OZ Optics Limited

HIGH POWER FIBER OPTIC COMPONENTS

June 2019
Company Profile

- Company founded in 1985;
- Corporate headquarters located in Ottawa, Canada;
- Manufacturing facility in Ottawa/Canada, Izmir/Turkey, and Jiaxing/China
- Seven Product Groups: Laser-to-Fiber Delivery Systems, High Power Fiber Optic Components, Polarization Maintaining Products, Attenuators, Opto-Electronic Packaging, Test Equipment, Fiber Optic Sensor Systems
- Sales offices in Canada, USA, Europe, Turkey, and China
Company Profile

- Three Product Groups:
  - Fiber Optic Components 70%
  - Optical Test Equipment 25%
  - Fiber Optic Sensors 5%

- Over 1,000 products
- Leading Edge R&D
OZ Optics Products

Global Leader in Fiber Optic Products since 1985

Polarization Maintaining Fiber Optic Components

Polarization Maintaining Connectors / Patchcords
Polarization Maintaining and Polarizing Splitters / Combines / Fused Couplers / Switches
All Fiber Manual and Electrically Driven Polarization Controllers / Scramblers
PM Fiber Directional Taps / Power Monitors
Manual / Electrically Controlled PM Fiber Pigtailed Variable Attenuators
Fiber Pigtailed Polarizers
PLC Splitters
PM Fiber Pigtailed Circulators

High Power Fiber Optic Components

High Power Fiber Optic Components

High Power/Temperature Connectors & Patchcords
High Power Isolators
High Power Laser to Fiber Couplers / Collimators / Focusers
High Power Mode Field Adapters
High Power Optical Taps / Power Monitors
CO2 Cleaning for High Power Components
High Power Splitters / WDMs
Switches / Reopticles / Sleeve Trans Adapters with Sensors

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OZ Optics Products

Global Leader in Fiber Optic Products since 1986

Fiber Optic Attenuators for SM, PM, and MM Fibers

- Digital Variable Attenuators
- Electrically Controlled Variable Attenuators
- MEMS Variable Attenuators
- SM / PM / MM Fiber Pigtailed Inline Variable Attenuators
- Single/Multi Channel Miniature Variable Attenuators
- Reflective Style Variable Attenuators
- Air Gap Variable Attenuators
- Plug Type Fixed Attenuators
- Attenuating Fiber Patchcords

Laser & Laser Diode to Fiber Delivery Systems

- Laser to Fiber Couplers
- Bare Fiber Adapters with Magnetic Clips
- Bulkhead Receptacles
- Pigtail/Receptacle Style High/Low Power Collimators/Focusers
- High/Low Power Patchcords
- WDM/RGB Combiners
- OTDR Modules and 2 meter Components
- OTM Laser Diode to Fiber Couplers
- Turnkey Ultra Stable Laser Modules
Product Innovation

Fiber Optic Distributed Strain and Temperature Sensors

- BOTDA only, BOTDR only, or both BOTDA and BOTDR modules in one unit
- Simultaneous measurement of strain and temperature
- Fast, dynamic measurement of strain and/or temperature up to 100 km sensing range
- Uses standard telecommunication fiber to minimize costs

Fiber Optic Fault Finder for Optical Network Safeguard™

- Monitors and reports network health status in real time, 24 hours/day, 365 days/year
- REDuces revenue loss due to fiber plant outages
- Reports fault location, giving GPS coordinates with time stamp
- Lowers network operation and maintenance expenses
- User friendly interface via various wireless interfaces (WiFi, GPRS, 3G, or RS-232)
- Early alert and outage reports via cellular phone, email, IM, SMS, or text messaging

OZ Guard Automated Test Solution

Remote Monitoring a WDM Network

Remotely Accessible Wireless Fault Finders

GPS Locator

OZ Optics

www.ozoptics.com

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Product Innovation

New Products, OCT Products, 2 Micron Products

Optical Signal to Noise Ratio Generator
Broadband Polarization-Entangled Photon Source
OCT Modules
2 Micron Fused Couplers / Taps / Splitters / Combiners
Modulator Bias Controller
Broadband Variable Attenuators for OCT Applications
2 Micron Fiber Pigtailed Laser Diode Sources

OZ Optics

shop.ozoptics.com
www.ozoptics.com

Global Leader in Fiber Optic Components since 1985
Company Profile

Over 498 employees worldwide:

- 277 in Ottawa and US
- 71 in Turkey
- 150 in China
OZ Optics is lead by an experienced team:

- Ömür Sezerman, Chairman, President & CEO
  - Founder and CEO since inception (34 years)
- Zahide Sezerman, VP of Human Resources
  - With OZ Optics since inception (34 years)
- Garland Best, VP of Components Division
  - 27 years at OZ Optics
- Gordon Youle, VP of Test Equipment Division
  - 20 years at OZ Optics
- Martin Powell, Operation Manager
  - 15 years at OZ Optics
- Metin Sezerman, General Manager of OZ Turkey
  - 18 years at OZ Optics
- Bing Li, General Manager of OZ Optics China
  - 15 years at OZ Optics
Company Profile

- ISO 9001:2015 certified
- Broad patent portfolio
- Advanced proprietary processing technology
Company Profile

- Using our strong direct sales and distributors, we address the following markets:
Company Profile

- OZ Optics has resellers and distributors in over 30 Countries & Regions and over 10,000 customers globally:

  - Australia
  - Austria
  - Belgium
  - Brazil
  - Canada
  - China
  - Czech Republic
  - Denmark
  - France
  - Germany
  - Greece
  - Hong Kong
  - India
  - Ireland
  - Israel
  - Italy
  - Japan
  - Netherlands
  - Luxembourg
  - Norway
  - Poland
  - Portugal
  - Singapore
  - South Korea
  - Spain
  - Switzerland
  - Sweden
  - Taiwan
  - Thailand
  - Turkey
  - United Kingdom
  - United States
In-House Production Capabilities

- Experienced and well-trained staff in following fields:
  - optical, mechanical, electronics & software

- CNC Machine Shop
- AR Coating
- Femtosecond Laser Lab
- Clean Room
- Laser Conditioning/Cleaving
Branch Network

OZ OPTICS CANADA (Headquarters)

OZ OPTICS TR (Turkey Factory)

OZ OPTICS CHINA (Jiaxing Factory)
Facility – Ottawa Headquarters

- 60,000 sq ft. – Manufacturing and R&D Facilities
- 15,000 sq ft. – Admin, Sales and Marketing
- 15,000 sq ft. – Training and Fitness Facility
- R&D, Product Design, Engineering, Final Assembly & QA
Facility – Ottawa Headquarters

Production Area

Training Centre Building

Meeting Room

Swimming Pool
OZ Optics – Turkey Factory

- Operational since 2000
- 33,000 sq ft. Manufacturing Facility
- Located in Free Trade Zone
- Low Tax Rates
- Sub Component Parts Manufacturing
- Cost Effective Manufacturing
- High Quality Labor
OZ Optics China

- Operational since 2009
- Wholly Foreign Owned Enterprise
- Subcomponent Parts Manufacturing
- Cost Effective Manufacturing
- High Quality Labor
- Extensive Training (3-6 months in OZ Canada)
OZ China Facility

Jiaxing, China

- Located in Economic Development Zone
- 500 sq meters – Admin, Sales and Marketing
- 1500 sq meters – Manufacturing Area
  - 100 sq meters – Class 10,000 Clean Room
  - 100 sq meters – ESD Working Area
Manufacturing Strategy

OZ Canada

R&D Design Engineering

Customer

Made-in China

Sub-Components

World-Wide Sourcing

Made-in Turkey

OZ Canada

Final Assembly Quality Assurance

Customer

Sub-Components

Sub-Components

Customer Qualification

Customer Qualification

OZ CND Qualification

OZ CND Qualification
Industry Standards

All products manufactured are in strict accordance with international industry standards:

- Qualified for F35 JSF and F18 Program
- Telecordia Compliance
- CE Compliance
- RoHS Compliance
- ISO 9001:2015 Certified (Canada, China and Turkey)
- Controlled Goods Directorate Registered
Core Competencies

- Pioneer in Polarization Maintaining (PM) Components
- Leader in Wavelength Flattened, High Power & Low PDL Components
- Leader in High Power Fiber Optic Delivery Systems
- Custom Test Equipment, Including Polarization Test Equipment and FTTH Equipment
- Widest Range in Attenuator Product Offering
- Fiber Optic Distributed Strain and Temperature Sensors
- Complete product line for OCT applications & 2 Micron
- Now available: Bias Controllers, Spectrometers, Optical Noise Generators and Broadband Polarization-Entangled Photon Source
Leading Technology

- High Power Isolators
  - power handling > 50W
  - low loss, low cost
  - turnkey solution

- Pioneer in Polarization Maintaining (PM) Components
  - wavelength flattened
  - high power & low PDL
  - PM test equipment

- Leader in High Power Fiber Optic Delivery Systems
  - specializes in custom design

- Fiber Optic Sensor
  - fast and simultaneous measurement of strain & temp
  - large structure health monitoring

High Power Free Space and Pigtailed Isolators
Polarization Maintaining Patchcords
Distributed Stain and Temperature Sensors
High Power Collimators/Focusers
OUR VISION
- Be the preferred Supplier of choice
- Capture and expand market share
- Maximize shareholder value

OUR MISSION
- To become the leading provider of innovative optical products to telecom and non-telecom sectors

OUR CORE VALUES
- Leadership
- Teamwork
- Boldness
- Commitment
- Innovation
- Rewards

OUR QUALITY POLICY
- Provide our Customers with a competitive advantage, leveraging performance, price and delivery, through a continuous process of Quality advancement in all areas of our Company
- Communicate effectively to our Customers, Suppliers and Shareholders our commitment to Quality, continuous improvement and to abide by any applicable requirements
- Promote opportunities of professional development for all members of our Company through education, training and personal challenge

Ömür Sezerman
President
Competitive Advantage

- Superior Technology
- Innovative Engineering
- Exceptional Quality & Service
- Competitive Pricing
- Extensive Experience in Fiber Optics Manufacturing
- Global Presence
- Success
Clean Room for High Power Manufacturing Components
Fusion Splicer for End Capping
Laser Cleaving System
High Power Inspection Station
High Power Gluing Station for Patchcords
Fusion Splicer, Cleaver and Glass Processing System with PM Rotation
High Power AR Coating Machine
Laser Conditioning Station
High Power Patchcords And Connectors

- Able To Transmit Over 100W Of Optical Power
- Operating Wavelengths From 200nm To 2000nm
- PMF, SMF, And MMF High Power AR Coatings
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OZPEN™ CO₂ Fiber Optic Cleaning Unit

- Superior removal of contaminants on fiber optics and other components
- Quick and dry solvent free cleaning process
- Cleans variety of substrates
- Designed to clean small surface area
- Ideal for high power applications
High Power Collimators/Focusers

- Up to 100 Watts CW Power Handling
- Available for 180nm to 2000nm Wavelengths
- Receptacle and Pigtailed Versions
Fused High Power Fiber Collimators

- No air-glass interfaces for maximum power handling
- Over 1 kW power handling
- Singlemode, multimode, polarization maintaining and large mode area fiber versions available
High Power Fiber Pigtailed Isolators

- Low Insertion Loss, Up to 100 Watts
- Available From 400 - 2000nm
- Polarization Independent, High Isolation
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- Available From 400 - 2000nm
- Polarization Independent, High Isolation
Mode Field Adapter

- High Power Handling
- Adapts and conserves modal content
- Singlemode and Polarization Maintaining Versions
- Custom designs available
High Power Directional Taps/Power Monitors

- Up to 10 Watts Power Handling
- SM, PM and Specialty Fiber Versions, including Photonic Crystal Fiber
- Available for 320nm to 2000nm Wavelengths
High Power Shutters/Bulkhead Receptacles With Safety Interlocks

- Multiple Watts CW Power Handling
- Shutter Speed of < 5 msec
- Temperature, Contact or Proximity Sensors for Safety Interlock
- SMA 905 or FC Receptacles
High Power Shutters/Bulkhead Receptacles With Safety Interlocks

- Multiple Watts CW Power Handling
- Shutter Speed of < 5 msec
- Temperature, Contact or Proximity Sensors for Safety Interlock
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Laser To Fiber Coupler With Shutters

- Laser To Fiber Coupler With Shutters
- >60% Coupling Efficiency For SMF & PMF
- Up To 3 Watts Optical Power Handling
- Ideal For Safety Interlocks, Remote Control
High Power Wavelength Division Multiplexer

- 0.8dB Insertion Losses, 65dB Isolation
- Up To 2 Watt Power Handling
- -40dB, -50dB, -60dB Backreflection

NEW
High Power Wavelength Division Multiplexer

- 0.8dB Insertion Losses, 65dB Isolation
- Up To 200 Watt Power Handling
- -40dB, -50dB, -60dB Backreflection

NEW
High Power Antireflection (AR) And Highly Reflective (HR) Coated Fiber Ends

- HR, R>98%, AR < 0.3%
- 350nm To 2000nm Wavelength Coatings
- SMF, MMF & PMF Versions
High Power Optical Coatings

- High Power AR, Beamsplitter, Dichroic Coatings
- Fibers, Micro Optics, Lenses, Plates, Prisms Etc.
- Low Temperature High Abrasion Resistant Coatings
Your solution provider for existing and next generation fiber optic components and test equipment

Please Contact Our Sales Dept:
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Thank You for Choosing OZ!