

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

|                                                                                      |                            |
|--------------------------------------------------------------------------------------|----------------------------|
| SUBMISSION TYPE:                                                                     | NEW ASSIGNMENT             |
| NATURE OF CONVEYANCE:                                                                | ASSIGNMENT                 |
| CONVEYING PARTY DATA                                                                 |                            |
| Name                                                                                 | Execution Date             |
| AZNA LLC                                                                             | 01/30/2008                 |
| RECEIVING PARTY DATA                                                                 |                            |
| Name:                                                                                | FINISAR CORPORATION        |
| Street Address:                                                                      | 1389 Moffett Park Drive    |
| City:                                                                                | Sunnyvale                  |
| State/Country:                                                                       | CALIFORNIA                 |
| Postal Code:                                                                         | 94089                      |
| PROPERTY NUMBERS Total: 1                                                            |                            |
| Property Type                                                                        | Number                     |
| Application Number:                                                                  | 11093461                   |
| CORRESPONDENCE DATA                                                                  |                            |
| Fax Number:                                                                          | (801)328-1707              |
| <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> |                            |
| Phone:                                                                               | 801-533-9800               |
| Email:                                                                               | jpogue@wnlaw.com           |
| Correspondent Name:                                                                  | R. Burns Israelsen         |
| Address Line 1:                                                                      | 1000 Eagle Gate Tower      |
| Address Line 2:                                                                      | 60 East South Temple       |
| Address Line 4:                                                                      | Salt Lake City, UTAH 84111 |
| ATTORNEY DOCKET NUMBER:                                                              | 15436.1248.28.1            |
| NAME OF SUBMITTER:                                                                   | R. Burns Israelsen         |
| Total Attachments: 15                                                                |                            |
| source=15436-1248-SignedAssignment(Azna)#page1.tif                                   |                            |
| source=15436-1248-SignedAssignment(Azna)#page2.tif                                   |                            |
| source=15436-1248-SignedAssignment(Azna)#page3.tif                                   |                            |
| source=15436-1248-SignedAssignment(Azna)#page4.tif                                   |                            |

OP \$40.00 11093461

500651194

PATENT  
REEL: 021550 FRAME: 0577

source=15436-1248-SignedAssignment(Azna)#page5.tif  
source=15436-1248-SignedAssignment(Azna)#page6.tif  
source=15436-1248-SignedAssignment(Azna)#page7.tif  
source=15436-1248-SignedAssignment(Azna)#page8.tif  
source=15436-1248-SignedAssignment(Azna)#page9.tif  
source=15436-1248-SignedAssignment(Azna)#page10.tif  
source=15436-1248-SignedAssignment(Azna)#page11.tif  
source=15436-1248-SignedAssignment(Azna)#page12.tif  
source=15436-1248-SignedAssignment(Azna)#page13.tif  
source=15436-1248-SignedAssignment(Azna)#page14.tif  
source=15436-1248-SignedAssignment(Azna)#page15.tif

WHEN RECORDED RETURN TO:

PATENT

Workman Nydegger  
1000 Eagle Gate Tower  
60 East South Temple  
Salt Lake City, Utah 84111

## ASSIGNMENT

WHEREAS, Azna LLC, a limited liability company of the State of Delaware, having a principal place of business at 1389 Moffett Park Drive, Sunnyvale, California 94089, (hereinafter referred to as ASSIGNOR) is the owner of record of the U.S., International and Foreign Patent Applications and Patents listed in Schedule A (hereinafter "Patent Properties");

WHEREAS, Finisar Corporation, a corporation of the State of Delaware, having a principal place of business at 1389 Moffett Park Drive, Sunnyvale, California 94089, (hereinafter referred to as ASSIGNEE), desires to acquire all right, title, and interest in and to the above-identified Patent Properties and in and to the inventions of the above-identified Patent Properties;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR hereby sells, assigns, and transfers unto ASSIGNEE:

The entire right, title and interest in the above-identified Patent Properties and in the corresponding inventions and in all subsequent divisions and continuations of said Patent Properties, or reissues or extensions thereof, and in all patents issuing thereon in the United States or foreign countries, and in all corresponding patent applications filed in countries foreign to the United States, and in all patents issuing thereon in said foreign countries.

The right to file foreign patent applications on said invention in its own name, wherever such right may be legally exercised, including the right to claim the benefits of the International Convention for such applications.

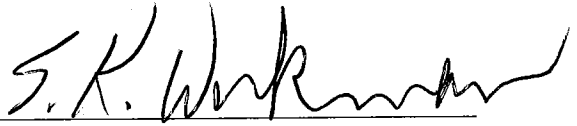
ASSIGNOR hereby authorizes and requests the Commissioner for Patents of the United States, and such Patent Office officials in foreign countries as are duly authorized by their patent laws to issue patents, to issue all letters patent on said Patent Properties to ASSIGNEE. ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of Patent Properties for United States and foreign letters patent on said Patent Properties, for litigation regarding said letters patent, or for the purpose of protecting title to said invention or letters patent therefor.

This assignment is effective the 30 day of January, 2008.

Signed this 30 day of January, 2008 on behalf of ASSIGNOR.

AZNA LLC

Signature: \_\_\_\_\_



Name: Steve Workman

Title: CFO

Accepted this 30 day of January, 2008 on behalf of ASSIGNEE.

FINISAR CORPORATION

Signature: \_\_\_\_\_



Name: Anders Olsson

Title: Sr. VP of Engineering

# Schedule A

| WN Docket No   |    | Title                                                                                                                                                           | Inventors                                                 | Filing Date | Serial No. | Patent Date | Patent No. |
|----------------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------|------------|-------------|------------|
| 15436.1248.1   | US | FEMTOSECOND LASER OSCILLATOR WITH PULSE PICKER FUNCTION                                                                                                         | Yasuhiro Matsui, Friedrich Strohkendl and Kevin McCallion | 02/19/03    | 60/448,392 |             |            |
| 15436.1248.2   | US | DISTRIBUTED SATURABLE ABSORBER FOR THE SUPPRESSION OF AMPLIFICATION OF SPONTANEOUS EMISSION AND FOR PASSIVE Q-SWITCHING IN PULSED LASER SYSTEMS                 | Friedrich Strohkendl                                      | 02/18/03    | 60/447,995 |             |            |
| 15436.1248.2.1 | US | DISTRIBUTED SATURABLE ABSORBER FOR THE SUPPRESSION OF AMPLIFICATION OF SPONTANEOUS EMISSION AND FOR PASSIVE Q-SWITCHING IN PULSED LASER SYSTEMS                 | Friedrich P. Strohkendl                                   | 02/19/03    | 60/448,369 |             |            |
| 15436.1248.3   | US | OPTICAL BEAM STEERING FOR TUNABLE LASER APPLICATIONS                                                                                                            | Kevin McCallion, Duncan Walker and Parviz Tayebati        | 02/25/03    | 60/449,917 |             |            |
| 15436.1248.3.1 | US | OPTICAL BEAM STEERING FOR TUNABLE LASER APPLICATIONS                                                                                                            | Parviz Tayebati, Kevin McCallion and Duncan Walker        | 02/25/04    | 10/786,839 |             |            |
| 15436.1248.4   | US | SATURABLE ABSORBER FIBER FOR THE SUPPRESSION OF AMPLIFICATION OF SPONTANEOUS EMISSION IN OPTICAL AMPLIFIERS AND FOR PASSIVE Q-SWITCHING IN PULSED LASER SYSTEMS | Friedrich Strohkendl                                      | 04/04/03    | 60/460,189 |             |            |
| 15436.1248.5   | US | (A) SINGLE MODE FIBER LASER OSCILLATORS BASED ON MULTIMODE FIBER AND (B) SHORT PULSE MODELOCKING WITH SLOWLY RELAXING SEMICONDUCTOR SATURABLE ABSORBER MIRRORS  | Friedrich Strohkendl                                      | 04/04/03    | 60/460,197 |             |            |
| 15436.1248.5.1 | US | (A) SINGLE MODE FIBER LASER OSCILLATORS BASED ON MULTIMODE FIBER AND (B) SHORT PULSE MODELOCKING WITH SLOWLY RELAXING SEMICONDUCTOR SATURABLE ABSORBER MIRRORS  | Friedrich Strohkendl                                      | 04/05/04    | 60/559,589 |             |            |

## Schedule A

| WN Docket No     |     | Title                                                                                                                                                          | Inventors                                                                                                         | Filing Date | Serial No.        | Patent Date | Patent No. |
|------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------|-------------------|-------------|------------|
| 15436.1248.5.2   | US  | (A) SINGLE MODE FIBER LASER OSCILLATORS BASED ON MULTIMODE FIBER AND (B) SHORT PULSE MODELOCKING WITH SLOWLY RELAXING SEMICONDUCTOR SATURABLE ABSORBER MIRRORS | Friedrich Strohkendl                                                                                              | 04/05/05    | 60/668,379        |             |            |
| 15436.1248.6     | US  | OPTICAL BEAM STEERING FOR TUNABLE LASER APPLICATIONS                                                                                                           | Parviz Tayebati, Kevin McCallion and Duncan Walker                                                                | 04/15/03    | 60/463,063        |             |            |
| 15436.1248.7     | US  | HIGH POWER STRETCHED PULSE OSCILLATOR WITH TUNABLE REPETITION RATE                                                                                             | Min Jiang                                                                                                         | 05/12/03    | 60/469,699        |             |            |
| 15436.1248.8     | US  | DOUBLE PASS FIBER AMPLIFIER WITH PULSE STRETCHER FOR HIGH POWER ULTRASHORT PULSE AMPLIFICATION                                                                 | Min Jiang                                                                                                         | 05/13/03    | 60/469,937        |             |            |
| 15436.1248.9     | US  | MULTI-KW FIBER LASER THROUGH TIME DIVISION MULTIPLEXING                                                                                                        | Min Jiang                                                                                                         | 05/28/03    | 60/473,740        |             |            |
| 15436.1248.10    | US  | TIME MULTIPLEXED MULTIFOCAL MULTIPHOTON MICROSCOPY                                                                                                             | Min Jiang and Donald L. McDaniel, Jr.                                                                             | 06/13/03    | 60/478,201        |             |            |
| 15436.1248.11    | US  | THERMAL STABILIZATION OF WAVELENGTH LOCKERS                                                                                                                    | Duncan Walker, Kevin McCallion, Michael Deutsch and Parviz Tayebati                                               | 06/17/03    | 60/479,087        |             |            |
| 15436.1248.12    | US  | CHIP-SCALE TDM TO WDM TRANSMITTER                                                                                                                              | Bart Johnson, Parviz Tayebati, Kevin McCallion, Donald L. McDaniel, Jr., Yasuhiro Matsui and Daniel Mahgerefteh   | 07/11/03    | 60/487,068        |             |            |
| 15436.1248.13    | US  | THERMAL CHIRP MANAGEMENT OF DIRECTLY MODULATED TRANSMITTER                                                                                                     | Daniel Mahgerefteh, Roeland Nuyts, Yasuhiro Matsui and Bart Johnson                                               | 09/05/03    | 60/500,540        |             |            |
| 15436.1248.13.1  | US  | METHOD AND APPARATUS FOR TRANSMITTING A SIGNAL USING THERMAL CHIRP MANAGEMENT OF A DIRECTLY MODULATED TRANSMITTER                                              | Daniel Mahgerefteh, Roeland Nuyts, Yasuhiro Matsui, Parviz Tayebati, Bart Johnson, Duncan Walker and Xueyan Zheng | 09/02/04    | 10/933,081        |             |            |
| 15436.1248.13.1a | PCT | METHOD AND APPARATUS FOR TRANSMITTING A SIGNAL USING THERMAL CHIRP MANAGEMENT OF A DIRECTLY MODULATED TRANSMITTER                                              | Daniel Mahgerefteh, Roeland Nuyts, Yasuhiro Matsui, Parviz Tayebati, Bart Johnson, Duncan Walker and Xueyan Zheng | 05/25/05    | PCT/US2005/018278 |             |            |

## Schedule A

| WN Docket No       |     | Title                                                                                                                                        | Inventors                                                                                                                                 | Filing Date | Serial No.   | Patent Date | Patent No. |
|--------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------|-------------|------------|
| 15436.1248.13.1a.1 | CN  | METHOD AND APPARATUS FOR TRANSMITTING A SIGNAL USING THERMAL CHIRP MANAGEMENT OF A DIRECTLY MODULATED TRANSMITTER                            | Daniel Mahgerefteh, Roeland Nuyts, Yasuhiro Matsui, Parviz Tayebati, Bart Johnson, Duncan Walker and Xueyan Zheng                         | 05/25/05    | 200580037807 |             |            |
| 15436.1248.13.1a.2 | EPO | METHOD AND APPARATUS FOR TRANSMITTING A SIGNAL USING THERMAL CHIRP MANAGEMENT OF A DIRECTLY MODULATED TRANSMITTER                            | Daniel Mahgerefteh, Roeland Nuyts, Yasuhiro Matsui, Parviz Tayebati, Bart Johnson, Duncan Walker and Xueyan Zheng                         | 05/25/05    | 05764209.2   |             |            |
| 15436.1248.14      | US  | 10GBS TRANSMITTER CONFIGURATION FOR 600KM REACH                                                                                              | Kevin McCallion, Parviz Tayebati, Duncan Walker and Zhencan (Frank) Fan                                                                   | 10/28/03    | 60/514,939   |             |            |
| 15436.1248.14.1    | US  | 10GBS TRANSMITTER CONFIGURATION FOR 600KM REACH                                                                                              | Kevin McCallion, Parviz Tayebati, Duncan Walker and Zhencan (Frank) Fan                                                                   | 10/28/04    | 60/622,913   |             |            |
| 15436.1248.15      | US  | IN-LINE TRANSMISSIVE TAP PHOTODETECTOR                                                                                                       | Parviz Tayebati, Yasuhiro Matsui and Kevin McCallion                                                                                      | 11/13/03    | 60/520,154   |             |            |
| 15436.1248.15.1    | US  | IN-LINE TRANSMISSIVE TAP PHOTODETECTOR                                                                                                       | Parviz Tayebati, Yasuhiro Matsui and Kevin McCallion                                                                                      | 11/12/04    | 60/627,598   |             |            |
| 15436.1248.16      | US  | OPTICAL TELECOMMUNICATION SYSTEM                                                                                                             | Daniel Mahgerefteh, Parviz Tayebati, Kevin McCallion, Duncan Walker, Roeland Nuyts, Yasuhiro Matsui, Bart Johnson and Zhencan (Frank) Fan | 12/17/03    | 60/530,479   |             |            |
| 15436.1248.16.1    | US  | CHIRP MANAGED, WAVELENGTH MULTIPLEXED, DIRECTLY MODULATED SOURCES USING AN ARRAYED WAVEGUIDE GRATING (AWG) AS MULTI-WAVELENGTH DISCRIMINATOR | Parviz Tayebati, Daniel Mahgerefteh and Kevin McCallion                                                                                   | 12/17/04    | 11/016,020   |             |            |
| 15436.1248.16.2    | US  | CHIRP MANAGED LASER WITH ELECTRONIC PRE-DISTORTION                                                                                           | Daniel Mahgerefteh, Yasuhiro Matsui and Parviz Tayebati                                                                                   | 12/17/04    | 11/016,466   |             |            |
| 15436.1248.16.3    | US  | MULTI-RING RESONATOR IMPLEMENTATION OF OPTICAL SPECTRUM RESHAPER FOR CHIRP MANAGED LASER TECHNOLOGY                                          | Kevin McCallion and Parviz Tayebati                                                                                                       | 12/17/04    | 11/015,591   | 10/09/07    | 7280721    |
| 15436.1248.16.3.1  | US  | MULTI-RING RESONATOR IMPLEMENTATION OF OPTICAL SPECTRUM RESHAPER FOR CHIRP MANAGED LASER TECHNOLOGY                                          | Kevin McCallion and Parviz Tayebati                                                                                                       | 02/05/07    | 11/702,436   |             |            |

# Schedule A

| WN Docket No      |    | Title                                                                                                            | Inventors                                                                          | Filing Date | Serial No. | Patent Date | Patent No. |
|-------------------|----|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------|------------|-------------|------------|
| 15436.1248.16.4   | US | CHIRP MANAGED LASER FIBER OPTIC SYSTEM INCLUDING AN ADAPTIVE RECEIVER                                            | Parviz Tayebati, Daniel Mahgerefteh and Kevin McCallion                            | 12/17/04    | 11/015,686 |             |            |
| 15436.1248.17     | US | CHIRPED MANAGED WAVELENGTH MULTIPLEXED DIRECTLY MODULATED SOURCES USING AN AWG AS MULTI-WAVELENGTH DISCRIMINATOR | Parviz Tayebati, Daniel Mahgerefteh and Kevin McCallion                            | 12/22/03    | 60/531,656 |             |            |
| 15436.1248.18     | US | CARRIER SUPPRESSION USING ADIABATIC FREQUENCY MODULATION (AFM)                                                   | Yasuhiro Matsui and Daniel Mahgerefteh                                             | 01/16/04    | 60/536,929 |             |            |
| 15436.1248.18.1   | US | CARRIER SUPPRESSION USING ADIABATIC FREQUENCY MODULATION (AFM)                                                   | Yasuhiro Matsui and Daniel Mahgerefteh                                             | 01/18/05    | 11/037,893 | 03/06/07    | 7,187,821  |
| 15436.1248.18.1.1 | US | CARRIER SUPPRESSION USING ADIABATIC FREQUENCY MODULATION (AFM)                                                   | Yasuhiro Matsui and Daniel Mahgerefteh                                             | 03/02/07    | 11/713,571 |             |            |
| 15436.1248.19     | US | CHIRP MANAGED DIRECTLY MODULATED LASER WITH BAND WIDTH LIMITING FREQUENCY DISCRIMINATOR                          | Yasuhiro Matsui, Duncan Walker, Daniel Mahgerefteh and Parviz Tayebati             | 01/16/04    | 60/536,967 |             |            |
| 15436.1248.19.1   | US | CHIRP MANAGED DIRECTLY MODULATED LASER WITH BANDWIDTH LIMITING OPTICAL SPECTRUM RESHAPER                         | Yasuhiro Matsui, Duncan Walker, Daniel Mahgerefteh and Parviz Tayebati             | 01/18/05    | 11/037,718 |             |            |
| 15436.1248.20     | US | ADIABATIC FREQUENCY MODULATED TRANSMITTER WITH NEGATIVE CHIRP                                                    | Daniel Mahgerefteh and Parviz Tayebati                                             | 01/20/04    | 60/537,737 |             |            |
| 15436.1248.20.1   | US | ADIABATIC FREQUENCY MODULATED TRANSMITTER WITH NEGATIVE CHIRP                                                    | Daniel Mahgerefteh and Parviz Tayebati                                             | 01/21/05    | 11/040,053 |             |            |
| 15436.1248.21     | US | CO-PACKAGED TRANSMITTER FOR DWDM APPLICATIONS                                                                    | Kevin McCallion, Duncan Walker, Michael Deutsch, Guoxi Sun and Zhencan (Frank) Fan | 01/26/04    | 60/539,225 |             |            |
| 15436.1248.22     | US | ADIABATICALLY FREQUENCY MODULATED SOURCE                                                                         | Yasuhiro Matsui                                                                    | 02/04/04    | 60/541,816 |             |            |
| 15436.1248.22.1   | US | ADIABATICALLY FREQUENCY MODULATED SOURCE                                                                         | Yasuhiro Matsui and Daniel Mahgerefteh                                             | 02/04/05    | 11/051,893 |             |            |

## Schedule A

| WN Docket No       |        | Title                                                                                                                               | Inventors                                                                                                                                | Filing Date | Serial No.     | Patent Date | Patent No. |
|--------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------|-------------|------------|
| 15436.1248.23      | US     | ERROR-FREE 250-KM TRANSMISSION IN STANDARD FIBER USING A COMPACT 10 GB/S CHIRP-MANAGED DIRECTLY MODULATED (CMDMTM) LASER AT 1550 NM | Charlie Liao, Daniel Mahgerefteh, Yasuhiro Matsui, Bart Johnson, Duncan Walker, Zhencan (Frank) Fan, Kevin McCallion and Parviz Tayebati | 02/22/04    | 60/546,842     |             |            |
| 15436.1248.24      | US     | OPTICAL SYSTEM COMPRISING AN FM SOURCE AND A SPECTRAL RESHAPING ELEMENT                                                             | Yasuhiro Matsui, Daniel Mahgerefteh, Duncan Walker, Bart Johnson and Parviz Tayebati                                                     | 02/27/04    | 60/548,230     |             |            |
| 15436.1248.24.1    | US     | OPTICAL SYSTEM COMPRISING AN FM SOURCE AND A SPECTRAL RESHAPING ELEMENT                                                             | Daniel Mahgerefteh, Yasuhiro Matsui, Xueyan Zheng, Bart Johnson, Duncan Walker and Parviz Tayebati                                       | 02/28/05    | 11/068,032     |             |            |
| 15436.1248.24.1a   | PCT    | OPTICAL SYSTEM COMPRISING AN FM SOURCE AND A SPECTRAL RESHAPING ELEMENT                                                             | Filed in the name of Azna LLC                                                                                                            | 02/28/05    | PCT/US05/06412 |             |            |
| 15436.1248.24.1a.1 | Canada | OPTICAL SYSTEM COMPRISING AN FM SOURCE AND A SPECTRAL RESHAPING ELEMENT                                                             | Filed in the name of Azna LLC                                                                                                            | 02/28/05    | 2,557,150      |             |            |
| 15436.1248.24.1a.2 | CN     | OPTICAL SYSTEM COMPRISING AN FM SOURCE AND A SPECTRAL RESHAPING ELEMENT                                                             | Filed in the name of Azna LLC                                                                                                            | 02/28/05    | 200580012705.4 |             |            |
| 15436.1248.24.1a.3 | EPO    | OPTICAL SYSTEM COMPRISING AN FM SOURCE AND A SPECTRAL RESHAPING ELEMENT                                                             | Filed in the name of Azna LLC                                                                                                            | 02/28/05    | 05724041.8     |             |            |
| 15436.1248.24.1a.4 | JP     | OPTICAL SYSTEM COMPRISING AN FM SOURCE AND A SPECTRAL RESHAPING ELEMENT                                                             | Filed in the name of Azna LLC                                                                                                            | 02/28/05    | 2007-500803    |             |            |
| 15436.1248.25      | US     | ARRAY OF DIRECTLY MODULATED LASERS                                                                                                  | Parviz Tayebati, Zhencan (Frank) Fan and Kevin McCallion                                                                                 | 03/08/04    | 60/551,226     |             |            |
| 15436.1248.25.1    | US     | ARRAY OF DIRECTLY MODULATED LASERS                                                                                                  | Parviz Tayebati, Zhencan (Frank) Fan and Kevin McCallion                                                                                 | 03/08/05    | 60/659,840     |             |            |
| 15436.1248.26      | US     | METHOD OF TRANSMISSION USING PARTIAL FM AND AM MODULATION                                                                           | Daniel Mahgerefteh and Yasuhiro Matsui                                                                                                   | 03/18/04    | 60/554,249     |             |            |
| 15436.1248.26.1    | US     | METHOD AND APPARATUS FOR TRANSMITTING A SIGNAL USING SIMULTANEOUS FM AND AM MODULATION                                              | Daniel Mahgerefteh, Yasuhiro Matsui, Parviz Tayebati and Xueyan Zheng                                                                    | 03/18/05    | 11/084,633     |             |            |
| 15436.1248.26.1a   | PCT    | METHOD AND APPARATUS FOR TRANSMITTING A SIGNAL USING SIMULTANEOUS FM AND AM MODULATION                                              | Filed in the name of Azna LLC                                                                                                            | 03/18/05    | PCT/US05/09398 |             |            |

## Schedule A

| WN Docket No       |        | Title                                                                                            | Inventors                                                                                               | Filing Date | Serial No.     | Patent Date | Patent No. |
|--------------------|--------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-------------|----------------|-------------|------------|
| 15436.1248.27      | US     | FLAT CHIRP INDUCED BY FILTER EDGE                                                                | Daniel Mahgerefteh and Yasuhiro Matsui                                                                  | 03/18/04    | 60/554,243     |             |            |
| 15436.1248.27.1    | US     | FLAT-TOPPED CHIRP INDUCED BY OPTICAL FILTER EDGE                                                 | Daniel Mahgerefteh, Yasuhiro Matsui, Parviz Tayebati and Xueyan Zheng                                   | 03/18/05    | 11/084,630     |             |            |
| 15436.1248.27.1a   | PCT    | FLAT-TOPPED CHIRP INDUCED BY OPTICAL FILTER EDGE                                                 | Filed in the name of Azna LLC                                                                           | 03/18/05    | PCT/US05/09399 |             |            |
| 15436.1248.27.1a.1 | Canada | FLAT-TOPPED CHIRP INDUCED BY OPTICAL FILTER EDGE                                                 | Filed in the name of Azna LLC                                                                           | 03/18/05    | 2,561,128      |             |            |
| 15436.1248.27.1a.2 | China  | FLAT-TOPPED CHIRP INDUCED BY OPTICAL FILTER EDGE                                                 | Filed in the name of Azna LLC                                                                           | 03/18/05    | 200580015245.0 |             |            |
| 15436.1248.27.1a.3 | EPO    | FLAT-TOPPED CHIRP INDUCED BY OPTICAL FILTER EDGE                                                 | Filed in the name of Azna LLC                                                                           | 03/18/05    | 05731268.8     |             |            |
| 15436.1248.28      | US     | REACH EXTENSION BY USING EXTERNAL FIBER BRAGG GRATING FOR SPECTRAL FILTERING                     | Yasuhiro Matsui and Parviz Tayebati                                                                     | 03/30/04    | 60/557,538     |             |            |
| 15436.1248.28.1    | US     | REACH EXTENSION BY USING EXTERNAL BRAGG GRATING FOR SPECTRAL FILTERING                           | Yasuhiro Matsui, Parviz Tayebati and Kevin McCallion                                                    | 03/30/05    | 11/093,461     |             |            |
| 15436.1248.29      | US     | TECHNICAL INNOVATION                                                                             | Yasuhiro Matsui and Xueyan Zheng                                                                        | 04/22/04    | 60/564,366     |             |            |
| 15436.1248.29.1    | US     | TECHNICAL INNOVATION                                                                             | Yasuhiro Matsui and Xueyan Zheng                                                                        | 04/20/05    | 60/673,132     |             |            |
| 15436.1248.29.2    | US     | TECHNICAL INNOVATION                                                                             | Yasuhiro Matsui and Xueyan Zheng                                                                        | 04/12/06    | 60/791,272     |             |            |
| 15436.1248.29.3    | US     | TECHNICAL INNOVATION                                                                             | Yasuhiro Matsui and Xueyan Zheng                                                                        | 04/02/07    | 60/921,402     |             |            |
| 15436.1248.30      | US     | METHOD OF TRANSMISSION USING PARTIAL FM AND AM MODULATION                                        | Daniel Mahgerefteh and Yasuhiro Matsui                                                                  | 04/28/04    | 60/566,060     |             |            |
| 15436.1284.31      | US     | THERMAL CHIRP COMPENSATION SYSTEMS FOR A CHIRP MANAGED DIRECTLY MODULATED (CMDM) LASER DATA LINK | Bart Johnson, Daniel Mahgerefteh, Kevin McCallion, Zhencan (Frank) Fan and Parviz Tayebati              | 04/30/04    | 60/567,043     |             |            |
| 15436.1248.31.1    | US     | THERMAL CHIRP COMPENSATION SYSTEMS FOR A CHIRP MANAGED DIRECTLY MODULATED LASER (CML) DATA LINK  | Bart Johnson, Daniel Mahgerefteh, Kevin McCallion, Zhencan (Frank) Fan, David Piede and Parviz Tayebati | 05/02/05    | 11/120,089     |             |            |
| 15436.1248.32      | US     | ADIABATIC FREQUENCY MODULATION (AFM)                                                             | Daniel Mahgerefteh and Yasuhiro Matsui                                                                  | 05/03/04    | 60/567,737     |             |            |
| 15436.1248.33      | US     | FLAT CHIRP INDUCED BY AN OPTICAL FILTER EDGE                                                     | Daniel Mahgerefteh, Yasuhiro Matsui and Parviz Tayebati                                                 | 05/10/04    | 60/569,769     |             |            |
| 15436.1248.34      | US     | METHOD OF TRANSMISSION USING PARTIAL FM TO AM MODULATION                                         | Daniel Mahgerefteh, Yasuhiro Matsui and Parviz Tayebati                                                 | 05/10/04    | 60/569,768     |             |            |

## Schedule A

| WN Docket No      |    | Title                                                                                                                           | Inventors                                                                                                           | Filing Date | Serial No. | Patent Date | Patent No. |
|-------------------|----|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------|------------|-------------|------------|
| 15436.1248.35     | US | PHASE CORRELATED AMPLITUDE MODULATION                                                                                           | Daniel Mahgerefteh and Parviz Tayebati                                                                              | 06/18/04    | 60/581,076 |             |            |
| 15436.1248.35.1   | US | PHASE CORRELATED QUADRATURE AMPLITUDE MODULATION                                                                                | Daniel Mahgerefteh, Xueyan Zheng and Parviz Tayebati                                                                | 06/20/05    | 11/157,055 |             |            |
| 15436.1248.36     | US | IMPLEMENTATION OF EXTERNAL CAVITY LASER MODULE IN TOSA FORMAT FOR XFP TRANSCEIVER DEPLOYMENT                                    | Zhencan (Frank) Fan, Kevin McCallion and Parviz Tayebati                                                            | 08/26/04    | 60/604,750 |             |            |
| 15436.1248.37     | US | PHASE CORRELATED QUADRATURE AMPLITUDE MODULATION                                                                                | Daniel Mahgerefteh, Xueyan Zheng and Parviz Tayebati                                                                | 10/04/04    | 60/615,834 |             |            |
| 15436.1248.38     | US | ERROR-FREE 250-KM TRANSMISSION IN STANDARD FIBER USING COMPACT 10GB/S CHIRP-MANAGED DIRECTLY-MODULATED LASERS (CMLTM) AT 1550NM | Daniel Mahgerefteh, Yasuhiro Matsui, Bart Johnson, Duncan Walker, Xueyan Zheng, Kevin McCallion and Parviz Tayebati | 10/13/04    | 60/618,467 |             |            |
| 15436.1248.39     | US | SPECTRAL RESPONSE MODIFICATION VIA SPATIAL FILTERING WITH OPTICAL FIBER                                                         | Kevin McCallion, Daniel Mahgerefteh, Michael Deutsch and Parviz Tayebati                                            | 10/25/04    | 60/621,755 |             |            |
| 15436.1248.39.1   | US | SPECTRAL RESPONSE MODIFICATION VIA SPATIAL FILTERING WITH OPTICAL FIBER                                                         | Kevin McCallion, Daniel Mahgerefteh, Michael Deutsch and Parviz Tayebati                                            | 10/24/05    | 60/729,546 |             |            |
| 15436.1248.39.2   | US | SPECTRAL RESPONSE MODIFICATION VIA SPATIAL FILTERING WITH OPTICAL FIBER                                                         | Kevin McCallion, Daniel Mahgerefteh, Michael Deutsch and Parviz Tayebati                                            | 10/24/06    | 60/853,867 |             |            |
| 15436.1248.39.2.1 | US | SPECTRAL RESPONSE MODIFICATION VIA SPATIAL FILTERING WITH OPTICAL FIBER                                                         | Kevin McCallion, Daniel Mahgerefteh, Michael Deutsch and Parviz Tayebati                                            | 10/24/07    | 11/977,206 |             |            |
| 15436.1248.40     | US | OPTICAL SYSTEM COMPRISING AN FM SOURCE AND A SPECTRAL RESHAPING ELEMENT                                                         | Yasuhiro Matsui, Daniel Mahgerefteh, Duncan Walker, Bart Johnson, Parviz Tayebati and Xueyan Zheng                  | 11/19/04    | 60/629,741 |             |            |
| 15436.1248.41     | US | INTEGRAL PHASE RULE FOR OPTIMUM OPERATION OF AN ADIABATICALLY CHIRPED AMPLITUDE MODULATION SIGNAL                               | Daniel Mahgerefteh, Parviz Tayebati, Xueyan Zheng and Yasuhiro Matsui                                               | 01/31/05    | 60/648,593 |             |            |
| 15436.1248.42     | US | OPTOELECTRONIC PACKAGING OF CML TRANSMITTER MODULES                                                                             | Kevin McCallion, Michael Deutsch and Parviz Tayebati                                                                | 02/10/05    | 60/651,947 |             |            |
| 15436.1248.43     | US | OPTOELECTRONIC PACKAGING OF CML TRANSMITTER MODULES                                                                             | Kevin McCallion, Michael Deutsch and Parviz Tayebati                                                                | 02/07/06    | 60/771,125 |             |            |
| 15436.1248.43.1   | US | OPTOELECTRONIC PACKAGING OF CML TRANSMITTER MODULES                                                                             | Kevin McCallion, Michael Deutsch and Parviz Tayebati                                                                | 02/02/07    | 60/899,229 |             |            |

## Schedule A

| WN Docket No    |  | Title                                                                                                                                              | Inventors                                                                                                                                           | Filing Date | Serial No. | Patent Date | Patent No. |
|-----------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------|-------------|------------|
| 15436.1248.44   |  | ERROR-FREE 250-KM TRANSMISSION IN STANDARD FIBER USING COMPACT 10GB/S CHIRP-MANAGED DIRECTLY MODULATED LASERS (CMLTM) AT 1550NM                    | Daniel Mahgerefteh, Yasuhiro Matsui, Charlie Liao, Bart Johnson, Duncan Walker, Xueyan Zheng, Zhencan Frank Fan, Kevin McCallio and Parviz Tayebati | 02/11/05    | 60/652,089 |             |            |
| 15436.1248.45   |  | COMPACT OPTICAL RECEIVER SINGLE PHOTON DETECTION APPLICATIONS                                                                                      | Kevin McCallion, Jianying Zhou, Michael Deutsch, Frank Fan, Daniel Mahgerefteh and Charlie Liao                                                     | 02/17/05    | 60/653,762 |             |            |
| 15436.1248.46   |  | ULTRA LOW RELATIVE INTENSITY NOISE LASER MODULE                                                                                                    | Daniel Mahgerefteh, Yasuhiro Matsui and Parviz Tayebati                                                                                             | 05/05/05    | 60/678,014 |             |            |
| 15436.1248.46.1 |  | OPTICAL SOURCE WITH ULTRA-LOW RELATIVE INTENSITY NOISE (RIN)                                                                                       | Daniel Mahgerefteh, Yasuhiro Matsui and Parviz Tayebati                                                                                             | 05/05/06    | 11/418,707 |             |            |
| 15436.1248.47   |  | METHOD AND APPARATUS FOR TRANSMITTING A SIGNAL USING CML AND OSR BEFORE OPTICAL RECEIVER                                                           | Xueyan Zheng, Yasuhiro Matsui, Daniel Mahgerefteh and Parviz Tayebati                                                                               | 06/06/05    | 60/687,745 |             |            |
| 15436.1248.47.1 |  | METHOD AND APPARATUS FOR TRANSMITTING A SIGNAL USING A CHIRP MANAGED LASER (CML) AND AN OPTICAL SPECTRUM RESHAPER (OSR) BEFORE AN OPTICAL RECEIVER | Xueyan Zheng, Yasuhiro Matsui, Daniel Mahgerefteh and Parviz Tayebati                                                                               | 06/06/06    | 11/447,662 |             |            |
| 15436.1248.48   |  | SELF-GATED FIBER MOPA WITH SINGLE STAGE GAIN UP TO 40DB                                                                                            | Min Jiang                                                                                                                                           | 07/26/05    | 60/702,493 |             |            |
| 15436.1248.49   |  | METHOD AND APPARATUS FOR REDUCTION OF FIBER NONLINEARITY IN A TRANSMISSION SYSTEM                                                                  | Parviz Tayebati and Daniel Mahgerefteh                                                                                                              | 08/16/05    | 60/708,455 |             |            |
| 15436.1248.49.1 |  | METHOD AND APPARATUS FOR REDUCTION OF FIBER NONLINEARITY IN A TRANSMISSION SYSTEM                                                                  | Parviz Tayebati and Daniel Mahgerefteh                                                                                                              | 08/16/06    | 60/838,026 |             |            |
| 15436.1248.49.2 |  | METHOD AND APPARATUS FOR REDUCTION OF FIBER NONLINEARITY IN A TRANSMISSION SYSTEM                                                                  | Parviz Tayebati and Daniel Mahgerefteh                                                                                                              | 08/07/07    | 60/963,707 |             |            |
| 15436.1248.50   |  | CHIRP-MANAGED DIRECTLY MODULATED LASER (CMLTM)                                                                                                     | Yasuhiro Matsui, Daniel Mahgerefteh, Xueyan Zheng, Charlie Liao, Zhencan Frank Fan, Kevin McCallion and Parviz Tayebati                             | 09/29/05    | 60/721,874 |             |            |
| 15436.1248.51   |  | WIDELY TUNABLE DISPERSION TOLERANT TRANSMITTER                                                                                                     | Kevin McCallion, Yasuhiro Matsui, Jianying Zhou, Michael Deutsch and Parviz Tayebati                                                                | 12/08/05    | 60/748,466 |             |            |

## Schedule A

| WN Docket No    |    | Title                                                                                             | Inventors                                                                                                | Filing Date | Serial No. | Patent Date | Patent No. |
|-----------------|----|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------|------------|-------------|------------|
| 15436.1248.51.1 |    | WIDELY TUNABLE, DISPERSION TOLERANT TRANSMITTER                                                   | Kevin McCallion, Yasuhiro Matsui, Jianying Zhou, Michael Deutsch, Parviz Tayebati and Daniel Mahgerefteh | 12/08/06    | 11/635,861 |             |            |
| 15436.1248.52   |    | CHIRP MANAGED LASERS FOR LONG REACH TRANSMISSION                                                  | Yasuhiro Matsui, Daniel Mahgerefteh and Kevin McCallion                                                  | 12/28/05    | 60/754,578 |             |            |
| 15436.1248.52.1 |    | CHIRP MANAGED LASERS FOR LONG REACH TRANSMISSION                                                  | Yasuhiro Matsui, Daniel Mahgerefteh and Kevin McCallion                                                  | 12/22/06    | 60/876,862 |             |            |
| 15436.1248.53   |    | WIDELY TUNABLE CHIRP MANAGED LASERS                                                               | Kevin McCallion and Yasuhiro Matsui                                                                      | 12/28/05    | 60/754,244 |             |            |
| 15436.1248.53.1 |    | WIDELY TUNABLE CHIRP MANAGED LASERS                                                               | Kevin McCallion and Yasuhiro Matsui                                                                      | 12/22/06    | 60/876,864 |             |            |
| 15436.1248.54   |    | WIDELY TUNABLE CHIRP MANAGED LASERS                                                               | Kevin McCallion and Yasuhiro Matsui                                                                      | 01/26/06    | 60/762,270 |             |            |
| 15436.1248.54.1 |    | WIDELY TUNABLE CHIRP MANAGED LASERS                                                               | Kevin McCallion and Yasuhiro Matsui                                                                      | 01/09/07    | 60/879,430 |             |            |
| 15436.1248.55   |    | DOUBLE-PASS FIBER MOPA WITH DYNAMIC GAIN CONTROL                                                  | Mindy Jiang                                                                                              | 01/31/06    | 60/763,837 |             |            |
| 15436.1248.56   |    | TUNABLE, RESONANCE ENHANCED TEC COOLED QUANTUM DOT INGaAs/GaAs PHOTO DETECTOR                     | Daniel Mahgerefteh, Yasuhiro Matsui and Kevin McCallion                                                  | 01/31/06    | 60/763,836 |             |            |
| 15436.1248.57   |    | INTEGRAL PHASE RULE FOR OPTIMUM OPERATION OF AN ADIABATICALLY CHIRPED AMPLITUDE MODULATION SIGNAL | Daniel Mahgerefteh, Parviz Tayebati, Xueyan Zheng and Yasuhiro Matsui                                    | 01/31/06    | 60/763,834 |             |            |
| 15436.1248.57.1 |    | INTEGRAL PHASE RULE FOR OPTIMUM OPERATION OF AN ADIABATICALLY CHIRPED AMPLITUDE MODULATION SIGNAL | Daniel Mahgerefteh, Parviz Tayebati, Xueyan Zheng and Yasuhiro Matsui                                    | 12/28/06    | 60/877,425 |             |            |
| 15436.1248.58   |    | TUNABLE SAMPLED-GRATING DBR LASER                                                                 | Yasuhiro Matsui, Kevin McCallion and Parviz Tayebati                                                     | 02/17/06    | 60/774,914 |             |            |
| 15436.1248.58.1 |    | TUNABLE SAMPLED-GRATING DBR LASER                                                                 | Yasuhiro Matsui, Kevin McCallion and Parviz Tayebati                                                     | 02/07/07    | 60/900,049 |             |            |
| 15436.1248.59   |    | TUNABLE LASER                                                                                     | Parviz Tayebati, Kevin McCallion and Yasuhiro Matsui                                                     | 02/22/06    | 60/775,831 |             |            |
| 15436.1248.59.1 |    | TUNABLE LASER                                                                                     | Parviz Tayebati, Kevin McCallion and Yasuhiro Matsui                                                     | 02/08/07    | 60/900,293 |             |            |
| 15436.1248.60   | US | WDM PON BASED ON CML                                                                              | Yasuhiro Matsui, Parviz Tayebati and Kevin McCallion                                                     | 02/22/06    | 60/775,830 |             |            |
| 15436.1248.60.1 | US | WDM PON BASED ON CML                                                                              | Yasuhiro Matsui, Parviz Tayebati and Kevin McCallion                                                     | 02/08/07    | 60/900,383 |             |            |

## Schedule A

| WN Docket No    |    | Title                                                                            | Inventors                                                                              | Filing Date | Serial No.        | Patent Date | Patent No. |
|-----------------|----|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------|-------------------|-------------|------------|
| 15436.1248.61   | US | OPTICAL FM SOURCE BASED ON INTRA-CAVITY PHASE AND AMPLITUDE MODULATION IN LASERS | Yasuhiro Matsui, Kevin McCallion, Daniel Mahgerefteh, Xueyan Zheng and Parviz Tayebati | 03/27/06    | 60/786,168        |             |            |
| 15436.1248.61.1 | US | OPTICAL FM SOURCE BASED ON INTRA-CAVITY PHASE AND AMPLITUDE MODULATION IN LASERS | Yasuhiro Matsui, Kevin McCallion, Daniel Mahgerefteh, Xueyan Zheng and Parviz Tayebati | 03/12/07    | 60/906,333        |             |            |
| 15436.1248.62   | US | HUNT FOR THE BEST PULSE SHAPE                                                    | Yasuhiro Matsui                                                                        | 04/06/06    | 60/789,859        |             |            |
| 15436.1248.62.1 | US | IMPROVED CHIRP MANAGED LASER (CML) TRANSMITTER                                   | Yasuhiro Matsui and Daniel Mahgerefteh                                                 | 04/06/07    | 11/784,411        |             |            |
| 15436.1248.63   | US | VERSATILE COMPACT TRANSMITTER FOR GENERATION OF ADVANCED MODULATION FORMATS      | Daniel Mahgerefteh, Xueyan Zheng, Yasuhiro Matsui and Parviz Tayebati                  | 04/06/06    | 60/789,863        |             |            |
| 15436.1248.63.1 | US | VERSATILE COMPACT TRANSMITTER FOR GENERATION OF ADVANCED MODULATION FORMATS      | Daniel Mahgerefteh, Xueyan Zheng, Yasuhiro Matsui and Parviz Tayebati                  | 04/06/07    | 11/784,395        |             |            |
| 15436.1248.63a  | US | VERSATILE COMPACT TRANSMITTER FOR GENERATION OF ADVANCED MODULATION FORMATS      | Field in the name of Azna LLC                                                          | 04/06/07    | PCT/US2007/008729 |             |            |
| 15436.1248.64   | US | OPTICAL FM SOURCE BASED ON INTRA-CAVITY PHASE AND AMPLITUDE MODULATION IN LASERS | Yasuhiro Matsui and Parviz Tayebati                                                    | 04/13/06    | 60/791,823        |             |            |
| 15436.1248.64.1 | US | OPTICAL FM SOURCE BASED ON INTRA-CAVITY PHASE AND AMPLITUDE MODULATION IN LASERS | Yasuhiro Matsui, Parviz Tayebati and Daniel Mahgerefteh                                | 04/13/07    | 11/787,163        |             |            |
| 15436.1248.65   | US | TUNABLE LASER                                                                    | Parviz Tayebati, Kevin McCallion and Yasuhiro Matsui                                   | 04/13/06    | 60/791,735        |             |            |
| 15436.1248.65.1 | US | TUNABLE LASER                                                                    | Parviz Tayebati, Kevin McCallion and Yasuhiro Matsui                                   | 04/13/07    | 60/923,370        |             |            |
| 15436.1248.66   | US | OPTICAL FM SOURCE TUNABLE TRANSMITTER FOR OPTICAL COMMUNICATION SYSTEMS          | Yasuhiro Matsui, Kevin McCallion and Parviz Tayebati                                   | 05/04/06    | 60/797,513        |             |            |
| 15436.1248.66.1 | US | OPTICAL FM SOURCE TUNABLE TRANSMITTER FOR OPTICAL COMMUNICATION SYSTEMS          | Yasuhiro Matsui, Kevin McCallion and Parviz Tayebati                                   | 05/04/07    | 60/927,727        |             |            |
| 15436.1248.67   | US | TUNABLE LASER                                                                    | Parviz Tayebati, Kevin McCallion and Yasuhiro Matsui                                   | 05/12/06    | 60/799,887        |             |            |

## Schedule A

| WN Docket No    |     | Title                                                            | Inventors                                                                                          | Filing Date | Serial No.        | Patent Date | Patent No. |
|-----------------|-----|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-------------|-------------------|-------------|------------|
| 15436.1248.67.1 | US  | TUNABLE LASER                                                    | Parviz Tayebati, Kevin McCallion and Yasuhiro Matsui                                               | 05/14/07    | 60/930,078        |             |            |
| 15436.1248.68   | US  | SEMICONDUCTOR OPTICAL AMPLIFIER BASED OPTICAL TRANSMISSION       | Yasuhiro Matsui, Daniel Magherefteh, Xueyan Zheng, Kevin McCallion and Parviz Tayebati             | 08/18/06    | 60/838,548        |             |            |
| 15436.1248.68.1 | US  | OPTICAL TRANSMISSION USING SEMICONDUCTOR OPTICAL AMPLIFIER (SOA) | Yasuhiro Matsui, Daniel Magherefteh, Xueyan Zheng, Kevin McCallion and Parviz Tayebati             | 08/20/07    | 11/894,509        |             |            |
| 15436.1248.68a  | PCT | OPTICAL TRANSMISSION USING SEMICONDUCTOR OPTICAL AMPLIFIER (SOA) | Yasuhiro Matsui, Daniel Magherefteh, Xueyan Zheng, Kevin McCallion and Parviz Tayebati             | 08/20/07    | PCT/US2007/018427 |             |            |
| 15436.1248.69   | US  | CHIRP MANAGED ELECTRO-ABSORPTION MODULATED LASER                 | Daniel Mahgerefteh, Yasuhiro Matsui, Xueyan Zheng, Bart Johnson, Duncan Walker and Parviz Tayebati | 08/21/06    | 60/838,985        |             |            |
| 15436.1248.69.1 | US  | CHIRP-MANAGED, ELECTROABSORPTION-MODULATED LASER                 | Daniel Mahgerefteh, Yasuhiro Matsui, Xueyan Zheng, Bart Johnson, Duncan Walker and Parviz Tayebati | 08/21/07    | 11/894,477        |             |            |
| 15436.1248.69a  | PCT | CHIRP-MANAGED, ELECTROABSORPTION-MODULATED LASER                 | Daniel Mahgerefteh, Yasuhiro Matsui, Xueyan Zheng, Bart Johnson, Duncan Walker and Parviz Tayebati | 08/21/07    | PCT/US2007/018448 |             |            |
| 15436.1248.70   | US  | TUNABLE SAMPLED-GRATING DBR LASER                                | Yasuhiro Matsui, Kevin McCallion and Parviz Tayebati                                               | 08/31/06    | 60/841,421        |             |            |
| 15436.1248.70.1 | US  | TUNABLE SAMPLED-GRATING DBR LASER                                | Yasuhiro Matsui, Kevin McCallion and Parviz Tayebati                                               | 08/30/07    | 60/966906         |             |            |
| 15436.1248.71   | US  | LOSS MODULATION                                                  | Yasuhiro Matsui and Parviz Tayebati                                                                | 08/31/06    | 60/841,594        |             |            |

## Schedule A

| WN Docket No      |    | Title                                                                                                                                               | Inventors                                                                                                     | Filing Date | Serial No. | Patent Date | Patent No. |
|-------------------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------|------------|-------------|------------|
| 15436.1248.72     | US | METHOD AND APPARATUS FOR GENERATING OPTICAL SIGNALS WITH SUBSTANTIALLY INCREASED DISPERSION TOLERANCE BY MEANS OF A CHIRP MANAGED LASER TRANSMITTER | Fred L. Heismann, Daniel Mahgerefteh and Parviz Tayebati                                                      | 01/22/07    | 60/881,637 |             |            |
| 15436.1248.73     | US | METHODS AND APPARATUS OF SLOW CHIRP COMPENSATION FOR ENHANCED SIGNAL BANDWIDTH AND TRANSMISSION PERFORMANCES IN DIRECTLY MODULATED LASERS           | Jianying Zhou, Xueyan Zheng, Kevin McCallion, Daniel Mahgerefteh, Hongmin Chen, Guoxi Sun and Parviz Tayebati | 02/08/07    | 60,900,386 |             |            |
| 15436.1248.74     | US | WIDELY TUNABLE CHIRP MANAGED LASER (CML)                                                                                                            | Daniel Mahgerefteh                                                                                            | 03/15/07    | 60/918,240 |             |            |
| 15436.1248.75     | US | COMPACT LOW COST 100 GBPS TRANSCEIVER FOR OPTICAL WIDE AREA NETWORKS                                                                                | Daniel Mahgerefteh, Kevin McCallion, The' Linh Nguyen, David Allouche                                         | 05/23/07    | 60/931,359 |             |            |
| 15436.1248.76     | US | COMPACT HIGH POWER CHIRP MANAGED LASER                                                                                                              | Anders Olsson, Daniel Mahgerefteh                                                                             | 08/03/07    | 60/963,360 |             |            |
| 15436.1248.76.1   | US | COMPACT HIGH POWER CHIRP MANAGED LASER                                                                                                              | Anders Olsson, Daniel Mahgerefteh                                                                             | 08/03/07    | 60/963,347 |             |            |
| 15436.1248.77     | US | OPTICAL DISCRIMINATOR FOR CONVERTING FREQUENCY MODULATION TO AMPLITUDE MODULATION IN A FIBER OPTICS COMMUNICATION SYSTEM                            | Daniel Mahgerefteh and Parviz Tayebati                                                                        | 08/06/02    | 60/401,419 |             |            |
| 15436.1248.78     | US | FLAT DISPERSION FREQUENCY DISCRIMINATOR                                                                                                             | Daniel Mahgerefteh and Parviz Tayebati                                                                        | 10/04/02    | 60/416,102 |             |            |
| 15436.1248.78.1   | US | FLAT DISPERSION FREQUENCY DISCRIMINATOR (FDFD)                                                                                                      | Daniel Mahgerefteh, Duncan John William Walker and Roeland Nuyts                                              | 10/06/03    | 10/680,607 | 05/30/06    | 7,054,538  |
| 15436.1248.78.1.1 | US | FLAT DISPERSION FREQUENCY DISCRIMINATOR (FDFD)                                                                                                      | Daniel Mahgerefteh, Duncan John William Walker and Roeland Nuyts                                              | 05/26/06    | 11/441,944 |             |            |
| 15436.1248.79     | US | DISPERSION COMPENSATED LASER TRANSMITTER                                                                                                            | Daniel Mahgerefteh and Parviz Tayebati                                                                        | 07/09/02    | 60/395,161 |             |            |
| 15436.1248.79.1   | US | POWER SOURCE FOR A DISPERSION COMPENSATION FIBER OPTIC SYSTEM                                                                                       | Daniel Mahgerefteh and Parviz Tayebati                                                                        | 11/06/02    | 10/289,944 | 11/08/05    | 6,963,685  |
| 15436.1248.79.1.1 | US | POWER SOURCE FOR A DISPERSION COMPENSATION FIBER OPTIC SYSTEM                                                                                       | Daniel Mahgerefteh and Parviz Tayebati                                                                        | 02/08/05    | 11/052,945 |             |            |

## Schedule A

| WN Docket No       |        | Title                                                                                  | Inventors                                                         | Filing Date | Serial No.     | Patent Date | Patent No. |
|--------------------|--------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------|----------------|-------------|------------|
| 15436.1248.79.1.2  | US     | POWER SOURCE FOR A DISPERSION COMPENSATION FIBER OPTIC SYSTEM                          | Daniel Mahgerefteh and Parviz Tayebati                            | 11/08/05    | 11/272,100     |             |            |
| 15436.1248.79.2    | US     | HIGH-SPEED TRANSMISSION SYSTEM COMPRISING A COUPLED MULTI-CAVITY OPTICAL DISCRIMINATOR | Daniel Mahgerefteh and Parviz Tayebati                            | 12/03/02    | 10/308,522     |             |            |
| 15436.1248.79.1a   | PCT    | POWER SOURCE FOR A DISPERSION COMPENSATION FIBER OPTIC SYSTEM                          | Filed in the name of Azna Corporation                             | 11/05/03    | PCT/US03/35473 |             |            |
| 15436.1248.79.1a.1 | Canada | POWER SOURCE FOR A DISPERSION COMPENSATION FIBER OPTIC SYSTEM                          | Filed in the name of Azna Corporation Now in the name of Azna LLC | 11/05/03    | 2,510,352      |             |            |
| 15436.1248.79.1a.2 | China  | POWER SOURCE FOR A DISPERSION COMPENSATION FIBER OPTIC SYSTEM                          | Filed in the name of Azna Corporation                             | 11/05/03    | 200380108289.9 |             |            |
| 15436.1248.79.1a.3 | Japan  | POWER SOURCE FOR A DISPERSION COMPENSATION FIBER OPTIC SYSTEM                          | Filed in the name of Azna Corporation Now in the name of Azna LLC | 11/05/03    | 2004-551835    |             |            |
| 15436.1248.80      | US     | WAVELENGTH DIVISION MULTIPLEXING SOURCE USING MULTIFUNCTIONAL FILTERS                  | Daniel Mahgerefteh and Parviz Tayebati                            | 07/09/02    | 60/395,073     |             |            |
| 15436.1248.80.1    | US     | WAVELENGTH DIVISION MULTIPLEXING SOURCE USING MULTIFUNCTIONAL FILTERS                  | Daniel Mahgerefteh and Parviz Tayebati                            | 07/08/03    | 10/615,218     | 08/28/07    | 7263291    |
| 15436.1248.80.1.1  | US     | WAVELENGTH DIVISION MULTIPLEXING SOURCE USING MULTIFUNCTIONAL FILTERS                  | Daniel Mahgerefteh and Parviz Tayebati                            | 08/28/07    | 11/897,012     |             |            |