINSTATED DUE TO THE ACCEPTANCE OF A LATE MAINTENANCE FEE
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20090505US/AS-A [NMC] OWNER: BRENDAN JOSEPH CASSIN AND ISABEL. B. CASSIN, TRUSTE; EFFECTIVE DATE:
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    SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.:REELFRAME:022641/0593
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20090505US/AS-A [NMC] OWNER: CASSIN FAMILY PARTNERS, A CALIFORNIA LIMITED PARTN: EFFECTIVE DATE:
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20090505US/AS-A (NMCJOWNER: ROBERT S. CASSIN CHARITABLE TRUST UTA DATED 2/20/9; EFFECTIVE DATE: }2009050
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20090505US/AS-A [NMC]OWNER: LVP III ASSOCIATES FUND, L.P., CALIFORNIA; EFFECTIVE DATE: }2009050
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20090505US/AS-A [NMC]OWNER: ZACCARIA, BERT L.,ARIZONA; EFFECTIVE DATE: }2009050
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2009070gus/AS-A [NMC] OWNER: FORMATIVE VENTURES EMERGING TECHNOLOGIES FUND, LP.; EFFECTIVE DATE:
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## Alive: USRE39525 E1

| 20041231 US/API [EXM;POS] FILING DETAILS ${ }^{\text {US11027587 } 20041231}$ [2004US-0027587] |  |
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| ASSIGNMENT <br> 20090505 US/AS-A [NMC]OWNER: SILICON VALLEY BANK, CALIFORNIA; EFFECTIVE DATE: 20090501 SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHOTONICS, INC.;REELFRAME:022641/0593 |  |
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| 20090709US/AS-A (NMC | ASSIGNMENT <br> OWNER: FORMATIVE VENTURES EMERGING TECHNOLOGIES FUND, LP;; EFFECTIVE DATE: 20090501SECURITY AGREEMENT;ASSIGNOR:CAPELLA PHONTONICS, <br> INC.:REELFRAME:022932/0669 |

## EAST Search History

## EAST Search History (Prior Art)

| Ref \# | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
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| L2 | 20 | $\begin{aligned} & \text { (385/24,11,37,34.ccls.) } \\ & \text { and (wavelength near5 } \\ & \text { (separating or routing)) } \\ & \text { and (optic\$ near5 (fiber } \\ & \text { or fibre) near5 } \\ & \text { collimators) and } \\ & \text { (wavelength near5 } \\ & \text { (separator or splitter)) } \\ & \text { and (lens or (beam near5 } \\ & \text { focus } \$) \text { ) and ((mirror or } \\ & \text { mems or micromirror or } \\ & \text { micro-mirror) near5 } \\ & \text { (pivot or pivotable or } \\ & \text { rotate or rotatable)) } \end{aligned}$ | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 12: 26 \end{aligned}$ |
| L3 | 26 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 (pivot or pivotable or rotate or rotatable)) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 12: 26 \end{aligned}$ |


| L4 | 25 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$) ) and ((mirror or mems or micromirror or micro-mirror) near5 (pivot or pivotable or rotate or rotatable)) and (control near5 power near5 spectral near5 channels) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 12: 27 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L5 | 0 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 (pivot or pivotable or rotate or rotatable)) and (control near5 power near5 received near5 channels) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 12: 30 \end{aligned}$ |
| L6 | 26 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 (pivot or pivotable or rotate or rotatable)) and ((control or monitor) near5 power near5 channels) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 12: 30 \end{aligned}$ |


| L7 | 24 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 (pivot or pivotable or rotate or rotatable)) and ((control or monitor) near5 power near5 channels) and (servo near5 control) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 12: 31 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L8 | 18 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 (pivot or pivotable or rotate or rotatable)) and ((control or monitor) near5 power near5 channels) and (servo near5 control) and (collimator near5 alignment near5 rotatable near5 (one or two) near5 axes) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 12: 32 \end{aligned}$ |
| L9 | 23 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 (pivot or pivotable or rotate or rotatable)) and ((control or monitor) near5 power near5 channels) and (servo | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 12: 33 \end{aligned}$ |


|  |  | near5 control) and (gratings near5 (diffraction or holographic or echelle or curved)) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L10 | 17 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 (pivot or pivotable or rotate or rotatable)) and ((control or monitor) near5 power near5 channels) and (servo near5 control) and (prisms nera5 dispersing) | $\begin{aligned} & \text { US-PGPUB; } \\ & \text { USPAT; } \\ & \text { USOCR; FPRS; } \\ & \text { EPO; JPO; } \\ & \text { DERWENT; } \\ & \text { IBM_TDB } \end{aligned}$ | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 12: 34 \end{aligned}$ |
| L11 | 3 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 (pivot or pivotable or rotate or rotatable)) and ((control or monitor) near5 power near5 channels) and (servo near5 control) and (auxiliary near5 (collimators or separators or lens or focus or micromirror or micromirror or mems)) | $\begin{aligned} & \text { US-PGPUB; } \\ & \text { USPAT; } \\ & \text { USOCR; FPRS; } \\ & \text { EPO; JPO; } \\ & \text { DERWENT; } \\ & \text { IBM_TDB } \end{aligned}$ | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 12: 37 \end{aligned}$ |
| S1 | 2 | "6498872".pn. | $\begin{aligned} & \text { US-PGPUB; } \\ & \text { USPAT; } \\ & \text { USOCR; FPRS; } \\ & \text { EPO; JPO; } \\ & \text { DERWENT; } \\ & \text { IBM_TDB } \end{aligned}$ | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 10: 36 \end{aligned}$ |


| S2 | 2 | "6567574".pn. | $\begin{aligned} & \text { US-PGPUB; } \\ & \text { USPAT; } \\ & \text { USOCR; FPRS; } \\ & \text { EPO; JPO; } \\ & \text { DERWENT; } \\ & \text { IBM_TDB } \end{aligned}$ | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 10: 38 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S3 | 2 | "6256430".pn. | US-PGPUB; 'USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 10: 40 \end{aligned}$ |
| 54 | 2 | "6631222".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 10: 41 \end{aligned}$ |
| 55 | 2 | "6625346".pn. | $\begin{aligned} & \text { US-PGPUB; } \\ & \text { USPAT; } \\ & \text { USOCR; FPRS; } \\ & \text { EPO; JPO; } \\ & \text { IERWENT; } \\ & \text { IBM_TDB } \end{aligned}$ | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 10: 44 \end{aligned}$ |
| S6 | 1 | re39397.pn. | $\begin{aligned} & \text { US-PGPUB; } \\ & \text { USPAT; } \\ & \text { USOCR; FPRS; } \\ & \text { EPO; JPO; } \\ & \text { DERWENT; } \\ & \text { IBM_IDB } \end{aligned}$ | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 10: 46 \end{aligned}$ |

## EAST Search History (Interference)

| Ref \# | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
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| L12 | 2 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus \$)) and ((mirror or mems or micromirror or micromirror) near5 (pivot or pivotable or rotate or rotatable)) and ((control or monitor) near5 power near5 channels) and (servo near5 control) and (auxiliary near5 | $\begin{aligned} & \text { USPAT; } \\ & \text { UPAD } \end{aligned}$ | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 12: 37 \end{aligned}$ |


|  |  | \|(collimators or separators or lens or focus or micromirror or micromirror or mems)) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L13 | 11 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus \$)) and ((mirror or mems or micromirror or micromirror) near5 (pivot or pivotable or rotate or rotatable)) and ((control or monitor) near5 power near5 channels) and (servo near5 control) and (prisms nera5 dispersing) | USPAT; UPAD | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 12: 37 \end{aligned}$ |
| L14 | 13 | (385/24,11,37,34.ccls.) and (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus \$)) and ((mirror or mems or micromirror or micromirror) near5 (pivot or pivotable or rotate or rotatable)) | USPAT; UPAD | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 12: 38 \end{aligned}$ |
| L15 | 14 | (385/24,11,37,34.ccls.) and (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) | USPAT; UPAD | OR | OFF | $\begin{aligned} & 2011 / 02 / 15 \\ & 12: 38 \end{aligned}$ |

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## EAST Search History (Prior Art)

| Ref <br> \# | Hits | Search Query | DBs | Defa <br> ult <br> Oper <br> ator | Plurals | Time Stamp |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 21 | (385/24,11,37,34.ccls.) and (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) | US-PGPUB; <br> USPAT; <br> USOCR; <br> FPRS; <br> EPO; JPO; <br> DERWENT; <br> IBM_TDB | OR | OFF | 2011/02/15 12:24 |
| L2 | 20 | (385/24,11,37,34.ccls.) and <br> (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 (pivot or pivotable or rotate or rotatable)) | US-PGPUB; <br> USPAT; <br> USOCR; <br> FPRS; <br> EPO; JPO; <br> DERWENT; <br> IBM_TDB | OR | OFF | 2011/02/15 12:26 |
| L3 | 26 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and <br> (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 (pivot or pivotable or rotate or rotatable)) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/02/15 12:26 |
| L4 | 25 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 (pivot or pivotable or rotate or rotatable)) and (control near5 power near5 spectral near5 channels) | US-PGPUB; <br> USPAT; <br> USOCR; <br> FPRS; <br> EPO; JPO; <br> DERWENT; <br> IBM_TDB | OR | OFF | 2011/02/15 12:27 |
| L5 | 0 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 (pivot or pivotable or rotate or rotatable)) and (control near5 power near5 received near5 channels) | US-PGPUB; <br> USPAT; <br> USOCR; <br> FPRS; <br> EPO; JPO; <br> DERWENT; <br> IBM_TDB | OR | OFF | 2011/02/15 12:30 |

## EAST Search History (Prior Art)

| L6 | 26 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 (pivot or pivotable or rotate or rotatable)) and ((control or monitor) near5 power near5 channels) | US-PGPUB; USPAT; <br> USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/02/15 12:30 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L7 | 24 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or <br> fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 <br> (pivot or pivotable or rotate or rotatable)) and ((control or monitor) near5 power near5 channels) and (servo near5 control) | US-PGPUB; USPAT; <br> USOCR; <br> .FPRS; <br> EPO; JPO; <br> DERWENT; <br> IBM_TDB | OR | OFF | 2011/02/15 12:31 |
| L8 | 18 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or <br> fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus $\$$ )) and ((mirror or mems or micromirror or micro-mirror) near5 <br> (pivot or pivotable or rotate or rotatable)) and ((control or monitor) near5 power near5 channels) and (servo near5 control) and (collimator near5 alignment near5 rotatable near5 (one or two) near5 axes) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/02/15 12:32 |
| L9 | 23 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 <br> (pivot or pivotable or rotate or rotatable)) and ((control or monitor) near5 power near5 channels) and (servo near5 control) and (gratings near5 (diffraction or holographic or echelle or curved)) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/02/15 12:33 |

## EAST Search History (Prior Art)

| L10 | 17 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus $\$$ )) and ((mirror or mems or micromirror or micro-mirror) near5 <br> (pivot or pivotable or rotate or rotatable)) and ((control or monitor) near5 power near5 channels) and (servo near5 control) and (prisms nera5 dispersing) | US-PGPUB; <br> USPAT; <br> USOCR; <br> FPRS; <br> EPO; JPO; <br> DERWENT; <br> IBM_TDB | OR | OFF | 2011/02/15 12:34 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L11 | 3 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or <br> fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 <br> (pivot or pivotable or rotate or rotatable)) and ((control or monitor) near5 power near5 channels) and (servo near5 control) and (auxiliary near5 (collimators or separators or lens or focus or micromirror or micro-mirror or mems)) | US-PGPUB; <br> USPAT; <br> USOCR; <br> FPRS; <br> EPO; JPO; <br> DERWENT; <br> IBM_TDB | OR | OFF | 2011/02/15 12:37 |
| S1 | 2 | "6498872".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/02/15 10:36 |
| S2 | 2 | "6567574".pn. | US-PGPUB; <br> USPAT; <br> USOCR; <br> FPRS; <br> EPO; JPO; <br> DERWENT; <br> IBM_TDB | OR | OFF | 2011/02/15 10:38 |
| S3 | 2 | "6256430".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/02/15 10:40 |

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## EAST Search History (Prior Art)

| S4 | 2 | "6631222".pn. | US-PGPUB; USPAT; <br> USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/02/15 10:41 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S5 | 2 | "6625346".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/02/15 10:44 |
| S6 | 1 | re39397.pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2011/02/15 10:46 |

EAST Search History (Interference)

| Ref <br> \# | Hits | Search Query | DBs | Defa ult Oper ator | Plurals | Time Stamp |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L12 | 2 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 (pivot or pivotable or rotate or rotatable)) and ((control or monitor) near5 power near5 channels) and (servo near5 control) and (auxiliary near5 (collimators or separators or lens or focus or micromirror or micro-mirror or mems)) | USPAT; <br> UPAD | OR | OFF | 2011/02/15 12:37 |

## EAST Search History (Interference)

| L13 | 11 | (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 <br> (pivot or pivotable or rotate or rotatable)) and ((control or monitor) near5 power near5 channels) and (servo near5 control) and (prisms nera5 dispersing) | USPAT; <br> UPAD | OR | OFF | 2011/02/15 12:37 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L14 | 13 | (385/24,11,37,34.ccls.) and <br> (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) and (lens or (beam near5 focus\$)) and ((mirror or mems or micromirror or micro-mirror) near5 (pivot or pivotable or rotate or rotatable)) | USPAT; <br> UPAD | OR | OFF | 2011/02/15 12:38 |
| L15 | 14 | (385/24,11,37,34.ccls.) and (wavelength near5 (separating or routing)) and (optic\$ near5 (fiber or fibre) near5 collimators) and (wavelength near5 (separator or splitter)) | USPAT; <br> UPAD | OR | OFF | 2011/02/15 12:38 |

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE 

Applicant: Jeffrey P. Wilde, et. al
Serial No.: 12/815,930 Group Art Unit: 2883
Filed: 06/15/2010 Examiner: Healy, Brian
Title: Reconfigurable Optical Add-Drop Multiplexers with Servo Control and Dynamic Spectral Power Management Capabilities
(Reissue of Patent No. RE 39,397; Issued November 14, 2006)

## AMENDMENT

And
SUBMISSION OF SECOND REPLACEMENT REISSUE DECLARATION

## Mail Stop REISSUE

Commissioner for Patents
P.O. Box 1450

Alexandria, Virginia 22313-1450

Dear Sir:

In response to the Office Action of January 7, 2011, please amend this application as indicated, and replace the Replacement Reissue Application Declaration by Assignee submitted December 3, 2010, with the attached Second Replacement Reissue Application Declaration by Assignee.

## Amendment to Claims

1. (Amended) A wavelength-separating-routing apparatus, comprising:
a) multiple fiber collimators, providing an input port for a multi-wavelength optical signal and a plurality of output ports;
b) a wavelength-separator, for separating said multi-wavelength optical signal from said input port into multiple spectral channels;
c) a beam-focuser, for focusing said spectral channels into corresponding spectral spots; and
d) a spatial array of channel micromirrors positioned such that each channel micromirror receives one of said spectral channels, said channel micromirrors being pivotal about two axes and being individually and continuously controllable to reflect said corresponding received spectral channels into any selected ones of said output ports and to control the power of said received spectral channels coupled into said output ports.
2. (Original) The wavelength-separating-routing apparatus of claim 1 further comprising a servo-control assembly, in communication with said channel micromirrors and said output ports, for providing control of said channel micromirrors and thereby maintaining a predetermined coupling of each reflected spectral channel into one of said output ports.
3. (Original) The wavelength-separating-routing apparatus of claim 2 wherein said servo-control assembly comprises a spectral monitor for monitoring power levels
of said spectral channels coupled into said output ports, and a processing unit responsive to said power levels for providing control of said channel micromirrors.
4. (Original) The wavelength-separating-routing apparatus of claim 3 wherein said servo-control assembly maintains said power levels at a predetermined value.
5. (Original) The wavelength-separating-routing apparatus of claim 1 further comprising an array of collimator-alignment mirrors, in optical communication with said wavelength-separator and said fiber collimators, for adjusting an alignment of said multi-wavelength optical signal from said input port and directing said reflected spectral channels into said output ports.
6. (Original) The wavelength-separating-routing apparatus of claim 5 wherein each collimator-alignment mirror is rotatable about one axis.
7. (Original) The wavelength-separating-routing apparatus of claim 5 wherein each collimator-alignment mirror is rotatable about two axes.
8. (Original) The wavelength-separating-routing apparatus of claim 5 further comprising first and second arrays of imaging lenses, in a telecentric arrangement with said collimator-alignment mirrors and said fiber collimators.
9. (Original) The wavelength-separating-routing apparatus of claim 1 wherein
each channel micromirror is continuously pivotable about one axis.
10. (Original) The wavelength-separating-routing apparatus of claim 1 wherein each channel micromirror is pivotable about two axes.
11. (Original) The wavelength-separating-routing apparatus of claim 10 wherein said fiber collimators are arranged in a two-dimensional array.
12. (Original) The wavelength-separating-routing apparatus of claim 1 wherein each channel micromirror is a silicon micromachined mirror.
13. (Original) The wavelength-separating-routing apparatus of claim 1 wherein said fiber collimators are arranged in a one-dimensional array.
14. (Original) The wavelength-separating-routing apparatus of claim 1 wherein said beam-focuser comprises a focusing lens having first and second focal points.
15. (Original) The wavelength-separating-routing apparatus of claim 14 wherein said wavelength-separator and said channel micromirrors are placed respectively at said first and second focal points of said focusing lens.
16. (Original) The wavelength-separating-routing apparatus of claim 1
wherein said beam-focuser comprises an assembly of lenses.
17. (Original) The wavelength-separating-routing apparatus of claim 1 wherein said wavelength-separator comprises an element selected from the group consisting of ruled diffraction gratings, halographic diffraction gratings, echelle gratings, curved diffraction gratings, and dispersing gratings.
18. (Original) The wavelength-separating-routing apparatus of claim 1 further comprising a quarter-wave plate optically interposed between said wavelengthseparator and said channel micromirrors.
19. (Original) The wavelength-separating-routing apparatus of claim 1 wherein each output port carries a single one of said spectral channels.
20. (Original) The wavelength-separating-routing apparatus of claim 19 further comprising one or more optical sensors, optically coupled to said output ports.
21. ( Original) A servo-based optical apparatus comprising:
a) multiple fiber collimators, providing an input port for a multi-wavelength optical signal and a plurality of output ports;
b) a wavelength-separator, for separating said multi-wavelength optical signal from said input port into multiple spectral channels;
c) a beam-focuser, for focusing said spectral channels into corresponding spectral spots; and
d) a spatial array of channel micromirrors positioned such that each channel micromirror receives one of said spectral channels, said channel micromirrors being individually controllable to reflect said spectral channels into selected ones of said output ports; and
e) a servo-control assembly, in communication with said channel micromirrors and said output ports, for maintaining a predetermined coupling of each reflected spectral channel into one of said output ports.
22. (Original) The servo-based optical apparatus of claim 21 wherein said servo-control assembly comprises a spectral monitor for monitoring power levels of said spectral channels coupled into said output ports, and a processing unit responsive to said power levels for providing control of said channel micromirrors.
23. (Original) The servo-based optical apparatus of claim 22 wherein said servo-control assembly maintains said power levels at a predetermined value.
24. (Original) The servo-based optical apparatus of claim 21 further comprising an array of collimator-alignment mirrors, in optical communication with said wavelength-separator and said fiber collimators, for adjusting an alignment of said multi-wavelength optical signal from said input port and directing said reflected spectral channels into said output ports.
25. (Original) The servo-based optical apparatus of claim 24 further comprising first and second arrays of imaging lenses, in a telecentric arrangement with said collimator-alignment mirrors and said fiber collimators.
26. (Original) The servo-based optical apparatus of claim 24 wherein each collimator-alignment mirror is rotatable about at least one axis.
27. (Original) The servo-based optical apparatus of claim 21 wherein each channel micromirror is continuously pivotable about at least one axis.
28. (Original) The servo-based optical apparatus of claim 21 wherein each channel micromirror is a silicon micromachined mirror.
29. (Original) The servo-based optical apparatus of claim 21 wherein said wavelength-separator comprises an element selected from the group consisting of ruled diffraction gratings, holographic diffraction gratings, echelle gratings, curved diffraction gratings, and dispersing prisms.
30. (Original) The servo-based optical apparatus of claim 21 wherein said beam-focuser comprises one or more lenses.
31. (Original) An optical apparatus comprising:
a) an array of fiber collimators, providing an input port for a multi-wavelength optical signal and a plurality of output ports;
b) a wavelength-separator, for separating said multi-wavelength optical signal from said input port into multiple spectral channels;
c) a beam-focuser, for focusing said spectral channels into corresponding spectral spots;
d) a spatial array of channel micromirrors positioned such that each channel micromirror receives one of said spectral channels, said channel micromirrors being individually and continuously controllable to reflect said spectral channels into selected ones of said output ports; and
e) a one-dimensional array of collimator-alignment mirrors, for adjusting an alignment of said multi-wavelength optical signal from said input port and directing said reflected spectral channels into said output ports.
32. (Original) The optical apparatus of claim 31 further comprising a servocontrol assembly, in communication with said channel micromirrors, said collimatoralignment mirrors, and said output ports, for providing control of said channel micromirrors along with said collimator-alignment mirrors and thereby maintaining a predetermined coupling of each reflected spectral channel into one of said output ports.
33. (Original) The optical apparatus of claim 32 wherein said servo-control assembly comprises
a spectral monitor for monitoring power levels of said spectral channels coupled into said output ports, and
a processing unit responsive to said power levels for providing control of said channel micromirrors and said collimator-alignment mirrors.
34. (Original) The optical apparatus of claim 31 wherein each channel micromirror is continuously pivotable about at least one axis.
35. (Original) The optical apparatus of claim 31 wherein each collimatoralignment mirror is rotatable about at least one axis.
36. (Original) The optical apparatus of claim 31 further comprising first and second arrays of imaging lenses, in a telecentric arrangement with said collimatoralignment mirrors and said fiber collimators.
37. (Original) An optical apparatus comprising:
a) an array of fiber collimators, providing an input port for a multi-wavelength optical signal and a plurality of output ports;
b) a wavelength-separator, for separating said multi-wavelength optical signal from said input port into multiple spectral channels;
c) a beam-focuser, for focusing said spectral channels into corresponding spectral spots;
d) a spatial array of channel micromirrors positioned such that each channel micromirror receives one of said spectral channels, said channel micromirrors being individually and continuously controllable to reflect said spectral channels into selected ones of said output ports; and
e) a two-dimensional array of collimator-alignment mirrors, for adjusting an alignment of said multi-wavelength optical signal from said input port and directing said reflected spectral channels into said output ports.
38. (Original) The optical apparatus of claim 37 further comprising a servo-control assembly, in communication with said channel micromirrors, and
collimator-alignment mirrors, and said output ports, for providing control of said channel micromirrors along with said collimator-alignment mirrors and thereby maintaining a predetermined coupling of each reflected spectral channel into one of said output ports.
39. (Original) The optical apparatus of claim 38 wherein said servo-control assembly comprises a spectral monitor for monitoring power levels of said spectral channels coupled into said output ports, and a processing unit responsive to said power levels for providing control of said channel micromirrors and said collimatoralignment mirrors.
40. (Original) The optical apparatus of claim 37 wherein each collimator-
alignment mirror is rotatable about at least one axis.
41. (Original) The optical apparatus of claim 37 wherein each channel micromirror is continuously pivotable about at least one axis.
42. (Original) The optical apparatus of claim 41 wherein each channel micromirrors is pivotable about two axes, and wherein said fiber collimators are arranged in a two-dimensional array.
43. (Original) The optical apparatus of claim 37 further comprising first and second arrays of imaging lenses, in a telecentric arrangement with said collimatoralignment mirrors and said fiber collimators.
44. (Amended) An optical system comprising a wavelength-separatingrouting apparatus, wherein said wavelength-separating-routing apparatus includes:
a) an array of fiber collimators, providing an input port for a multi-wavelength optical signal and a plurality of output ports including a pass-through port and one or more drop ports;
b) a wavelength-separator, for separating said multi-wavelength optical signal from said input port into multiple spectral channels;
c) a beam-focuser, for focusing said spectral channels into corresponding spectral spots; and
a spatial array of channel micromirrors positioned such that each channel micromirror receives one of said spectral channels, said channel micromirrors being pivotal about two axes and being individually and continuously controllable to reflect said corresponding received spectral channels into any selected ones of said output ports and to control the power of said received spectral channels coupled into said output ports, whereby said pass-through port receives a subset of said spectral channels.
45. (Original) The optical system of claim 44 further comprising a servocontrol assembly, in communication with said channel micromirrors and said output ports, for providing control of said channel micromirrors and thereby maintaining a predetermined coupling of each reflected spectral channel into one of said output ports.
46. (Original) The optical system of claim 45 wherein said servo-control assembly comprises a spectral monitor for monitoring power levels of said spectral channels coupled into said output ports, and a processing unit responsive to said power levels for providing control of said channel micromirrors.
47. (Original) The optical system of claim 44 further comprising an array of collimator-alignment mirrors, in optical communication with said wavelengthseparator and said fiber collimators, for adjusting an alignment of said multiwavelength optical signal from said input port and directing said reflected spectral
channels into said output ports.
48. (Original) The optical system of claim 47 further comprising first and second arrays of imaging lenses, in a telecentric arrangement with said collimatoralignment mirrors and said fiber collimators.
49. (Original) The optical system of claim 47 wherein each collimatoralignment mirror is rotatable about at least one axis.
50. (Original) The optical system of claim 44 wherein each channel micromirror is pivotable about at least one axis.
51. (Original) The optical system of claim 44 wherein each channel micromirror is a silicon micromachined mirror.
52. (Original) The optical system of claim 44 wherein said beam-focuser comprises a focusing lens having first and second focal points, and wherein said wavelength-separator and said channel micromirrors are placed respectively at said first and second focal points.
53. (Original) The optical system of claim 44 wherein said wavelengthseparator comprises an element selected from the group consisting of ruled diffraction gratings, holographic diffraction gratings, echelle gratings, curved
diffraction gratings, and dispersing prisms.
54. (Original) The optical system of claim 44 further comprising a quarterwave plate optically interposed between said wavelength-separator and said channel micromirrors.
55. (Original) The optical system of claim 44 further comprising an auxiliary wavelength-separating-routing apparatus, including:
a) multiple auxiliary fiber collimators, providing a plurality of auxiliary input ports and an exiting port;
b) an auxiliary wavelength-separator;
c) an auxiliary beam-focuser; and
d) a spatial array of auxiliary channel micromirrors;
wherein said subset of said spectral channels in said pass-through port and one or more add spectral channels are directed into said auxiliary input ports, and multiplexed into an output optical signal directed into said exiting port by way of said auxiliary wavelength-separator, said auxiliary beam-focuser and said auxiliary channel micromirrors.
56. (Original) The optical system of claim 55 wherein said auxiliary channel micromirrors are individually pivotable.
57. (Original) The optical system of claim 55 wherein each auxiliary channel
micromirror is pivotable continuously about at least one axis.
58. (Original) The optical system of claim 55 wherein each auxiliary channel micromirror is a silicon micromachined mirror.
59. (Original) The optical system of claim 55 wherein said auxiliary wavelength-separator comprises an element selected from the group consisting of ruled diffraction gratings, holographic diffraction gratings, echelle gratings, curved diffraction gratings, and dispersing prisms.
60. (Original) The optical system of claim 55 wherein said pass-through port constitutes one of said auxiliary input ports.
61. (Amended) A method of performing dynamic wavelength separating and routing, comprising:
a) receiving a multi-wavelength optical signal from an input port;
b) separating said multi-wavelength optical signal into multiple spectral channels;
c) focusing said spectral channels onto a spatial array of corresponding beamdeflecting elements, whereby each beam-deflecting element receives one of said spectral channels; and
d) dynamically and continuously controlling said beam-deflecting elements; thereby directing in two dimensions to direct said spectral channels into a plurality
any selected ones of said output ports and to control the power of the spectral channels coupled into said selected output ports.
62. (Amended) The method of claim 61 further comprising the step of providing feedback control of said beam-deflecting elements, thereby maintaining to maintain a predetermining coupling of each spectral channel directed into one of said output ports.
63. (Original) The method of claim 62 further comprising the step of maintaining power levels of said spectral channels directed into said output ports at a predetermining value.
64. (Original) The method of claim 61 wherein each spectral channel is directed into a separate output port.
65. (Original) The method of claim 61 wherein a subset of said spectral channels is directed into one of said output ports, thereby providing one or more pass-through spectral channels.
66. (Original) The method of claim 65 further comprising the step of multiplexing said pass-through spectral channels with one or more add spectral channels, so as to provide an output optical signal.
67. (Original) The method of claim 61 wherein said beam-deflecting elements comprise an array of silicon micromachined mirrors.

## Remarks

Applicant thanks the Examiner for his helpful suggestions as to changes to the reissue declaration to overcome the rejection of the claims under 35 U.S.C. §251 because of a defective reissue oath or declaration. Enclosed is a Second Replacement Reissue Declaration that adopts the Examiner's suggestions. Accordingly, it is submitted that the enclosed Second Replacement Reissue Declaration is proper and overcomes the rejection under 35 U.S.C. §251.

Claim 68 which was rejected under 35 U.S.C. §251 as being broadening has been cancelled (omitted) in this Second Preliminary Amendment. Otherwise, the enclosed Amendment is identical to the Preliminary Amendment submitted upon filing of this reissue application.

In view of the foregoing, favorable reconsideration if this application and early action on the merits are respectfully requested.

Date: January 31, 2011
Respectfully Submitted,
/Barry N. Young/

Barry N. Young
Attorney for Assignee
Reg. No. 27,744

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| Electronic Acknowledgement Receipt |  |
| :---: | :---: |
| EFS ID: | 9348551 |
| Application Number: | 12815930 |
| International Application Number: |  |
| Confirmation Number: | 2344 |
| Title of Invention: | Reconfigurable Optical Add-Drop Multiplexers with Servo Control and Dynamic Spectral Power Management Capabilities |
| First Named Inventor/Applicant Name: | Jeffrey P. Wilde |
| Customer Number: | 48789 |
| Filer: | Barry N. Young |
| Filer Authorized By: |  |
| Attorney Docket Number: | C2393-1101RE2 |
| Receipt Date: | 31-JAN-2011 |
| Filing Date: | 15-JUN-2010 |
| Time Stamp: | 20:29:32 |
| Application Type: | Utility under 35 USC 111(a) |

## Payment information:

| Submitted with Payment |  | no |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| File Listing: |  |  |  |  |  |
| Document Number | Document Description | File Name | File Size(Bytes)/ Message Digest | $\begin{gathered} \text { Multi } \\ \text { Part /.zip } \end{gathered}$ | Pages (if appl.) |
| 1 | Reissue dec filed in accordance with MPEP 1414. | 2nd_Rpl_Declr.pdf | 3214143 | no | 3 |
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| Warnings: |  |  |  |  |  |
| Information: |  |  |  |  |  |



# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE 

Applicant: Jeffrey P. Wilde, et. al
Serial No. $12 / 815,930$
Group Art Unit: 2883
Filed: 06/15/2010 Examiner: Healy, Brian
Title: Reconfigurable Optical Add-Drop Multiplexers With Servo Control and Dynamic Spectral Power Management Capability
(Reissue of Patent No. RE39,397, issued November 14, 2006)

## SECOND REPLACEMENT REISSUE APPLICATION DECLARATION BY ASSIGNEE

I, Larry Schwerin, hereby declare that:
The residence, mailing address and citizenship of the Inventors of the aboveidentified patent for which reissue is sought are as stated below.

I am authorized to act on behalf of the following Assignee: CAPELLA PHOTONICS, INC., A DELAWARE CORPORATION, and my title with said assignee is President and Chief Executive Officer. The entire title and interest in said Patent is vested in said Assignee, and I consent on behalf of said Assignee to the filing of this Reissue Application for the above Patent.

| Inventor's Full Name: | Jeffrey P. Wilde |
| :--- | :--- |
| Residence/Mailing <br> Address: | 2310 Rockwood Ranch Road <br> Morgan Hill, CA 95037 |
| Citizenship: | US |


| Inventor's Full Name: | Joseph E. Davis |
| :--- | :--- |
| Residence/Mailing <br> Address: | 18765 St. Marks Avenue <br> Morgan Hill, CA 95037 |
| Citizenship: | US |

I believe said above named Inventors to be the original and first inventors of the subject matter which is described and claimed in said above identified Patent for which a reissue patent is sought, the specification of which:
was filed as Application No. 12/815,930 on 06/15/2010;
and was amended by Preliminary Amendments filed on 06/15/2010 and herewith.

I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. §1.56.

I verily believe the original Patent to be wholly or partially inoperative or invalid for the reason that the patentee claimed more than he had a right to claim in the Patent.

At least one error upon which reissue is based is described as follows: Claim 1 is deemed to be too broad and invalid in view of U.S. Patent No. 6,498,872 to Bouevitch and further in view of one or more of U.S. Patent No. $6,567,574$ to Ma, U.S. Patent No. 6,256,430 to Jin, or U.S. Patent No. 6,631,222 to Wagener by failing to include limitations regarding the pivotability of channel micromirrors and control of power of received spectral channels coupled to output ports, as indicated by the amendments to Claim 1 in the Preliminary Amendments referred to above.

All errors corrected in this Reissue Application arose without deceptive intent on the part of the Applicant.

I hereby appoint the practitioners associated with Customer No. 48489 as our attorneys or agents to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please direct all communications to:
Barry N. Young
Reg. No. 27,744
200 Page Mill Road, Suite 102
Palo Alto, CA 94306
(650) 326-2701

Byound@young filaw.com
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this Declaration is directed.

Dated: $\qquad$ , 2011


This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14 . This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| :---: | :---: | :---: | :---: | :---: |
| $12 / 815,930$ | Jeffrey P. Wilde |  |  |  |
| 48789 | $06 / 15 / 2010$ | C2393-1101RE2 |  |  |
| LAW OFFICES OF BARRY N. YOUNG |  | 2344 |  |  |
| 200 PAGE MILL ROAD |  | EXAMINER |  |  |
| SUITE 102 |  |  |  |  |
| PALO ALTO, CA 94306 | HEALY, BRIAN |  |  |  |

Please find below and/or attached an Office communication concerning this application or proceeding.
The time period for reply, if any, is set in the attached communication.
Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):
BYOUNG@YOUNG-IPLAW.COM
BNYOUNG7@GMAIL.COM

| Office Action Summary | Application No. <br> 12/815,930 | Applicant(s) <br> WILDE ET AL. |  |
| :---: | :---: | :---: | :---: |
|  | Examiner BRIAN M. HEALY | Art Unit $2883$ |  |

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).


## Status

1) $\boxtimes$ Responsive to communication(s) filed on 03 December 2010.

2a)This action is FINAL. 2 2b) This action is non-final.
3) $\square$ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4) $\boxtimes$ Claim(s) $1-68$ is/are pending in the application.

4a) Of the above claim(s) $\qquad$ is/are withdrawn from consideration.
5) $\square$ Claim(s) $\qquad$ is/are allowed.
6) $\boxtimes$ Claim(s) $1-68$ is/are rejected.
7) $\square$ Claim(s) $\qquad$ is/are objected to.
8) $\square$Claim(s) $\qquad$ are subject to restriction and/or election requirement.

## Application Papers

9) $\square$ The specification is objected to by the Examiner.
10) $\boxtimes$ The drawing(s) filed on 15 June 2010 is/are: a) $\boxtimes$ accepted or b) $\square$ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119
12) $\square$ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) $\square$b)Some * c)None of:Certified copies of the priority documents have been received.
$2 . \square$ Certified copies of the priority documents have been received in Application No. $\qquad$ -.
3. $\square$ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


## Attachment(s)

Interview Summary (PTO-413) Paper No(s)/Mail Date. $\qquad$
3) $\square$ Information Disclosure Statement(s) (PTO/SB/08)
$\square$ Notice of Informal Patent Application Paper No(s)/Mail Date $\qquad$ 6) $\boxtimes$ Other: see attached office action.

## DETAILED ACTION

## Reissue Applications

1. Applicant is reminded of the continuing obligation under 37 CFR 1.178 (b), to timely apprise the Office of any prior or concurrent proceeding in which Patent No. RE39,397 and USP No. 6,625,346 is or was involved. These proceedings would include interferences, reissues, reexaminations, and litigation.

Applicant is further reminded of the continuing obligation under 37 CFR 1.56, to timely appraise the Office of any information which is material to patentability of the claims under consideration in this reissue application.

These obligations rest with each individual associated with the filing and prosecution of this application for reissue. See also MPEP §§ 1404, 1442.01 and 1442.04.
2. The reissue oath/declaration filed with this application is defective because it fails to identify at least one error which is relied upon to support the reissue application. See 37 CFR $1.175(\mathrm{a})(1)$ and MPEP § 1414.
3. The reissue declaration filed December 3, 2010, asserts that the patent was wholly or partially inoperative or invalid because the patentee claims more than he had a right to claim and identified the error that serves as basis for reissue being :
4. "Some of the claims are deemed to be too broad and invalid in view of U.S. Patent No. 6,498,872 to Bouevitch and further in view of one or more of U.S. Patent No. $6,567,574$ to Ma, U.S. Patent No. 6,256,430 to Jin or U.S. Patent No. 6,631,222 to

Wagener, as indicated by the amendments to the claims in the Preliminary Amendment referred to above and filed with this application."
5. The declaration, as filed, lacks specificity because it merely states, "Some of the claims" are deemed to be too broad, which is a statement which does not identify in the oath or declaration which (or at least one) of the claims are too broad and asks the reader to incorporate from the amendment to figure out what is being referred to ("as indicated by the amendments to the claims in the preliminary amendment").
6. In the remarks of $12 / 03 / 2010$, Applicant's main point concerning the previous office action is that rule 175 (37 CFR 1.175) does not require reference to specific claim language. On page 3 of Applicant's remarks it was stated, "It is respectively submitted that the requirement to specifically identify "any error" by reference to "the specific claim language" as stated in the rejection (the previous office action) goes beyond the requirements of the current version of rule 175."
7. The current text of 37 CFR 1.175(a)(1) reads as follows: "The applicant believes the original patent to be wholly or partly inoperative or invalid by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than the patentee had the right to claim in the patent, stating at least one error being relied upon as the basis for reissue."
8. The words "stating at least one error" were highlighted because this is the basis for Applicant's arguments regarding the need for specificity. The Examiner takes note of the fact that the word "state"(used as a verb) is defined by the current Merriam-Webster dictionary (current online edition) as "to express the particulars of especially in words."

Thus it can be seem that to "state at least one error" would include "the particulars of (or specificity of) at least one error." While a dictionary definition is somewhat anecdotal the need for specificity of at least one error has been expanded upon in MPEP 1414 ( c ) which states : "It is not sufficient for an oath/declaration to merely state "this application is being filed to correct errors in the patent which may be noted from the changes made in the disclosure." Rather, the oath/declaration must specifically identify an error. In addition, it is not sufficient to merely reproduce the claims with brackets and underlining and state that such will identify the error. See In re Constant, 827 F.2d 728,729, 3 USPQ 2d 1479 (Fed Cir.), cert. Denied, 484 U.S. 894 (1987). Any error in the claims must be identified by reference to the specific claim(s) and the specific claim language wherein lies the error."
9. In Applicant's remarks of $12 / 03 / 2010$, it was stated that Applicant's counsel, Mr. Barry Young, telephoned Mr. Robert Clarke and Mr. Pincus Laufer of the UPPTO Office of Legal Administration regarding Applicant's counsel's understanding that the changes to rule 175 in 1997 eliminated the need for specificity (as discussed above). Examiner Healy contacted Mr. Laufer in a communication on December 28,2010 and Mr. Laufer stated that it was a misunderstanding if Mr. Young came away from their conversation that rule 175 eliminated the need for specificity of at least one error in the oath or declaration.
10. Applicant should note that if all that were necessary to state that "some of the claims are too broad" then "stating at least one error being relied upon for reissue" would be excess verbiage. The MPEP (See MPEP 1414) has been updated over time
to clarify what constitutes an adequate statement of error, using examples based on the improper declarations the office has received.
11. The Examiner would like to suggest some language which would be acceptable in the oath or declaration. This is not a requirement but a suggestion designed to advance the prosecution of the present application.
12. "[Some of the claims are] Claim 1 is deemed to be too broad and invalid in view of U.S. Patent No. 6,498,872 to Bouevitch and further in view of one or more of U.S. Patent No. 6,567,574 to Ma, U.S. Patent No. 6,256,430 to Jin or U.S. Patent No. 6,631,222 to Wagener, by not including limitations regarding the pivotablity of channel micromirrors and control of power of received spectral channels, as indicated by the amendments to [the claims] Claim 1 in the Preliminary Amendment referred to above and filed with this application."
13. For further guidance regarding acceptable declaration language Applicant is referred to MPEP 1414 (II) ( c ).
14. Claim 68 is rejected under 35 U.S.C. 251 as being broadened in a reissue application filed outside the two year statutory period. Broadening claims made after two years from the patent issue date is prohibited by the reissue statute, 35 USC 251. Claim 68 appears to be broader than original patent claim 1. Even through claim 68 is narrower than original claim 1 in some respects, it is broader than claim 1 in that "beam reflecting elements" (recited in newly presented claim 68) is broader than "channel micro mirrors" (recited in original claim 1) because beam reflecting elements covers reflectors that includes but not limited to mirrors and micro mirrors. Claim 68 is also
broader than claim 1 because it does not require than the beam-deflecting elements be individually controllable since dynamically controllable is not limited to individually controllable. A claim is broader in scope than the original claims if it contains within its scope any conceivable product or process which would not have infringed the original patent. A claim is broadened if it is broader in any one respect even though it may be narrower in other respects.
15. Claims 1-68 are rejected as being based upon a defective reissue oath or declaration under 35 U.S.C. 251 as set forth above. See 37 CFR 1.175.

The nature of the defect(s) in the oath or declaration is set forth in the discussion above in this Office action (see above discussion).

Because the added rejection regarding improper claim broadening was not necessitated by Applicant's amendment, this office action has NOT been made final.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN M. HEALY whose telephone number is (571)272-2347. The examiner can normally be reached on M-F 6AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Robinson can be reached on (571)272-2319. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRIAN M. HEALY/<br>Primary Examiner Art Unit 2883

| Index of Claims *1281593 <br> 0* | $\begin{aligned} & \text { Application/Control No. } \\ & 12815930 \end{aligned}$ | Applicant(s)/Patent Under Reexamination <br> WILDE ET AL. |
| :---: | :---: | :---: |
|  | Examiner <br> BRIAN M HEALY | Art Unit 2883 |
|  |  |  |


| $\checkmark$ | Rejected | - | Cancelled | $N$ | Non-Elected | A | Appeal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $=$ | Allowed | $\div$ | Restricted | I | Interference | 0 | Objected |



| Index of Claims *1281593 <br> 0* | $\begin{aligned} & \text { Application/Control No. } \\ & 12815930 \end{aligned}$ | Applicant(s)/Patent Under Reexamination <br> WILDE ET AL. |
| :---: | :---: | :---: |
|  | Examiner <br> BRIAN M HEALY | Art Unit 2883 |
|  |  |  |


| $\checkmark$ | Rejected | - | Cancelled | $N$ | Non-Elected | A | Appeal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $=$ | Allowed | $\div$ | Restricted | I | Interference | 0 | Objected |



| Index of Claims$\begin{gathered} \text { *1281593 } \\ 0^{*} \end{gathered}$ | Application/Control No. $12815930$ | Applicant(s)/Patent Under Reexamination <br> WILDE ET AL. |
| :---: | :---: | :---: |
|  | Examiner BRIAN M HEALY | Art Unit <br> 2883 |
|  |  |  |


| $\checkmark$ | Rejected |
| :---: | :---: |
| $=$ | Allowed |




# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE 

Applicant: Jeffrey P. Wilde, et. al
Serial No.: 12/815,930 Group Art Unit: 2883
Filed: 06/15/2010 Examiner: Healy, Brian
Title: Reconfigurable Optical Add-Drop Multiplexers with Servo Control and Dynamic Spectral Power Management Capabilities
(Reissue of Patent No. RE 39,397; Issued November 14, 2006)

## RESPONSE

And
SUBMISSION OF REPLACEMENT REISSUE DECLARATION

## Mail Stop REISSUE

Commissioner for Patents
P.O. Box 1450

Alexandria, Virginia 22313-1450

Dear Sir:
In response to the Office Action of October 28, 2010, rejecting the claims under 35 U.S.C. §251 for a defective reissue oath/declaration, attached is a Replacement Reissue Application Declaration by Assignee to replace the originally filed Reissue Application Declaration By The Assignee (form PTO/SB/52).

## Remarks

For the reasons below, it is submitted that the enclosed Replacement Declaration corrects deficiencies in the originally submitted declaration, and complies fully with the requirements of 37 C.F.R. §1.175. Accordingly, favorable reconsideration of this application is respectfully requested.

The Replacement Declaration of Assignee submitted herewith states, in relevant part:
"I verily believe the original Patent to be wholly or partially inoperative or invalid for the reason that the patentee claimed more than he had a right to claim in the Patent.

At least one error upon which reissue is based is described as follows: Some of the claims are deemed to be too broad and invalid in view of U.S. Patent No. 6,498,872 to Bouevitch and further in view of one or more of U.S. Patent No. $6,567,574$ to Ma, U.S. Patent No. $6,256,430$ to Jin, or U.S. Patent No. 6,631,222 to Wagener, as indicated by the amendments to the claims in the Preliminary Amendment referred to above and filed with this application.

All errors corrected in this Reissue Application arose without deceptive intent on the part of the Applicant."

The current version of 37 C.F.R. $\S 1.175$ ("Rule 175"), which was effective December 1, 1997, provides in §1.175(a) (1) that the reissue oath or declaration must state:
"The applicant believes the original patent to be wholly or partially inoperative or invalid by reason of . . . the patentee claiming more of less than the patentee had a right to claim in the patent, stating at least one error being relied upon as the basis for reissue". (see attached copy of Rule 175 reproduced from the M.P.E.P.)

In his rejection based upon a defective oath/declaration, the Examiner stated in the Office Action that the original oath/declaration ". . . fails to clearly and specifically identify in the original claim language wherein lies the error" (emphasis added) (citing the M.P.E.P. §1414 and 37 C.F.R. §1.175), and stated that "[A]ny error in the claims must be identified by reference to the specific claim(s) and the specific language wherein lies the error" (emphasis in original).

It is respectfully submitted that the requirement to specifically identify "any error" by reference to "the specific claim language", as stated in the rejection, goes beyond the requirements of the current version of Rule 175.

The current version of 37 C.F.R. §1.175 (effective December 1, 1997) changed former subsection (a) (1) of the Rule to its present form as quoted above. Additionally, it eliminated entirely former subsections (a) (2), (a) (3) and (a) (5). [Subsection (a) (4) which permitted so-called "no defect" reissues was eliminated in 1982.] Eliminated subsection (a) (2) had required the applicant to particularly specify defects in the specification or drawing. Eliminated subsection (a)(3) applied when the applicant claimed an error by reason of claiming more or less than he had a right to claim, and required the applicant to distinctly specify the excess or insufficiency in the claims. Finally, eliminated subsection (a) (5) required the applicant to particularly specify the errors relied upon and how they arose. All of the previous requirements of these subsections for specific information regarding the nature and origin of each
error being corrected have been eliminated and replaced by the present version of §1.175(a)(1) quoted above.

All that is required by Rule 175(a) (1) is that the applicant state at least one error being relied upon for reissue. The Rule does not require that more that one error to be identified in the oath or declaration, and does not require reference in the oath or declaration to the specific claim language where the error lies, as stated.

It is respectfully submitted that the statement in the enclosed Replacement Declaration: "Some of the claims are deemed to be too broad and invalid in view of U.S. Patent No. $6,498,872$ to Bouevitch and further in view of one or more of U.S. Patent No. 6,567,574 to Ma, U.S. Patent No. 6,256,430 to Jin, or U.S. Patent No. $6,631,222$ to Wagener, as indicated by the amendments to the claims in the Preliminary Amendment referred to above and filed with this application" is sufficient to satisfy the requirements of $\S 1.175(\mathrm{a})(1)$, and that it is not necessary in the reissue declaration to refer to specific claims or to specific claim language.

The undersigned Counsel for Applicant confirmed in a telephone conference on December 1, 2010 with Mr. Robert Clarke (Ext. 7735) and Mr. Pincus Laufer (Ext. 7726) of the USPTO Office of Legal Administration that Counsel's understanding of the changes to the Rule in 1997, as described above, are correct, and that it is not necessary to identify in the reissue declaration the specific claim language where an error lies. It is sufficient to refer to a claim amendment.

Accordingly, it is respectfully submitted that the attached Replacement Reissue Application Declaration by Assignee satisfies the requirements of 37 C.F.R. §1.175 and overcomes the rejection under 35 U.S.C. 251.

In view of the foregoing, favorable reconsideration if this application and early action on the merits are respectfully requested.

Respectfully Submitted,
/Barry N. Young/

Barry N. Young
Attorney for Assignee
Reg. No. 27,744

Customer No. 48789
Law Offices of Barry N. Young 200 Page Mill Road, Suite 102 Palo Alto, CA 94306-2061
Phone: (650) 326-2701
Fax: (650) 326-2799
byoung@young-iplaw.com

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Jeffrey P. Wilde, et. al
Serial No. 12/815,930
Group Art Unit: 2883
Filed: 06/15/2010
Examiner: Healy, Brian
Title: Reconfigurable Optical Add-Drop Multiplexers With Servo Control and Dynamic Spectral Power Management Capability
(Reissue of Patent No. RE39,397, issued November 14, 2006)

## REPL.ACEMENT REISSUE APPLICATION DECLARATION BY ASSIGNEE

1, Larry Schwerin, hereby declare that:
The residence, maling address and citizenship of the Inventors of the aboveidentified patent for which reissue is sought are as stated below.
$i$ am authorized to act on behalf of the following Assignee: CAPELLA PHOTONICS, INC, A DELAWARE CORPORATION, and my title with said assignee is President and Chief Executive Officer. The entire title and interest in said Patent is vested in said Assignee, and I consent on behalf of said Assignee to the filing of this Reissue Application for the above Patent.

| Inventor's Full Name: | Jeffrey P. Wilde |
| :--- | :--- |
| Residence/Mailing <br> Address: | 2310 Rockwood Ranch Road <br> Morgan Hill, CA 95037 |
| Citizenship: | US |


| Inventor's Full Name: | Joseph E. Davis |
| :--- | :--- |
| Residence/Mailing <br> Address: | 18765 St. Marks Avenue <br> Morgan Hill, CA 95037 |
| Citizenship: | US |

I believe said above named Inventors to be the original and first inventors of the subject matter which is described and claimed in said above identified Patent for which a reissue patent is sought, the specification of which:
was fited as Application No. 12/815,930 on 06/15/2010;
and was amended by Preliminary Amendment filed on 06/15/2010.
I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. §1.56.

I verily believe the original Patent to be wholly or partially inoperative or invalid for the reason that the patentee claimed more than he had a right fo claim in the Patent.

At least one error upon which reissue is based is described as follows: Some of the claims are deemed to be too broad and invalid in view of U.S. Patent No. $6,498,872$ to Bouevitch and further in view of one or more of U.S. Patent No. 6,567,574 to Ma, U.S. Patent No. $6,256,430$ to Jin, or U.S. Patent No. 6,631,222 to Wagener, as indicated by the amendments to the claims in the Preliminary Amendment referred to above and filed with this application.

All errors corrected in this Reissue Application arose without deceptive intent on the part of the Applicant.

I hereby appoint the practitioners associated with Customer No. 48489 as our attomeys or agents to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please direct all communications to:

> Barry N. Young

Reg. No. 27,744
200 Page Mill Road, Suite 102
Palo Alto, CA 94306
(650) 326-2701

Byoung@young-lplaw.com
I hereby deciare that all statements made herein of my own knowiedge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that wilful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001, and that such wilful false statements may jeopardize the validity of the
application, any patent issuing thereon, or any patent to which this Declaration is directed

Dated: Bec 2 . . 2010
(c) Slatus of claims and sapport for claim changes. Wheneser there is an amendment to the ckans pursuan 16 parangaph (b) of this section, there nust also be sumplied. on pages separate from the pages containing the changes, the status (i.e, pending or canceled), as of the date of the amendment, of all patent claims and of all added claims, and an explanation of the support in the disclosure of the patent for the changes made to the clams.
(d) Changes shown by mawhingx. Any changes relative ti) the patent being reissued which are made to the specification, ineluding the clams, upon filing, or by an amendment saper is the reissue application. must include the following markings:
(1) The matter to be omitted by reissue must be enclosed in brackets: and
(2) The matter to be added by reissue must be underlined. except for amendments submitted on compact dises ( $8 \$ 1.96$ and 1.823 (c)), Matter added by reissac ore compact dises mast be preecded with "eU"*" and end with " U U." to property identify the material being added.
(e) Numbering of ponent clayms preserwed. Patent clams maty not be renumbered. The numbering of any claim added in the reissue application must follow the number of the highesi numbered patent claim.
(1) Amenabnent of discloswe may be required. The disclosure mus! be amended, when required by the Office, to correct inaccuaties of description and delimition. and to secure substantial correspondence between the claims. the romainder of the specification and the drawings.
(g) Amendments made relative to the patent All amendments musi be made relative to the patent specification, including the clains, and drassings, which are in effect as of the date of liling of the reissue application.
[Revised, 65 FR 54004 , Sept. 8. 2000. effective Nor. 7. 2000; para. (b) (3) revised, 68 1R 3863\}, June 30, 2003. ellective July 30, 2003: para. (b) introductory text revised. 69FR 56481 . Sept.21, 2004, cffictive Oct. 21. 2004]

## \$ 1.174 [Reserved]

[2417R 10332, ఏex, 22. \{45y; para. \{a\}, 48 \{ \} 271$\}$. fan. 20. 1983, offective Feb. 27. 1983: nemunes and reserved. 05 ER 5460 A . Sept. 8. 2000. effective Now. 7. 200191

## § 1.175 Reissue oath or declaration.

(a) The reisstse oatz or secclatation in addition to complying with the repairements of 81.63 , must also state that:
(1) The applicant believes the original patent to be wholly or partly inoperative or invalid by reason of a defective specification or drawing, or by reasos of the patentee claiming more or less than the patensee bad the right to claim in the patent, statheg at leavt one error being relied upon as the basis for reissue; and
(2) Afl errors being corrected in the reissue application up to the time of siling of the oath or declaration urder this paragraph arose without ary deceptive intention on the pan of the applicam.
(b)(1) For any error corrected, which is not wovered by the oath or declaration submitted under paragraphs (a) of this section, applicant muse submit a supplemental oath or declaration siating that every such error arose without any deceptive intentioss on the part of the applicant. Any sapplemental oath or declaration required by this paragraph must be submitted before allowance and may be submitted:
(i) With any anendment prior to alsowance: or
(ii) In order to osercome a rejection tander 35 U.S.C. 25 made by the examiner where it is indicated that the submission of a supplementak oath or declaration as required by this paraganit will overcome the rejection.
(2) For any error sought to be corrected atter ablowance, a supplemental oath of declaration must accompany the requested correction stating that the error(s) to be corrected awose without any deceptive intention on the pare of the applicant.
(c) Having once stated an crror uణon which the reissate is based, as set forth in paragraph fax (\}) unless all errors previously stated in the oath or dectaration are no longer being corrected. a subsequent oatls or declaration mder paragraph (b) of this section need not spocifcally iúenkify any other error or emons being corrected.
(d) The oath or declaration required by paragraph (a) of this section may be summitted under the provisions of $\$ 1.53(1)$.
(e) The filing of any continuing reissue applicafion which dees not replace its garent reissue application muss include an oalh or declaration which. pursuant to paragraph (a)(1) of this section. idensilies
at least one error in the original patent which has not. been corrected by the parent reissue application or als carlier reissue application. All other requirements refating to oaths or declarations must also be met.

124 FR 10352. Dec. 22, 1959: 29 FR 18503, Dice. 29. 1964; 34 RR 18857. Nex. 26. 1969: para. (3). 47 TR 21752 , May 19. 1982. effective buly 1.1982, para. (i8). 48:R 2713, Jan. 20, 198; cffeclive led. 27. 198; para, (aif7, 57 FR 2021. Kan. 17. 1942. etfedive War 66. 1992: revised. 62 fR 53131 . 8 ct . 10, 1907, sffective Dec. 1. 1997; parsi. (e) added, $69 \mathrm{PR}, 5648 \mathrm{l}$, Sept. 21, 2004, ellietive Oet. 21. 20041

## § 1.176 Examination of reissuc.

(a) A reissue application will be examined in the same mamer as a non-reissuk, non-provisional application, and will be subject to all the requirements of the rules related to non-reissue applications. Applications for resssue will be acted on by the examiner in advance of orber applications.
(b) Kestriction between subject matter of the original patent claims and previously umelamed subject matter may be required (restriction involving only. subject matter of the original patent claims wisl not be required). If restriction is required, the subject matter of the original patent clams will be held to be constouctively elected unless a disclames of all the patent clams is foled in the reissue application, whicls dischamer cambor be withdrawn by applicant.

132 FR 5595, Jan. 28, 1977: revised, 65 138 54ho4. Sept. 8, 2000, eftective Nov. 7, 2000|

## § 3.177 Issuance of multiple reissue patents.

(a) The Office may reissue a patent as multiple reissue patents. If applicant fles more than one application for the reisste of a single patent. each such application most contain or be amended so contain in the first sentence of the specitication in notice sfating, that more than one reisstic application has been Tled ind identifying cach of the reisson applications by relationship, appheation number and filing bate. The Office may correct by certificate of correction undes \& 1.322 any reissue patent resuiting from an application fo which this paragraph applies that does not confans the required notiec.
(b) If applicant files more than one application for the reissue of a single patent, cacls claime of the
patent being reissued must be presented in each of the reissue applactions as an amended. unamended, or canceled (shown in brackets) clam, with each such claim bearing the same number as in the paten being reissued. The same clam of the paten being reissted may non be presented in its orgginal umanended form for examination in mose than one of soch multiple seissue applications. The numbering of any added chams in any of the mulfipie reissue applications mast follaw the number of the highest numbered orixinal patert claim.
(c) If any one of the several reissibe applications by itself lails to correct an error in the original patent as required by 35 \&SC. 251 but is otherwise in condition for allowance, the Office may suspend action in the allowable application until all issues are resolved as to at \}east one of the remaining reissue applications. The Oflice may akso merge two of more of the mutiple reissue applications inte a single reissue application. No reissue application condaining only aramended parent claine ard ron correcting an eror in the orginal patenf will be passed to isste by itself.

147 ER 4278 Sept 17. 1982. effectise sate (9) 1. 1982: revised. 54 1R 6893 . Feh, 15 , 1989 , 54 FR 9432. March 7, 1989, eliective Apr. 17. 1989: revised. (6) If 20195. Apr. 25, 1985. ellewive hane 8. 19955: revined. 65 FR 54604, Seqt. 8,2000 , eftetive Nos. 7,20001

## § 1.178 Original patent; contimaing duty of applicant.

(a) The application for reissue of a patent shall constitate an offer to surrender that patent, and the surrender shalk take effect upon reissue of the patem. Until a reissue application is zramed. the original patent shall remsion in effect.
(b) In any reissue application betore the Office. the applicant must call to the atention of the Ottice any prior or concument proceedings in which the patent (for which resssue is requestod) is or was involved, such as interferences, reissues, seexannisitions, or litigations and the results of such proceedings (sce also \$ $1.173($ a $)(1)$ ).

124 FR 10332. Dee. 22, 1959:34 FR 38857 . Now. 26. 1969: revised. 65 FR 54604. Scpt. 8, 2000, wftective Nov. 7. 2000 : parat (a) revised. 69 \}R 56481 , Sepp, 21, 2004 . effective Sept. 21, 2904 4

| Electronic Acknowledgement Receipt |  |
| :---: | :--- |
| EFS ID: | 8967864 |
| Application Number: | 12815930 |
| International Application Number: |  |
| Confirmation Number: | 2344 |
| Title of Invention: |  |
|  | Reconfigurable Optical Add-Drop Multiplexers with Servo Control and <br> Dynamic Spectral Power Management Capabilities |
| Filer Authorized By: |  |
| Application Type: |  |
| Filing Date: | Jeffrey P. Wilde |
| First Named Inventor/Applicant Name: | Comer Number: |

## Payment information:

| Submitted with Payment |  | no |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| File Listing: |  |  |  |  |  |
| Document Number | Document Description | File Name | File Size(Bytes)/ Message Digest | Multi Part /.zip | Pages (if appl.) |
| 1 | Amendment/Req. Reconsideration-After Non-Final Reject | Resp_12-3-10.pdf |  | no | 5 |
| Warnings: |  |  |  |  |  |
| Information: |  |  |  |  |  |


| 2 | Reissue dec filed in accordance with MPEP 1414. | Rpl_RE_Declr_Assignee.pdf | 445665 | no | 3 |
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|  |  |  | 36 |  |  |
| Warnings: |  |  |  |  |  |
| Information: |  |  |  |  |  |
|  | Miscellaneous Incoming Letter | Rule_1-175.pdf | 476513 | no | 2 |
|  |  |  | b8e5571bobe8ce8de7914b2a8666d484de |  |  |
| Warnings: |  |  |  |  |  |
| Information: |  |  |  |  |  |
| Total Files Size (in bytes) |  |  | 953506 |  |  |
| This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. |  |  |  |  |  |
| New Applications Under 35 U.S.C. 111 |  |  |  |  |  |
| If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. |  |  |  |  |  |
| National Stage of an International Application under 35 U.S.C. 371 |  |  |  |  |  |
| If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. |  |  |  |  |  |
| New International Application Filed with the USPTO as a Receiving Office |  |  |  |  |  |
| If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application. |  |  |  |  |  |

## United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS
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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| :---: | :---: | :---: | :---: | :---: |
| $12 / 815,930$ | Jeffrey P. Wilde |  |  |  |
| 48789 | $06 / 15 / 2010$ | C2393-1101RE2 |  |  |
| LAW OFFICES OF BARRY N. YOUNG |  | 2344 |  |  |
| 200 PAGE MILL ROAD |  | EXAMINER |  |  |
| SUITE 102 |  |  |  |  |
| PALO ALTO, CA 94306 | HEALY, BRIAN |  |  |  |

Please find below and/or attached an Office communication concerning this application or proceeding.
The time period for reply, if any, is set in the attached communication.
Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):
BYOUNG@YOUNG-IPLAW.COM
BNYOUNG7@GMAIL.COM

| Office Action Summary | Application No. <br> 12/815,930 | Applicant(s) <br> WILDE ET AL. |  |
| :---: | :---: | :---: | :---: |
|  | Examiner BRIAN M. HEALY | Art Unit 2883 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any eamed patent term adjustment. See 37 CFR 1.704(b).

## Status

1)Responsive to communication(s) filed on $\qquad$ _.
2a) This action is FINAL. 2b) This action is non-final.Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4) Claim(s) $1-68$ is/are pending in the application.

4a) Of the above claim(s) $\qquad$ is/are withdrawn from consideration.
5) $\square$ Claim(s) $\qquad$ is/are allowed.
6) $\boxtimes$ Claim(s) $1-68$ is/are rejected.
7)Claim(s) $\qquad$ is/are objected to.
8) Claim(s) $\qquad$ are subject to restriction and/or election requirement.

## Application Papers

9) $\square$ The specification is objected to by the Examiner.
10) $\boxtimes$ The drawing(s) filed on $\underline{6 / 15 / 2010}$ is/are: a) $\boxtimes$ accepted or b) $\square$ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85 (a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119
12) $\square$ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
$\qquad$Some * c)None of:Certified copies of the priority documents have been received.
$2 . \square$ Certified copies of the priority documents have been received in Application No. $\qquad$ -.
 Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


## Attachment(s)

1) $\boxtimes$ Notice of References Cited (PTO-892)
2) $\square$ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) $\boxtimes$ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date $\underline{20100615 .}$Interview Summary (PTO-413) Paper No(s)/Mail Date.
4) $\square$ Notice of Informal Patent Application
5) 

$\qquad$

## DETAILED ACTION

## Reissue Applications

1. The reissue oath/declaration filed with this application is defective (see 37 CFR 1.175 and MPEP § 1414) because of the following:
2. 3) The reissue oath/declaration states that the original patent to be wholly or partly inoperative or invalid by reasons of the patentee claiming ,ore or less that he had a right to claim in the patent The mpep states in 1414 and 37 CFR 1.175; " A statement that the original patent is "wholly or partly inoperative or invalid" by reason of patentee claiming more or less than the patentee had a right to claim in the patent is improper, a claim cannot claim "more or less" at the same time.
1. In the oath/declaration, assignee states; Claims 1,44 and 61 may have claimed more than there was a right to claim in view of the cited prior art. This language fails to clearly and specifically identify in the original claim language wherein lies the error. The mpep states in 1414 and 37 CFR 1.175; "Any error in the claims must be identified by reference to the specific claim(s) and the specific claim language wherein lies the error."
2. In the oath/declaration, assignee states; "Applicants failed to include an apparatus claim (per claim 68) that corresponds substantially to method claim 61." Merely the fact that Applicant "failed to claim" a certain claim is not an error onto itself which would render the original claim language "partially or wholly" imperative or invalid. A statement of failure to include a claim directed to a certain limitation and then presenting a newly added claim would not be considered a sufficient "error" statement

Application/Control Number: 12/815,930
Art Unit: 2883
because Applicant had not specifically pointed out what the original claim(s) lacked that the added claim has or vicevesa (see mpep 1414)
5. Claims 1-68 are rejected as being based upon a defective reissue oath/declaration under 35 U.S.C. 251 as set forth above. See 37 CFR 1.175.

The nature of the defect(s) in the reissue or declaration is set forth in the discussion above in this Office action.

A copy of ptol-1449 will be included in this office action.
The following reference is also cited by the Examiner as being pertinent and/or related art: Wilde et. al. US RE39,397E (Note entire reference).

If the rejection based upon 35 U.S.C. 251 is overcome, a subsequent office action will treat claims 1-68 on their merits.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN M. HEALY whose telephone number is (571)272-2347. The examiner can normally be reached on M-F 6AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Robinson can be reached on (571)272-2319. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.
/BRIAN M. HEALY/
Primary Examiner Art Unit 2883

| Notice of References Cited | Application/Control No. <br> $12 / 815,930$ |  | Applicant(s)/Patent Under <br> Reexamination <br> WILDE ET AL. |
| :--- | :--- | :--- | :--- |
|  | Examiner <br> BRIAN M. HEALY | Art Unit <br> 2883 | Page 1 of 1 |


| $*$ |  | Document Number <br> Country Code-Number-Kind Code | Date <br> MM-YYYY | Name | Classification |
| :---: | :---: | :--- | :--- | :--- | :---: |
| $*$ | A | US-RE39,397 E | $11-2006$ | Wilde et al. | $385 / 24$ |
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FOREIGN PATENT DOCUMENTS

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NON-PATENT DOCUMENTS

| $*$ |  | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) |
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[^3]U.S. Patent and Trademark Office

PTO-892 (Rev. 01-2001)

Doc code IDS

| INFORMATION DISCLOSURE STATEMENT BY APPLICANT <br> (Not for submission under 37 CFR 1.99) | Application Number | Filed Herewith |
| :---: | :---: | :---: |
|  | Filing Date | Filed Hexewith |
|  | First Named Inventor J | Jeffrey P. Wilde, et. al |
|  | Ant Unit Unknown $^{\text {an }}$ |  |
|  | Examiner Name | Unknown |
|  | Attorney Docket Number | C2393-11015E2 |

Class/Subclass

| U.S.PATENTS |  |  |  |  |  |  |
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| Examiner inital ${ }^{\circ}$ | Cite No | Patent Number | Kind Code | Issue Date | Name of Patentee or Applicant of cited Document | Pages Cohmms hines where Relevant Passages or Reievan: Figures Appear |
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| /B.H./ | 4 | 6631222 | B1 | 2003-1007 | Wagener et at | all $385 / 16$ |
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| /B.H./ | 6 | 6256430 | B1 | 2001-07.03 | $\sin$ eli ai | $385 / 18$ |

[^4]| INFORMATION DISCLOSURE STATEMENT BY APPLICANT <br> ( Not for submission under 37 CFR 1.99) | Application Number | Filed Herewith |
| :---: | :---: | :---: |
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|  | First Namedi Inventor I | Jeffrey P. Wilde, et. al |
|  | Ast Unit | Unknown |
|  | Examiner Name | Urikrown |
|  | Atromey Docket Number | C2393-1101RE2 |

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| /B.H./ | 9 | 6028685 |  | 2000-01.24 | Mishaiicek et. at | a) $359 / 224$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 10 | 5414540 |  | 1995.05-09 | Paick et at | all $359 / 39$ |
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|  | 12 | 5745271 |  | 1998-04-28 | Ford et al | ail $359 / 130$ |
| /B.H./ | 13 | 5835458 | A | 1998-11-01 | Biscriel et al | $369 / 44.12$ |
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| /B.H./ | 结 | 5974207 | A | 19959008 | Aksyuk el. ai | $385 / 24$ |
|  | 16 | 6204946 | B1 | 2001-03.01 | Aksyux et. al | anil $359 / 131$ |
| /B.H./ | 17 | 5205269 | B: | 2001-03-01 | Moiton | al $385 / 24$ |
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| B.H. | 19 | 6253135 | B1 | 2001-07.01 | Wade | all |



| INFORMATION DISCLOSURE STATEMENT BY APPLICANT <br> (Not for submission under 37 CFR 1.99) | Application Number | Filed Hexewith |
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|  | filing Oate | Fined Herewith |
|  | First Named Inventor 3 | Jeffrey P. Wilde, et. al |
|  | Ant Unit | Unknown |
|  | Examiner Name | Unknown |
|  | Attorney Dacket Number | C2393-11018RE2 |


| Examiner initia! ${ }^{*}$ | Cite <br> No | Foreign Document Numben | Country Code ${ }^{2}$ I | Kind Code ${ }^{4}$ | Publication <br> Date | Name of Patentee or Applicant of cited Document | Pages Columns Lines where Relevant Passages or Refevant Figures Appear | T\% |
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| NON-PATENT LITERATURE DOCUMENTS |  |  |  |  |  |  |  |  |
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| EXAMINER SIGNATURE |  |  |  |  |  |  |  |  |
| Examiner Signature |  | Brian Healy/ |  |  |  | Date Considered | 10/22/2010 |  |

[^5]| Search Notes | Application/Control No. $12815930$ | Applicant(s)/Patent Under Reexamination <br> WILDE ET AL. |
| :---: | :---: | :---: |
|  | Examiner <br> BRIAN M HEALY | Art Unit <br> 2883 |


| SEARCHED |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Class | Subclass | Date | Examiner |  |
| 385 | $24,11,37,34$ |  | $10 / 22 / 2010$ | $/ \mathrm{BH} /$ |


| SEARCH NOTES |  |  |
| :--- | :---: | :---: |
| Search Notes | Date | Examiner |
| SEARCHED"EAST"(prior art)(SEARCH TERMS, CLASS/SUBCLASSES <br> AND DATABASES USED ARE LISTED ON printout) | $10 / 22 / 2010$ | /BH/ |

## INTERFERENCE SEARCH

| Class | Subclass | Date | Examiner |
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| Index of Claims | $\begin{aligned} & \text { Application/Control No. } \\ & 12815930 \end{aligned}$ | Applicant(s)/Patent Under Reexamination <br> WILDE ET AL. |
| :---: | :---: | :---: |
|  | Examiner <br> BRIAN M HEALY | Art Unit <br> 2883 |


| $\checkmark$ | Rejected |
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| $=$ | Allowed |



| N | Non-Elected |
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| I | Interference |


| A | Appeal |
| :---: | :---: |
| O | Objected |


| $\square$ Claims renumbered in the same order as presented by applicant |  |  |  |  |  |  | $\square$ | CPA | $\square$ | т.D. | $\square$ | R.1.47 |
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| CLAIM |  | DATE |  |  |  |  |  |  |  |  |  |  |
| Final | Original | 10/22/2010 |  |  |  |  |  |  |  |  |  |  |
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|  | 36 | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |


| Index of Claims | Application/Control No. $12815930$ | Applicant(s)/Patent Under Reexamination <br> WILDE ET AL. |
| :---: | :---: | :---: |
|  | Examiner <br> BRIAN M HEALY | Art Unit <br> 2883 |


| $\checkmark$ | Rejected |
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| $\div$ | Restricted |


| N | Non-Elected |
| :--- | :--- |
| I | Interference |


| A | Appeal |
| :---: | :---: |
| O | Objected |


| $\square$ Claims renumbered in the same order as presented by applicant |  |  |  |  |  |  | - | CPA | $\square$ | T.D | $\square$ | R.1.47 |
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| CLAIM |  | DATE |  |  |  |  |  |  |  |  |  |  |
| Final | Original | 10/22/2010 |  |  |  |  |  |  |  |  |  |  |
|  | 37 | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |
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|  | 68 | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |

BIB DATA SHEET
CONFIRMATION NO. 2344

| SERIAL NUMBER 12/815,930 | $\begin{gathered} \text { FILING or 371(c) } \\ \text { DATE } \\ 06 / 15 / 2010 \\ \text { RULE } \end{gathered}$ |  | CLASS <br> 385 | GROUP ART UNIT 2883 |  | ATTORNEY DOCKET NO. C2393-1101RE2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| APPLICANTS Jeffrey P. Wilde, Morgan Hill, CA; Joseph E. Davis, Morgan Hill, CA; |  |  |  |  |  |  |  |
| ** CONTINUING DATA $\square$ <br> This application is a REI of $11 / 027,586$ 12/31/2004 PAT R,E39,397 which is a REI of 09/938,426 08/23/2001 PAT 6,625,346 which claims benefit of 60/277,217 03/19/2001 |  |  |  |  |  |  |  |
| ** FOREIGN APPLICATIONS ************************* |  |  |  |  |  |  |  |
| ** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **$07 / 02 / 2010$ |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { Foreign Priority claimed } \\ & 35 \text { UsC 119(a-d) conditions met yes }{ }^{\text {Y }} \text { Nos } \\ & \text { Verified and } \end{aligned}$ |  | -. Met after $\begin{aligned} & \text { Alowance }\end{aligned}$ | STATE OR COUNTRY | SHEETS DRAWINGS | TOTAL |  | INDEPENDENT CLAIMS |
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## ADDRESS

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Reconfigurable Optical Add-Drop Multiplexers with Servo Control and Dynamic Spectral Power Management
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| :---: | :---: | :---: |
|  |  | 1.16 Fees (Filing) |
|  |  | 1.17 Fees (Processing Ext. of time) |
|  |  | 1.18 Fees (Issue) |
|  |  | $\square$ Other |
|  |  | $\square$ Credit |

EAST Search History

EAST Search History (Prior Art)

| Ref \# | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
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| L1 | 2 | "7183633".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 34 \end{aligned}$ |
| L2 | 2 | "6989921".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 34 \end{aligned}$ |
| L3 | 2 | "6810169".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 35 \end{aligned}$ |
| L4 | 2 | "6631222".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 36 \end{aligned}$ |
| L5 | 3 | " 6600851 ".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 36 \end{aligned}$ |
| L6 | 6 | "656574".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 37 \end{aligned}$ |
| L7 | 2 | "6567574".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 37 \end{aligned}$ |


| L8 | 2 | "6496872".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 38 \end{aligned}$ |
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| L9 | 2 | "6256430".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 38 \end{aligned}$ |
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| L11 | 2 | "5414540".pn. | USPGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 41 \end{aligned}$ |
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| L15 | 2 | "6253135".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 43 \end{aligned}$ |


| L16 | 2 | "6263135".pn. | US-PGPUB; USPAT; <br> USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 43 \end{aligned}$ |
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| L23 | 2 | "6307657".pn. | US-PGPUB; USPAT; <br> USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 48 \end{aligned}$ |


| L24 | 2 | "6418250".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 48 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L25 | 2 | "6625346".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 49 \end{aligned}$ |
| L26 | 2 | "6634810".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 49 \end{aligned}$ |
| L27 | 2 | "6898348".pn. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 50 \end{aligned}$ |
| L28 | 2 | "20020131691" | US PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 50 \end{aligned}$ |
| L29 | 3 | "20030043471" | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 51 \end{aligned}$ |
| L30 | 0 | (385/24,11,37,34.ccls.) and (collimator\$ near (multi-wavelength or multiwavelength)) and (wavelength near separator) and micromirror\$ | US PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 54 \end{aligned}$ |
| L31 | 0 | $\begin{aligned} & \text { (385/24,11,37,34.ccls.) } \\ & \text { and (collimator\$ near } \\ & \text { (multi-wavelength or } \\ & \text { multiwavelength)) and } \\ & \text { (wavelength near } \\ & \text { separator) and } \\ & \text { (micromirror\$ or micro- } \\ & \text { mirror) } \end{aligned}$ | US PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 54 \end{aligned}$ |


| L32 | 0 | (collimator\$ near (multiwavelength or multiwavelength)) and (wavelength near separator) and (micromirror\$ or micromirror) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 55 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L33 | 203 | (spatial near array near (mems or micromirror or micro-mirror)) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 56 \end{aligned}$ |
| L34 | 0 | (spatial near array near (mems or micromirror or micro-mirror)) and ((fiber or fibre) near collimator \$) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 56 \end{aligned}$ |
| L35 | 0 | (spatial near array near (mems or micromirror or micro-mirror)) and ((fiber or fibre) near (collimating or collimator or collimation)) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 58 \end{aligned}$ |
| L36 | 0 | (spatial near array near (mems or micromirror or micro-mirror)) and (wavelength near separator) | US PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 58 \end{aligned}$ |
| L37 | 3 | (spatial near array near (mems or micromirror or micro-mirror)) and (wavelength near (separating or separator or router or routing)) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | $\begin{aligned} & 2010 / 10 / 22 \\ & 12: 59 \end{aligned}$ |

## EAST Search History (I nterference)

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10/ 22/2010 1:01:11 PM
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Date Mailed: 07/06/2010

Receipt is acknowledged of this reissue patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections

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Assignment For Published Patent Application
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Power of Attorney: The patent practitioners associated with Customer Number 48789
Domestic Priority data as claimed by applicant
This application is a REI of 11/027,586 12/31/2004 PAT R,E39,397
which is a REI of 09/938,426 08/23/2001 PAT 6,625,346
which claims benefit of $60 / 277,21703 / 19 / 2001$

## Foreign Applications

If Required, Foreign Filing License Granted: 07/02/2010
The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is US 12/815,930

Projected Publication Date: None, application is not eligible for pre-grant publication

## Non-Publication Request: No

Early Publication Request: No


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[^1]:    htto://www.lexis.com/research/retrieve?_m=b380efe93cd9f2602c3ec1b043ec386e\&csi=6362\&_fmtstr=TOC\&wchp=dGLbVlb-z... 2/16/2011

[^2]:    Alive: US2002131687 A1, US6625346 B2

[^3]:    'A copy of this reference is not being furnished with this Office action. (See MPEP §707.05(a).)
    Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

[^4]:    10/22/2010
    ERSWeb 2. 17?
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[^5]:    
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