

# **Fiber Optic Components for BioPhotonics Applications**

## **OZ Optics Limited**

**September 2024**

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- OZ Optics Canada
- OZ Optics Türkiye
- OZ Optics China



# Company Background



- **Founded in 1985**
- **Corporate Headquarter Located in Ottawa, Canada**
- **Manufacturing Facility in  
Ottawa / Canada, Izmir / Türkiye and Jiaxing / China**
- **Ten Product Groups:**
  - Laser-to-Fiber Delivery Systems
  - High Power Fiber Optic Components
  - Polarization Maintaining Products
  - Attenuators
  - Opto-Electronic Packaging
  - Fiber Optic Test Equipment
  - Fiber Optic Sensor Systems
  - Fiber Optics Components for Gyroscope
  - OCT
  - BioPhotonics
  - Quantum
- **Sales Offices in  
Canada, USA, Europe, Türkiye and China**

## ➤ Ottawa, Canada



## ➤ Izmir, Türkiye



## ➤ Jiaxing, China





# Corporate Statements and Quality Policy



## Our Vision

- ✓ Capture and expand market share
- ✓ Be the preferred supplier of choice
- ✓ 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
- ✓ Commitments
- ✓ 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.





# Company Profile

## Over 467 employees worldwide

OZ Canada



**243+**  
Employees

OZ China



**87+**  
Employees

OZ Türkiye



**137+**  
Employees



# Company Profile



**Advanced Proprietary  
Processing Technology**



**Canada**  
Certificate: FM 63463



**China**  
Certificate: FM 577647



**Turkey**  
Certificate: FM 601414

**ISO9001:2015 Certified**



**Broad Patent Portfolio**





# Company Profile

## OZ Optics is Lead by an Experienced Team:

- **Ömür Sezerman, Chairman, President & CEO**
  - Founder and CEO since inception (40 years)
- **Zahide Sezerman, VP of Human Resources**
  - With OZ Optics since inception (40 years)
- **Garland Best, VP of Components Division**
  - 33 years at OZ Optics
- **Gordon Youle, VP of Test Equipment Division**
  - 26 years at OZ Optics
- **Saeed Pilevar, Senior VP of Business Development**
  - 3 months at OZ Optics
- **Onur Koca, General Manager of OZ Türkiye**
  - 3 year at OZ Optics
- **Bing Li, General Manager of OZ Optics China**
  - 21 years at OZ Optics





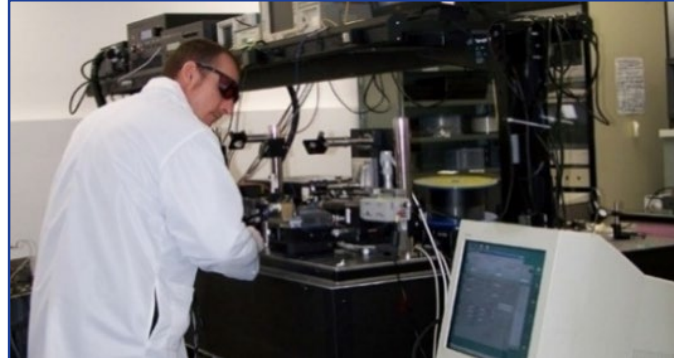
# Company Profile

**Experienced and Well-Trained Staff in Following Fields:  
Optical, Mechanical, Electronics & Software**

## CNC Machine Shop



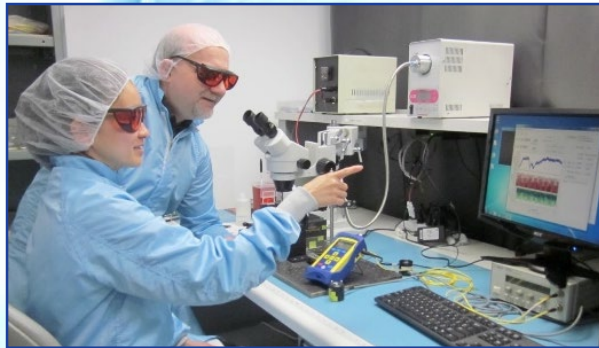
## Femto-Second Laser Lab



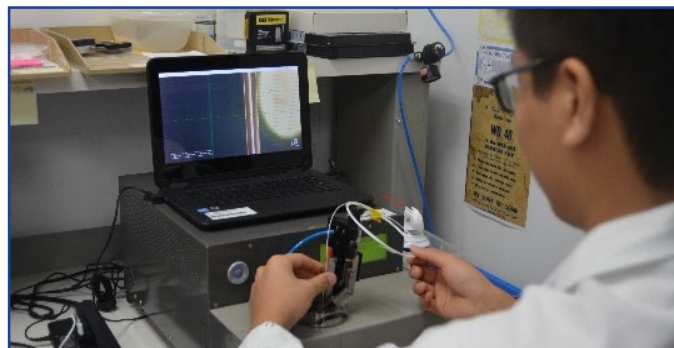
## AR Coating



## Clean Room



## Laser Conditioning / Cleaving





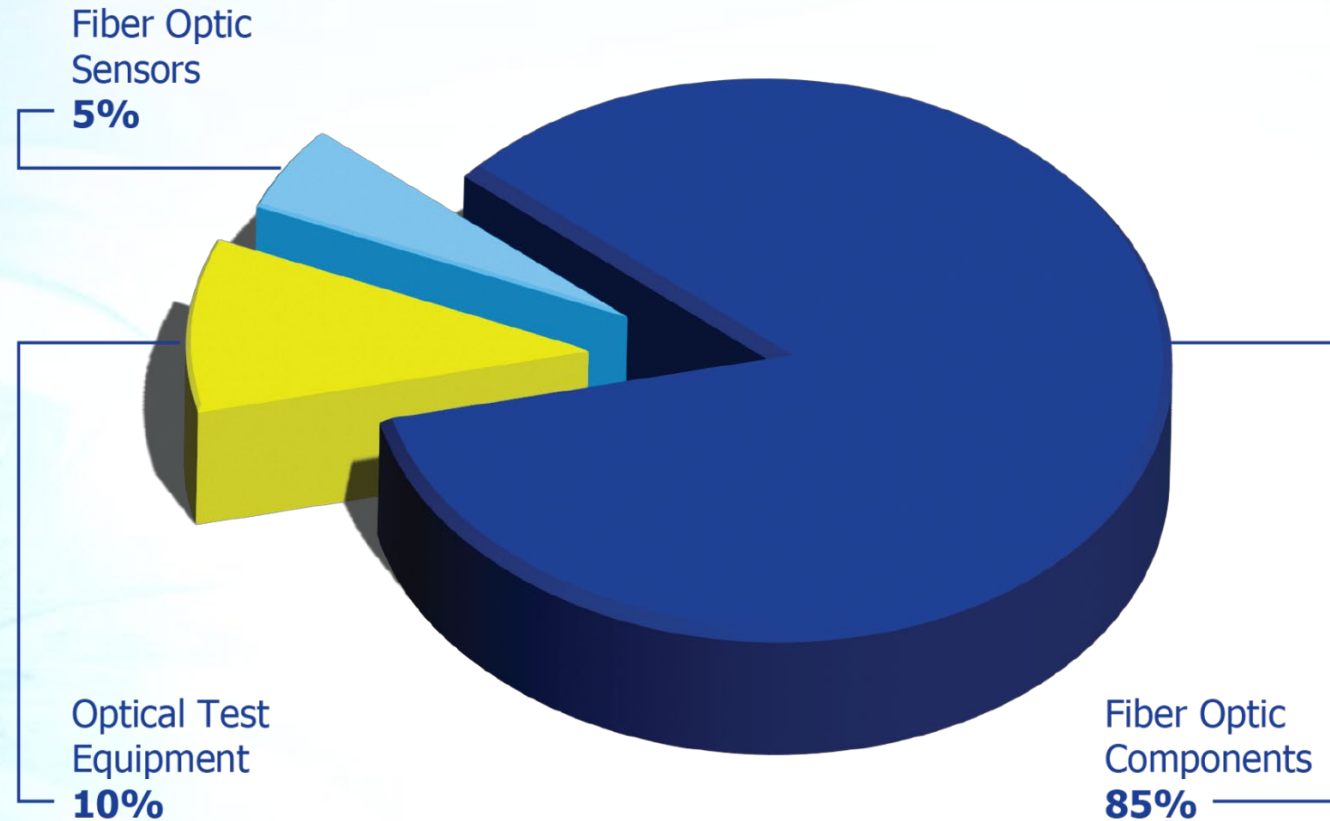
# Core Competencies

- **Pioneer in Polarization Maintaining (PM) Components & Custom Test Equipment, Including Polarization Test Equipment and FTTH Equipment**
- **Leader in Wavelength Flattened, High Power & Low PDL Components**
- **Leader in High Power Fiber Optic Delivery Systems**
- **Widest Range in Attenuator Product Offering**
- **Fiber Optic Distributed Strain and Temperature Sensors**
- **Complete product line for OCT, Gyroscope & BioPhotonics applications & 2 Micron**
- **Now available: Spectrometers and Quantum Light Sources**



# Leading Technology

➤ **Three Product Groups** ➤ **Over 1,000 Products** ➤ **Leading Edge R&D**







# Leading Technology

## Featured Products



### World's Largest Online Fiber Optic Catalog

Most Products are in Stock



### Polarization Maintaining Fiber Optic Components

Patent Numbers: USA 7058275, 7095931, 7295731, China 1672073

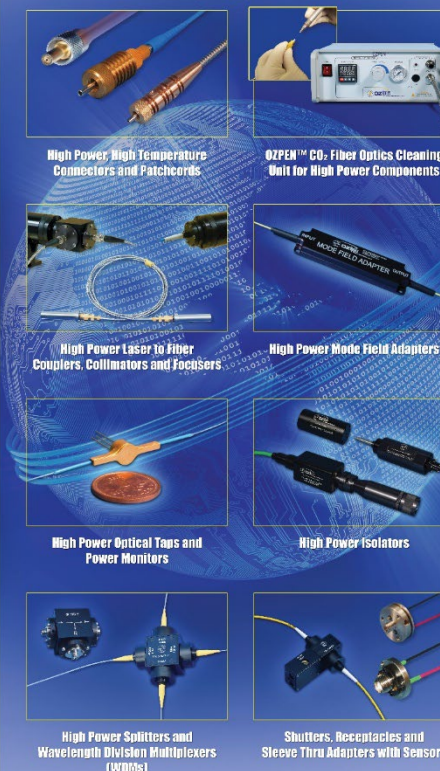


### Laser and Laser Diode to Fiber Delivery Systems



### High Power Fiber Optic Components

Patent Numbers: Canada 2494133, USA 7058275, 7095931, 7295731, China 1672073







# Leading Technology

## Featured Products



### Fiber Optic Attenuators

Polarization Maintaining, Single Mode and Multi-Mode Fibers



Benchtop Digital



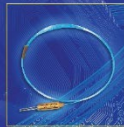
Variable Attenuators



Digital Variable Attenuators



Electrically Controlled Variable Attenuators



MEMS Variable Attenuators



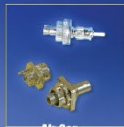
PM, SM and MM Fibers Pigtailed Inline Variable Attenuators



Single and Multi Channel Miniature Variable Attenuators



Reflective Style Variable Attenuators



Air Gap Variable Attenuators



Plug Type Fixed Attenuators



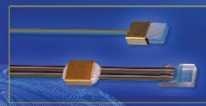
Attenuating Fiber Patchcords

### Fiber Optic Components for Optoelectronic Packaging

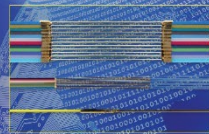
Hermetically Sealable Patchcords with Glass or Metal Solder



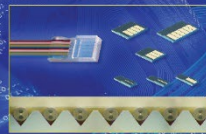
Single Channel



Multi Channel



Metalized Fibers



PM, SM and MM Fiber Pigtailed V-Groove Arrays



Polarization Measurement System for V-Grooves



Tapered, Lensed Fiber, Polished and Laser Shaped



Precision Collimator and Focuser Array

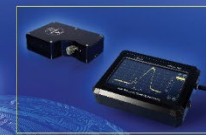


Fused Fiber Collimator

### Fiber Optic Test Equipment



Quantum Entangled Photons Sources



High-Resolution Optical Spectrometers



Optical Fiber Length Meters



Back Reflection Meters



High-Speed Polarization Controller-Scrambler



Handheld and Benchtop Extinction Ratio Measurement Systems



Multichannel, Benchtop and Handheld Digital Variable Attenuators



High Power Visual Fault Locators



Powermeters with Smart Detector Heads

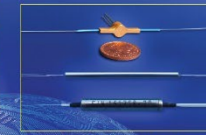


Laser Diode Stable Sources

### Fiber Optic Components for 2 Micron Wavelengths



Fiber Optic Patchcords



Fused Couplers, Taps, Beam Splitters and Combiners



Fiber Pigtailed Laser Diode Sources



Pigtailed, Receptacle Style Collimators and Focusers



High Speed Electro-Optic Polarization Controllers and Scramblers



Manual and Electrically Controlled Variable Attenuators



Polarizers



Isolators





# Leading Technology

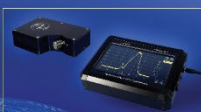
## Featured Products



### New Fiber Optic Products



Polarization Entangled  
Photon Sources



High-Resolution  
Optical Spectrometers



High Speed Electro-Optic Polarization  
Controllers and Scramblers



Polarization Entanglement  
Tomography Analyzers



Fiber Optic Coils  
for Gyroscopes



Universal Optical DNA Rapid  
Detection Systems for Pathogens



Motor Driven Polarization  
Dependent Loss Emulators



Detector Heads and  
Optical Power Monitors



### Fiber Optic Products for Gyroscopes



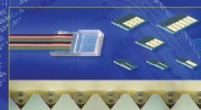
Fiber Optic Coils  
for Gyroscopes



ASE Sources



Wavelength Division  
Multiplexers



PM, SM and MM Fiber Pigtailed  
V-Groove Arrays



Fused Couplers, Taps,  
Beam Splitters and Combiners



Fiber Optic Polarizers



Fiber Optic  
Patchcords



SM and PM Fiber  
Pigtailed Circulators



Isolators

### Quantum Entangled Photons Sources



Hyper-Entangled Photon Source  
Broadband Telecom



Polarization-Entangled Photon Source  
Broadband Telecom



Bright Polarization-Entangled Photon  
Source Broadband Telecom



Bright Polarization-Entangled Photon  
Source Narrowband Telecom



Correlated Photon Pair Sources



Polarization-Entangled Photon Source  
Narrowband at 610 nm



Polarization Entanglement  
Tomography Analyzer

### Fiber Optic Products for OCT Applications



OCT Modules



Manual and Electrically Controlled  
Broadband Variable Attenuators



Manual and Electrically Controlled  
Fiber Optic Delay Lines



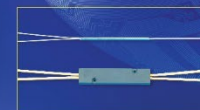
Manual and Electrically Controlled  
Polarization Controllers / Scramblers



Fiber Pigtailed  
Broadband SLED Sources



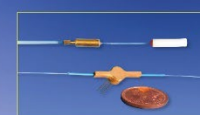
Fiber Collimators / Focusers



Broadband Fused Couplers



SM and PM Fiber  
Pigtailed Circulators







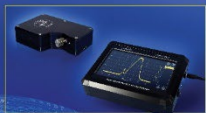
# Leading Technology

## Featured Products

### Fiber Optic Products for Biophotonics Applications



Universal Optical DNA Rapid Detection Systems for Pathogens



High-Resolution Optical Spectrometers



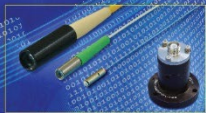
Fiber to Photodiode Couplers with Removable Filters



High and Low Power Patchcords



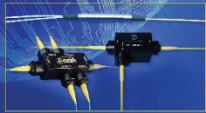
High Power Laser to Fiber Couplers



Pigtails, Receptacle Style Collimators and Focusers



Fiber Optic U-Bracket Assemblies



Wavelength Division Multiplexers and Beam Splitters



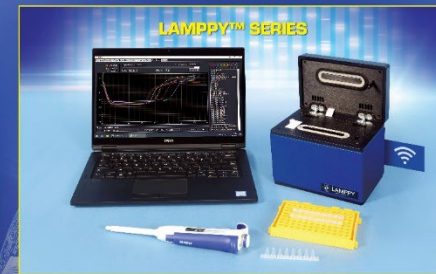
Turnkey, Ultra Stable Laser Modules



Pocket Optical Power Meter and Detectors

### Universal Optical DNA Rapid Detection System

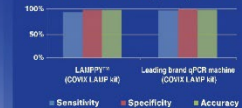
For Pathogens Including:  
COVID-19, SARS, EBOLA, CHOLERA, SALMONELLA, ETC.



#### Features:

- Use to detect viral, fungal, and bacterial DNA/RNA
- Rapid DNA/RNA detection (as little as 20 minutes)
- Highly sensitive and specific detection of low viral levels
- Intuitive software displays real time data during testing
- Melt analysis available with the included software
- Lid heater prevents evaporation and condensation
- Compact modular design allows for easy cleaning and maintenance
- Pair with an external battery for a portable and field-deployable system
- Test up to 8 samples simultaneously (higher throughput systems with up to 96 samples available upon request)
- Wireless communication with dual-band Wi-Fi and Bluetooth connectivity
- A fraction of the cost of qPCR based systems
- OZ Optics also offers private labelling for volume OEM applications

Clinical trial: LAMPYY™ vs. Leading brand qPCR machine

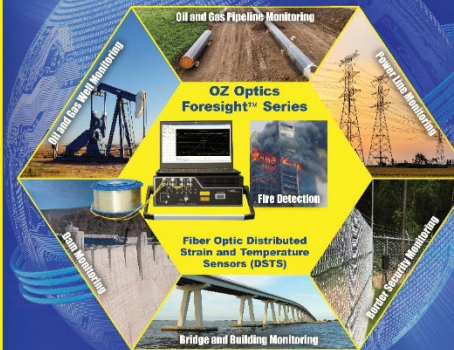


In a lab study done at Acibadem University using saliva samples taken from patients at the Acibadem Hospitals, LAMPYY was compared to a well-known conventional qPCR machine in performance and speed. The comparison study was carried out with a sample size of 262 using the COVIX LAMP-based kit on both instruments and then verified with the KrosQuant SARS-CoV-2 (2019 nCoV) Real Time PCR Diagnostic Kit on a leading brand conventional qPCR machine.

### Fiber Optic Distributed Strain and Temperature Sensors

USA Patent Numbers: 7499151, 7599047, and 9568307

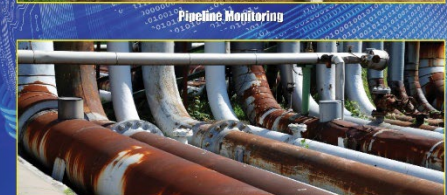
- BOTDA only, BOTDR only, or both BOTDA and BOTDR modules in one unit
- Simultaneous measurement of strain and temperature
- Fast, dynamic measurement of strain and/or temperature up to 200 km sensing range
- Uses standard telecommunications fibers to minimize costs



### Fiber Optic Sensors for Pipeline Monitoring

USA Patent Numbers: 7499151, 7599047, and 9568307

- Pipeline leakage detection
- Sensitive detection of corrosion / erosion, cracks and buckling
- 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 200 km sensing range
- Uses standard telecommunication fiber to minimize costs



Corrosion and Erosion Monitoring



Fire Detection





# Leading Technology

## Featured Products



### Fiber Optic Sensors for Fire Detection

USA Patent Numbers: 7499151, 7599047, and 9568307

- 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 200 km sensing range
- Uses standard telecommunications fiber to minimize costs



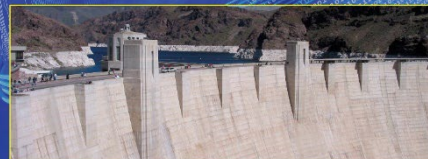
### Fiber Optic Sensors for Bridges, Dams and Buildings

USA Patent Numbers: 7499151, 7599047, and 9568307

- 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 200 km sensing range
- Uses standard telecommunications fibers to minimize costs



Bridge Monitoring



Dam Monitoring



Building Fire Detection

### Fiber Optic Sensors for Power Line and Smart Power Generator Monitoring

USA Patent Numbers: 7499151, 7599047, and 9568307

- 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 200 km sensing range
- Uses standard telecommunication fiber to minimize costs



Underground Power Line Monitoring



Power Line Monitoring



Optical Ground Wire (OPGW)



Construction of OPGW



Gas Generator Monitoring

### Fiber Optic Sensors for Security Monitoring

USA Patent Numbers: 7499151, 7599047, and 9568307

- 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 200 km sensing range
- Uses standard telecommunication fiber to minimize costs



Border Security Monitoring



Highway Health Monitoring



# **Industry Standards**

**All Products Manufactured are in Strict Accordance with International Industry Standards:**

- **ISO 9001:2015 Certified (Canada, China and Türkiye)**
- **REACH Compliance**
- **RoHS Compliance**
- **CE Compliance**
- **Telecordia Compliance**
- **Controlled Goods Directorate Registered**
- **Critical Supplier for F35 and F18 Project**
- **TSCA (Toxic Substance Control Act) Compliance**
- **CHEMSHERPA Compliance**
- **IEC 61010 Compliance**





# Marketing Strategy

## Application Market

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

- **Energy – Oil and Gas**
- **Military and Homeland Security**
- **Educational**
- **Industrial**
- **Telecom / Datacom**
- **Medical & Pharmaceutical**





# Marketing Strategy

## Application Market

By leveraging the technology and expertise gained since its inception, OZ Optics has attracted a broad range of customers in the telecom / datacom, medical, military, security, industrial, construction, aerospace, power utilities, petrochemical and educational sectors.







# Marketing Strategy

## Global Sales Network

OZ Optics has resellers and distributors in over 30 Countries and Regions with over 10,000 customers worldwide:



Austria



Germany



Luxembourg



Sweden



Belgium



Greece



Netherlands



Switzerland



Brazil



Hong Kong



Norway



Taiwan



Canada



India



Poland



Thailand



China



Ireland



Portugal



Türkiye



Denmark



Italy



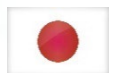
Singapore



United Kingdom



France



Japan



South Korea



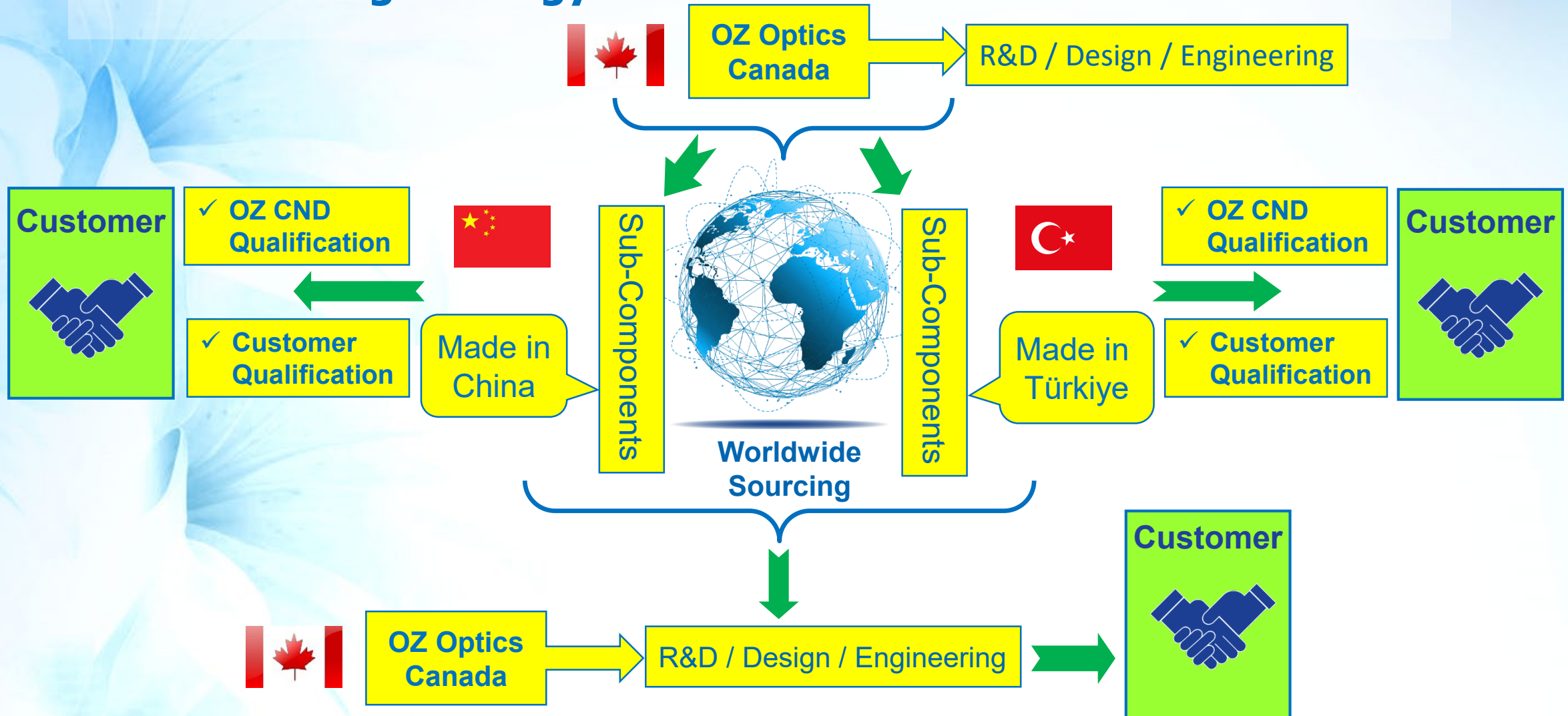
United States





# Operation Strategy

## Manufacturing Strategy





# Marketing & Operation Strategy

## Competitive Advantage

- Superior Technology  
Innovative Engineering
- Competitive Pricing
- Global Presence
- Extensive Experience  
In Fiber Optics Manufacturing
- Exceptional Quality and Service





# Branch Network



**OZ OPTICS CANADA** (Headquarters)



**OZ OPTICS TÜRKİYE** (Türkiye Factory)



**OZ OPTICS CHINA** (Jiaxing Factory)





# Branch Network

## Facility - Ottawa Headquarters

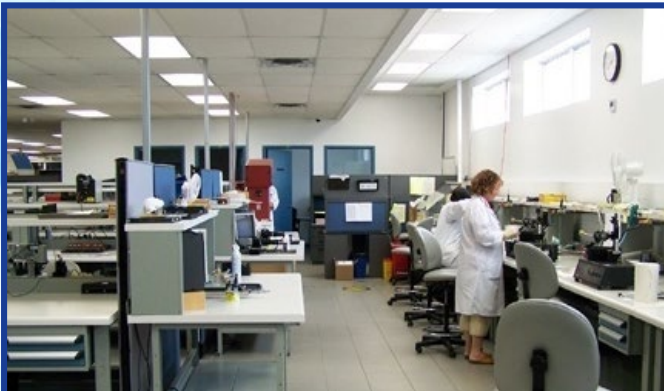
- 60,000 sq ft. - Manufacturing and R&D Facilities
- 15,000 sq ft. - Admin, Sales and Marketing
- 15,000 sq ft. - Training and Fitness Facilities





# Branch Network

## Facility - Ottawa Headquarters



**Production Area**



**Training Centre Building**



**Meeting Room**



**Swimming Pool**





# Branch Network

## Facility - Türkiye Factory (Izmir, Türkiye)

- Operational Since 2000
- 33,000 sq ft. Manufacturing Facility
- Located in Free Trade Zone
- Low Tax Rates
- Sub Component Parts Manufacturing
- High Quality Labor
- AR Coating Machine & Clean Room onsite





# Branch Network

## Facility - China Factory (Jiaxing, China)

- Operational Since June 2010
- Wholly Foreign Owned Enterprise
- Cost Effective Manufacturing
- High Quality Labor
- Supply Chain Integration







# Branch Network

## Facility - China Factory (Jiaxing, China)

- Located in Economic Development Zone
- 4000+ sq meters - Total Area
  - 500 sq meters – Administration, Sales and Marketing
  - 3500 sq meters – Manufacturing Area
    - ✓ 500 sq meter – Class 10,000 Clean Room
    - ✓ 300 sq meter – ESD Working Area





# OZ Optics China

Zhejiang OZ Optics Technologies Co., Ltd



- Operational since June 2010
- Wholly Foreign Owned Enterprise
- NPI & Production Line Setup
- On-site Training by OZ CND
- Began Mass Production in September 2010
- Completed Main Facility Expansion in 2019







# LAMPPY

## DTS0177 - Universal Optical DNA Rapid Detection System for Pathogens

- Can detect COVID-19, SARS, Ebola, Cholera, Salmonella, Etc.
- Rapid DNA/RNA detection (<20 Min)
- Highly sensitive and specific detection of low viral levels
- Intuitive software displays real-time data during testing
- Melt analysis available



DTS0177 – Universal Optical DNA Rapid Detection System for Pathogens



# LAMP

## DTS0177 - Universal Optical DNA Rapid Detection System for Pathogens

- Compact Modular Design
- Pair with an external battery for a portable and field deployable system
- Test up to 8 Samples Simultaneously
- A Fraction of the Cost of qPCR Based Systems
- Compatible with Standard PCR Tubes: Corning Axygen 0.1mL Low Profile Luna Nanotech MPPCRF-8W 0.1mL



DTS0177 – Universal Optical DNA Rapid Detection System for Pathogens





# SPECTROMETER

## DTS0193 - High-Resolution Optical Spectrometers

- Transmission grating to realize unprecedented high sensitivity
- Optimized optics with high pixel density enabling outstanding resolution
- Optics allow fast sampling rates and high signal-to-noise ratios
- Band-pass filters suppress higher order noise on the detection side
- Applications: Ranging from smart farming to pharmaceutical analysis
- Rugged



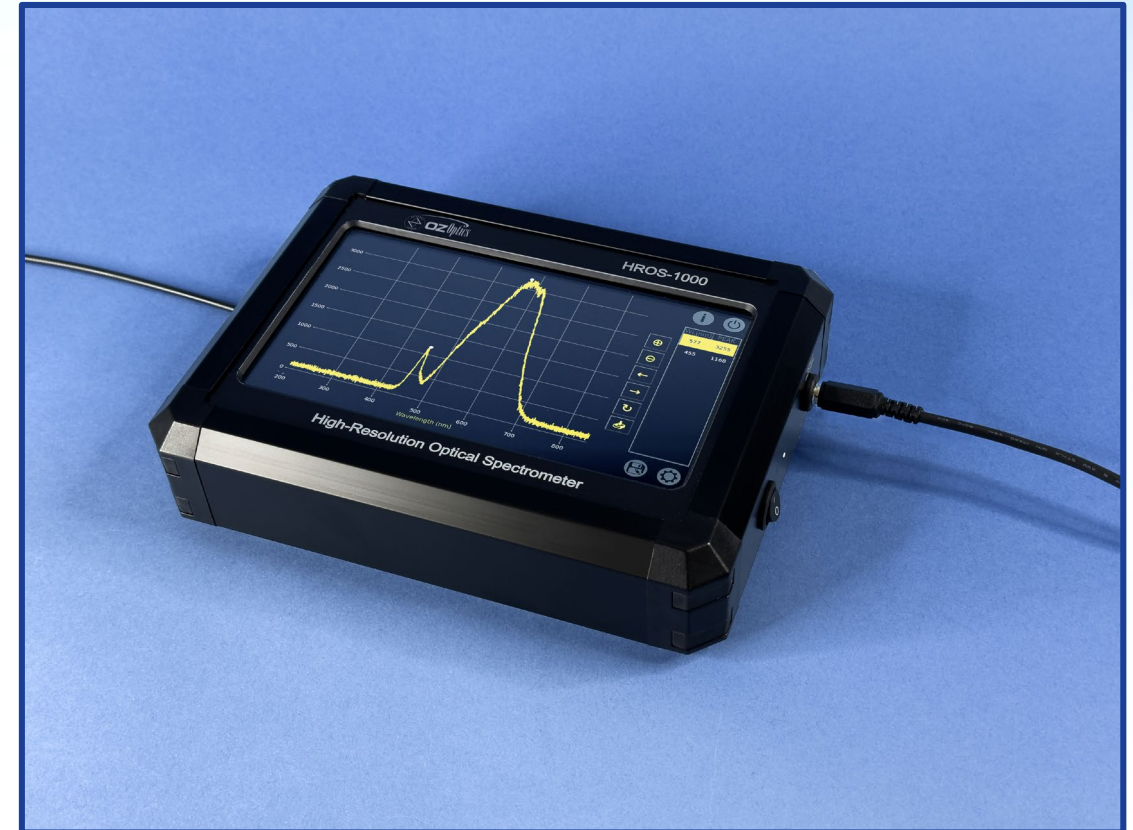
DTS0193 – High-Resolution Optical Spectrometers



# SPECTROMETER

## DTS0193 - High-Resolution Optical Spectrometers

- Integrable and compact device that can be remotely controlled via serial communication
- Built-in optical attenuator to cover a wide range of intensity levels for modern and commercial applications
- Fiber collimators, focusers and wave division multiplexors are offered as accessories



DTS0193 – High-Resolution Optical Spectrometers

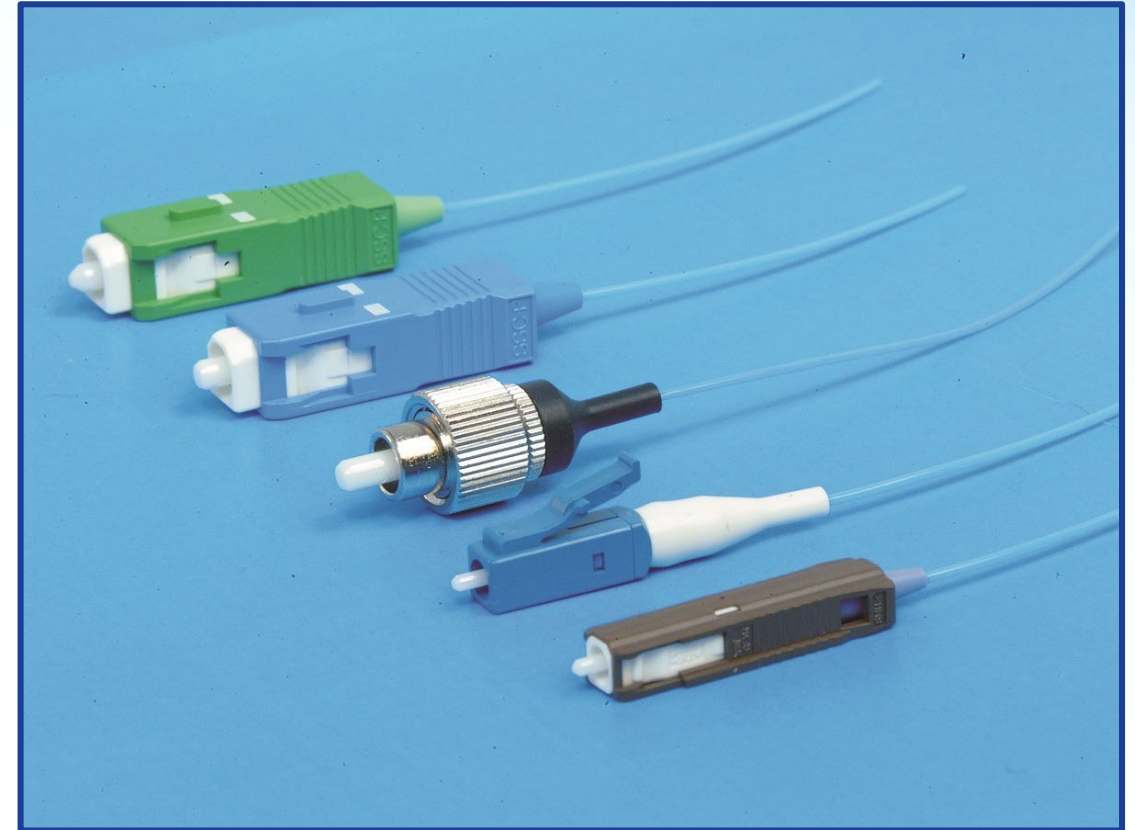




# Polarization Maintaining Patchcords

## DTS0071: Polarization Maintaining Fiber Patchcords and Connectors

- Up to 30dB Polarization Extinction Ratios
- $<0.3\text{dB}$  Insertion Loss, Up to 60dB Backreflection
- FC/SPC, FC/UPC, FC/APC, SC, ST, LC, MU, E2000, DMI and Custom Connectors



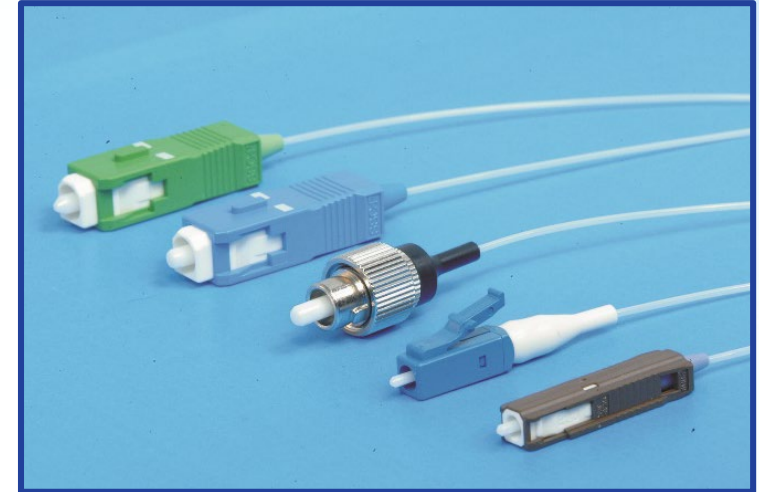
DTS0071 - Polarization Maintaining Fiber Patchcords and Connectors



# Singlemode or Multimode Fiber Optic Patchcords

## DTS0130: Singlemode or Multimode Fiber Optic Patchcords

- Low insertion loss  $< 0.2$  dB
- Excellent repeatability
- FC/PC, SC, ST, LC, MU, E2000 termination available
- Custom ferrule termination available
- Designed to meet Telcordia specification
- Large selection of cabling
- Operating wavelengths from 200 nm to 2000 nm
- Two micron to 1500 micron diameter core sizes available



DTS0130 – singlemode or Multimode Fiber Optic Patchcords





# Laser & Laser Diode to Fiber Delivery Components

- OZ Optics provides high quality, competitively priced fiber optic products based on a patented tilt alignment technique.
- Our products include a laser to fiber coupler with adjustable focus which allows >80% coupling into a singlemode fiber
- Products include:
  - Turn-key laser diode sources
  - Laser to fiber couplers
  - Collimators and Focusers



# Laser to Fiber Couplers

## DTS0049 and DTS0062: Laser to Fiber Coupler with Receptacle (Non-Contact style) and Pigtail Style Laser to Fiber Couplers

- 60% coupling efficiency for SMF & PMF
- Low / High power versions  $>10$  W
- 240 nm to 2200 nm wavelengths available
- FC receptacle shown, SMA, LC, SC, ST available



DTS0049 – Laser to Fiber Coupler with Receptacle (Non-Contact style)



DTS0062 – Pigtail Style Laser to Fiber Couplers



# Laser to Fiber Couplers with Adjustable Focus

## DTS0047: Laser to fiber Coupler with Adjustable Focus

- 80% coupling efficiency for SMF & PMF
- SMF, MMF & PMF versions
- 0.1 micron resolution in focus adjustment



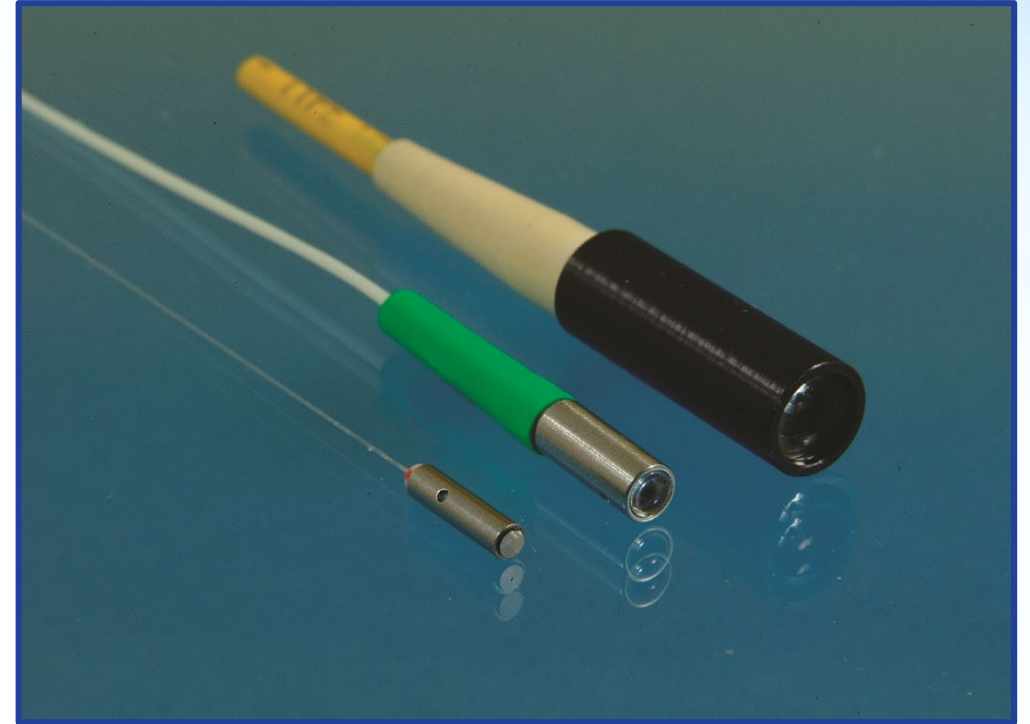
DTS0047 – Laser to Fiber Coupler with Adjustable Focus



# Pigtail Style Collimators / Focusers

## DTS0060: Collimators and Focusers – Pigtail Style

- As small as 2  $\mu\text{m}$  waist diameter
- Up to -60 dB back reflection  
SMF, PMF; 35 dB MMF
- 240 nm – 2200 nm wavelengths available



DTS0060 – Collimators and Focusers – Pigtail Style



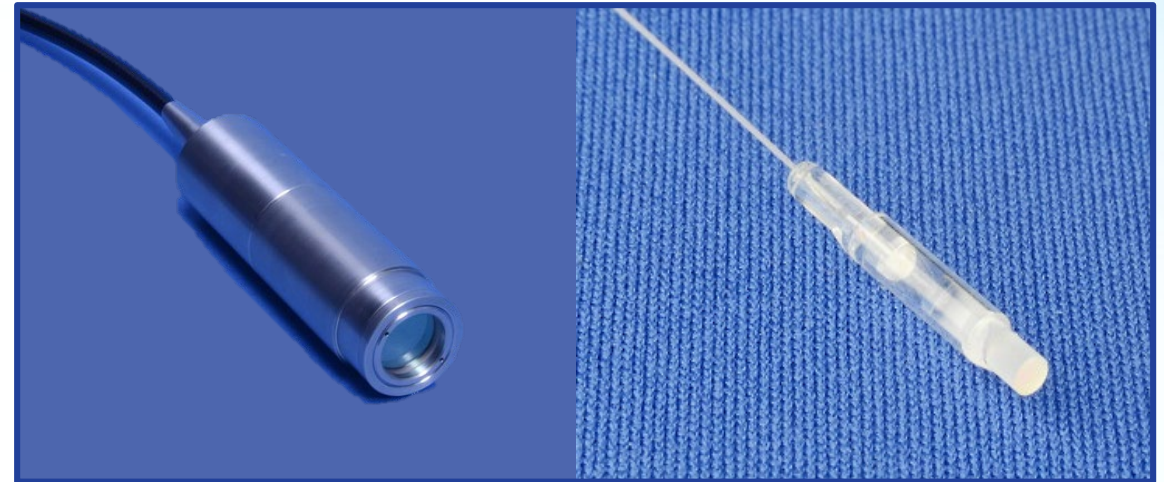


# Pigtail Style Collimators / Focusers

**DTS0157: Fused Fiber Collimator**

**DTS0145: High Power Collimators and Focusers – Pigtail Style**

- Standard collimated beam diameter: 0.2 mm to 3.5 mm
- Standard sizes: 1.6 mm, 2.5 mm, 4 mm, 8 mm, 11 mm, 12 mm & 25.4 mm diameter housing
- Up to 1 kW Power



**DTS0157 – Fused Fiber Collimator**



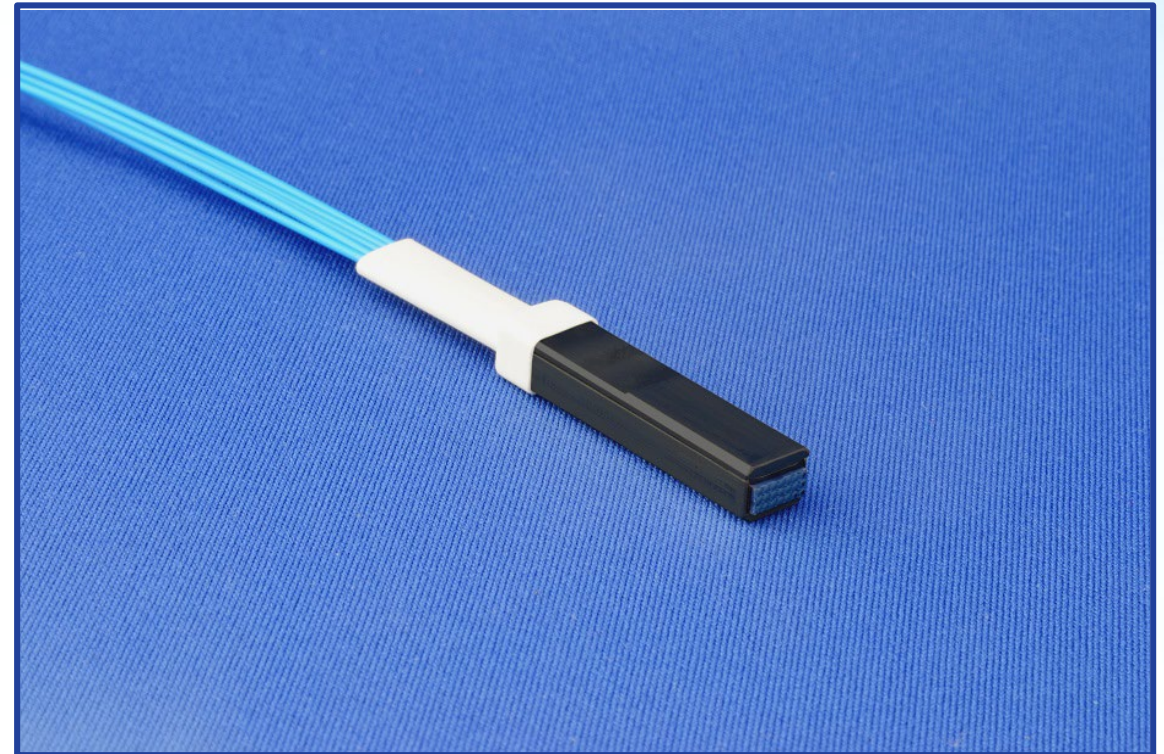
**DTS0145 – High Power Collimators and Focusers – Pigtail Style**



# Precision Fiber Optic Collimator/Focuser Array

## DTS0156: Precision Fiber Optic Collimator/Focuser Array

- High density, small footprint
- Evenly spaced linear configuration
- Generate a precise array of collimated/focused spots



DTS0156 – Precision Fiber Optic Collimator/Focuser Array

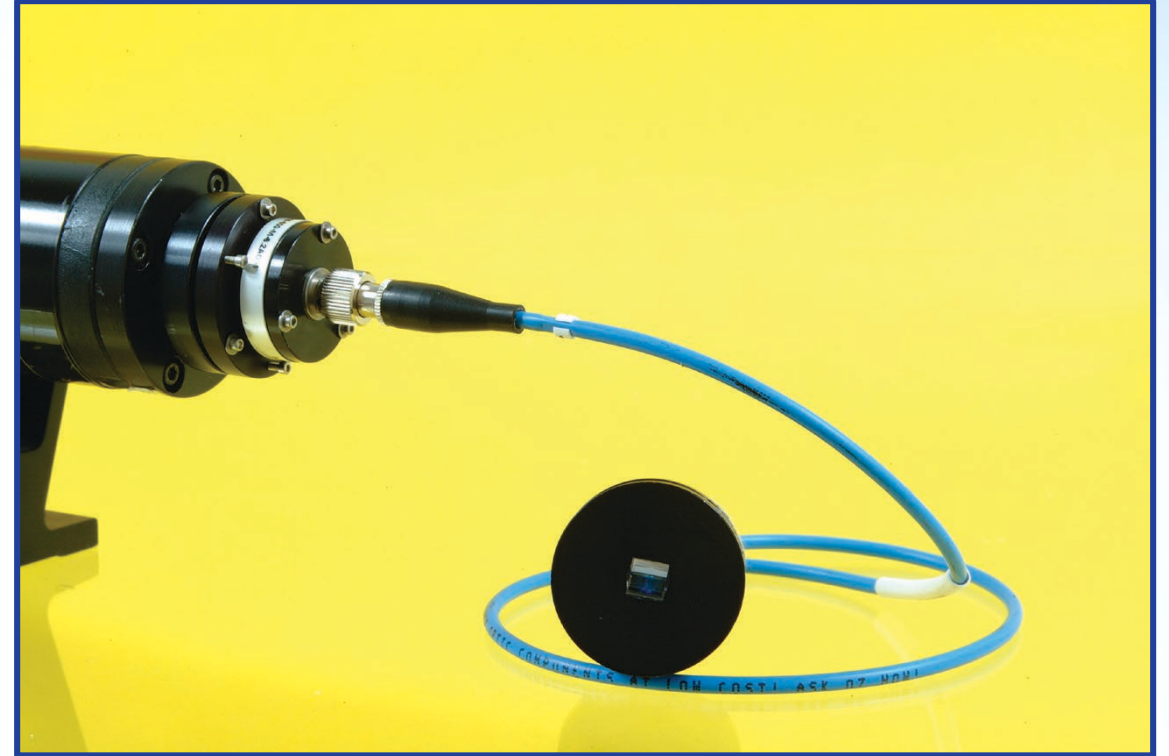


# Delivery Systems for Flow Visualization



## DTS0014: Delivery System for Flow Visualization – Fiber Optic

- Uniform intensity along the line
- Up to 1 mm linewidths, 10° to 60° fan angles
- Cross targets also available

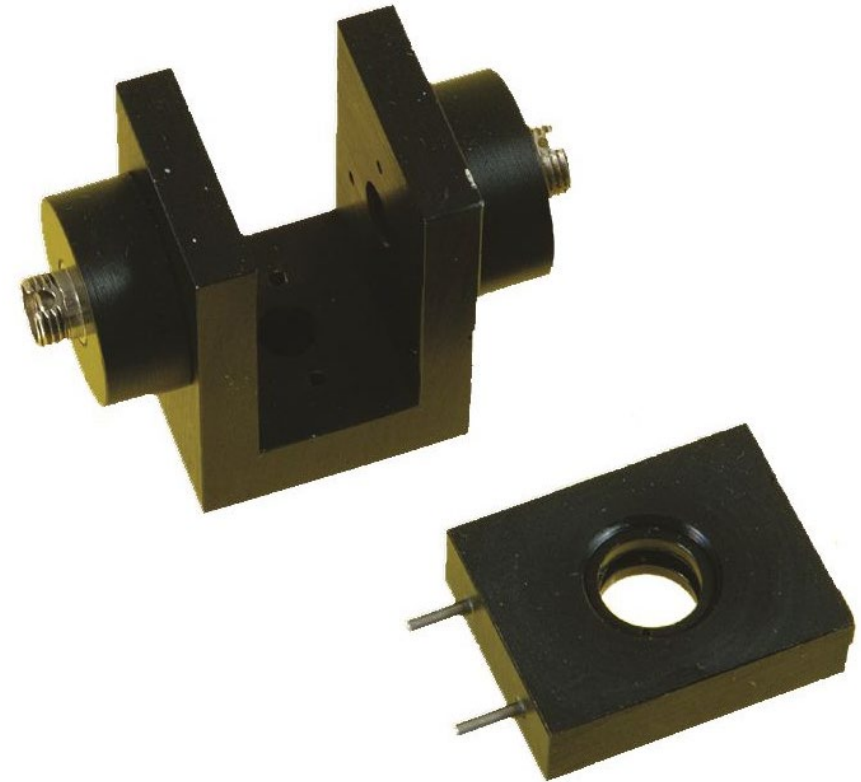


DTS0014 – Delivery Systems for Flow Visualization – Fiber Optic

# U-Brackets with Removable Optics

## DTS0022: U-Bracket Assembly – Fiber Optic

- As good as 0.6 dB insertion loss (pigtail style)
- -40, -50, -60 dB Back reflection
- Use with A/O modulators, bulk optics



DTS0022 – U-Bracket Assembly – Fiber Optic

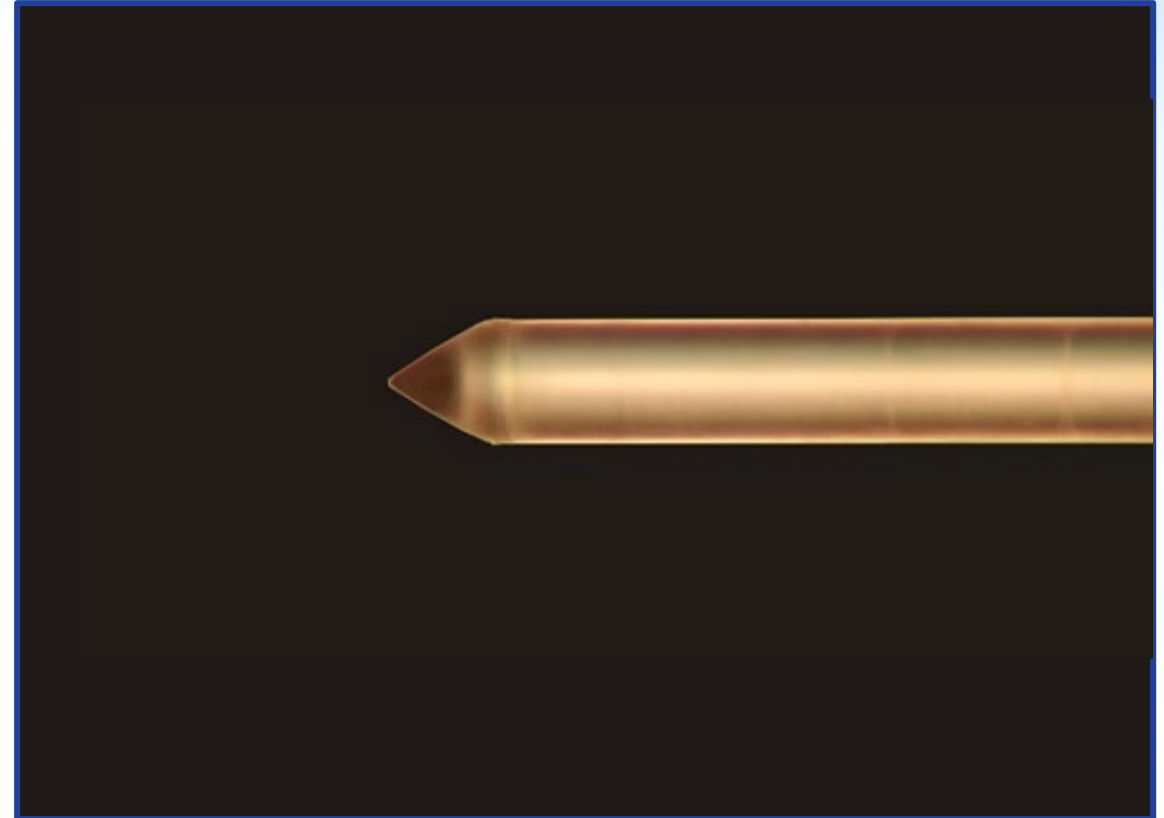




# Tapered/Lensed Fibers

## DTS0080: Tapered and Lensed Fibers

- As Small As 2 Micron Spot Sizes
- Circular And Oval Spot Profiles
- Custom OEM Designs, Metalized Versions



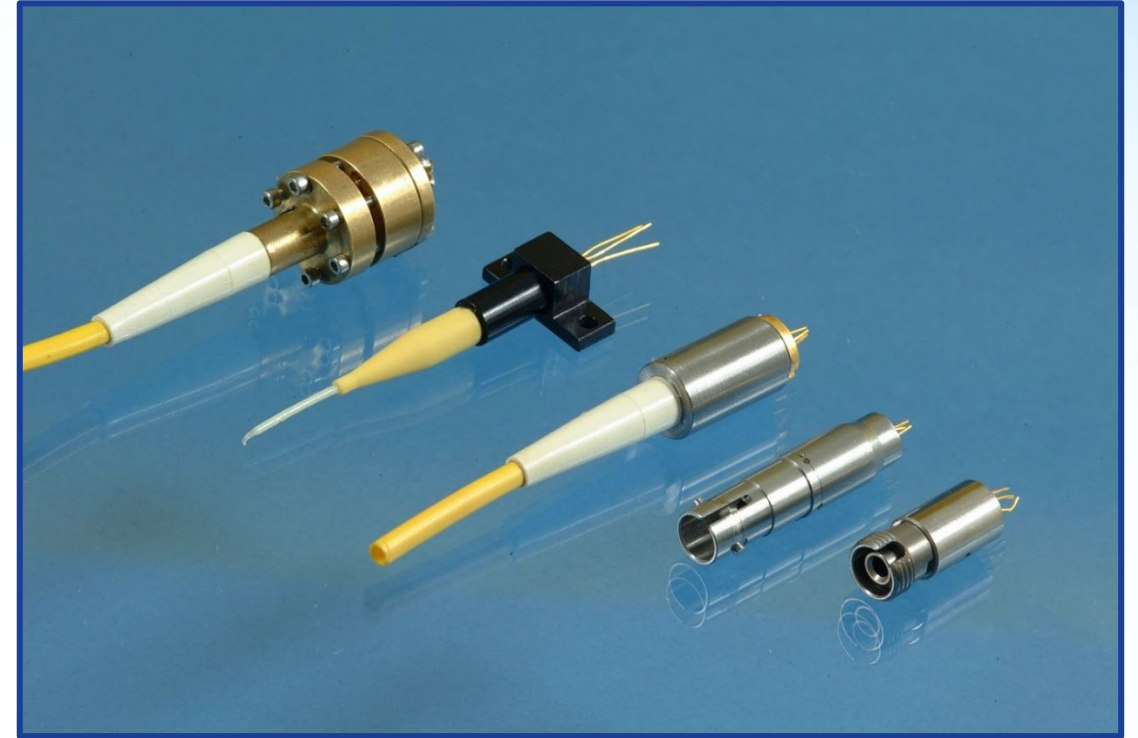
DTS0080 – Tapered and Lensed Fibers



# Laser Diode to Fiber Couplers

## DTS0063: Laser Diode to Fiber Coupler – Pigtail Style

- 375 nm to 2050 nm wavelengths
- Pigtail style offers > 20% coupling into SMF, PMF, up to > 60%
- Receptacle style for MMF
- Low cost, rugged & compact size



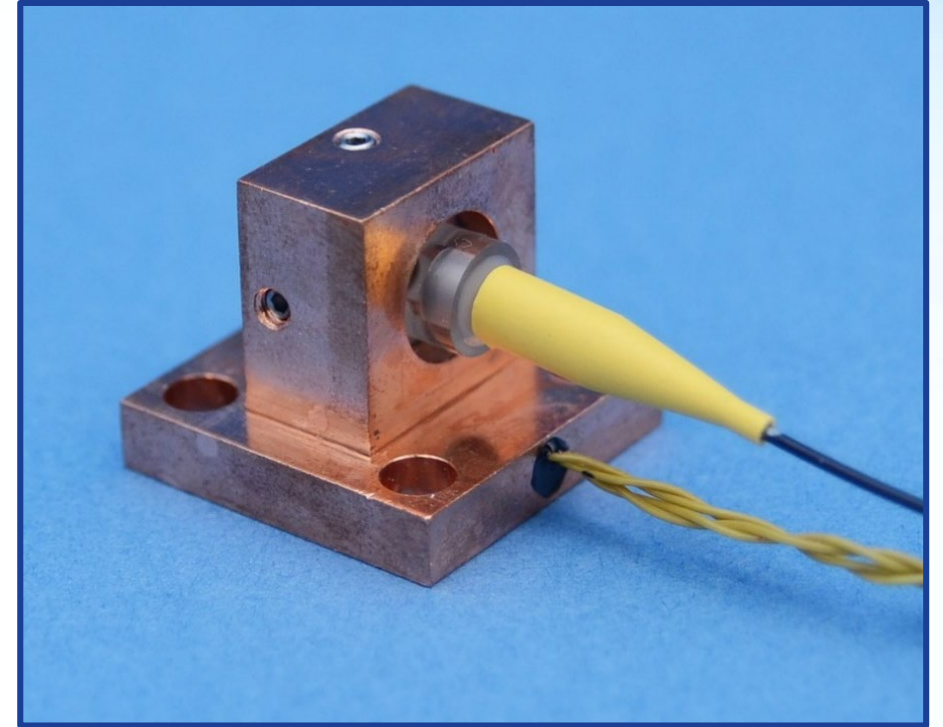
DTS0063 – Laser Diode to Fiber Coupler – Pigtail Style



# **TE Controlled Laser Diode Housings**

## **DTS0063: Laser Diode to Fiber – Pigtail Style**

- 0.01 dB output stability, SMF, PMF & MMF
- Built-in temperature sensor
- 0.1°C temperature control



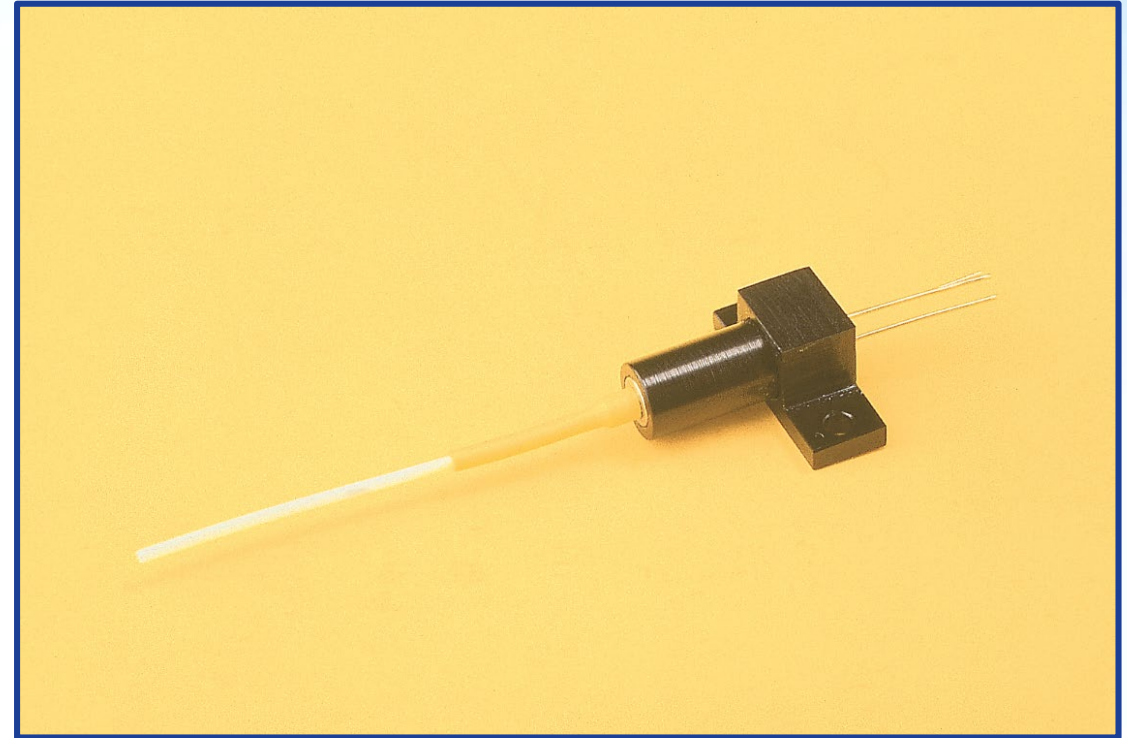
**DTS0063 – Laser Diode to Fiber - Pigtail Style**



# Fiber to Photodiode Couplers

## DTS0025: Fiber to Photodiode Couplers

- High coupling efficiency
- Available in single mode, polarization maintaining and multimode versions
- Compact housing
- InGaAs or Si photodiodes standard
- Contact factory for custom specific diodes
- Small active area photodiodes for high bandwidth



DTS0025 – Fiber to Photodiode Couplers

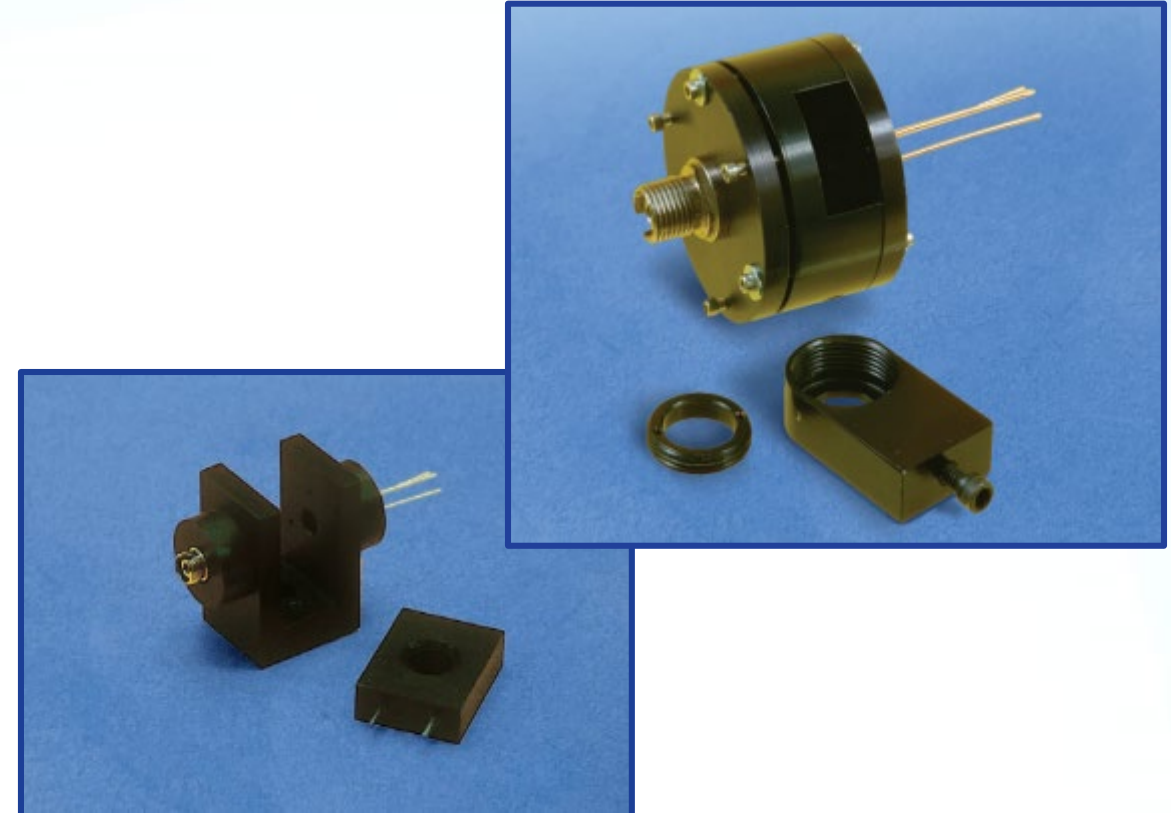




# Fiber to Photodiode Couplers with Removable Filters

## DTS0195: Fiber to Photodiode Couplers with Removable Filters

- High coupling efficiency
- Removable Filter Holder Designs
- Various Filters can be used
- Available in single mode, polarization maintaining and multimode versions
- Rugged and compact Size
- InGaAs or Si photodiodes standard
- Small active area photodiodes for high bandwidth available



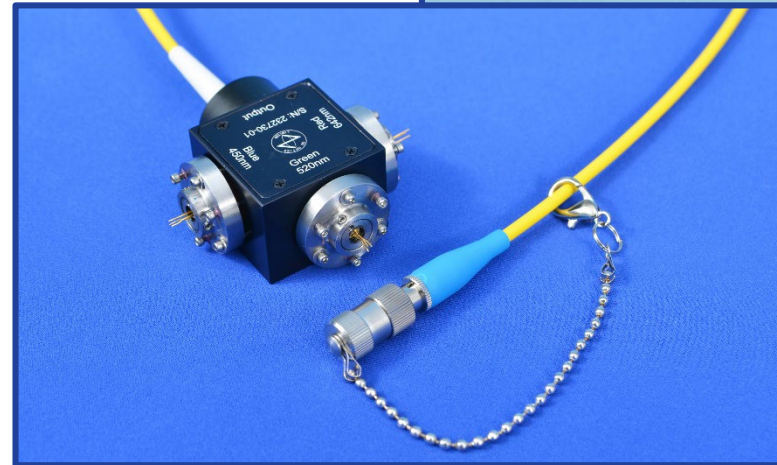
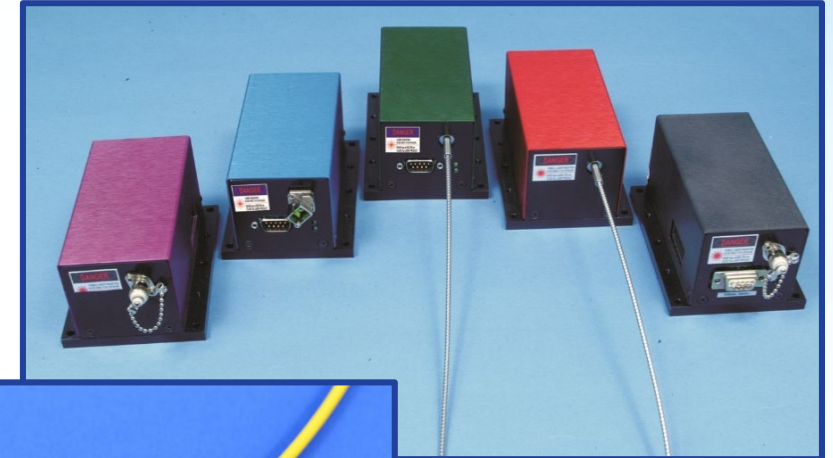
DTS0195 – Fiber to Photodiode Couplers with Removable Filters



# Turn-Key Free-Space or Fiber Pigtailed Laser Modules

## DTS0081: Fiber Pigtailed Ultra Stable Laser Module OZ-1000, OZ-2000 & OZ-3000 Series

- Wide wavelength range 375 nm – 2050 nm
- SM, MM, PM Fiber pigtailed with collimators
- Receptacle versions are also available
- Compact RGB engine



DTS0081 – Fiber Pigtailed Ultra Stable Laser Module OZ-1000, OZ-2000 & OZ-3000 Series

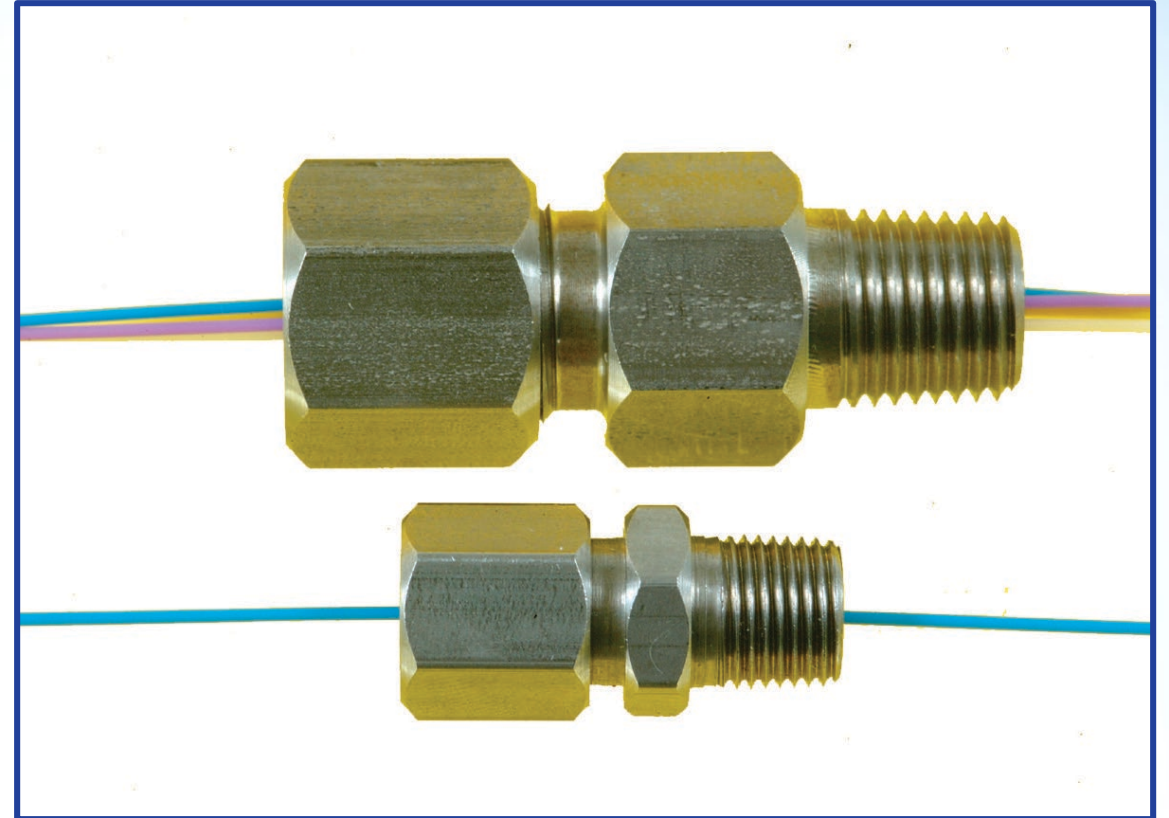




# Penetrating Vacuum Feedthroughs

## DTS0023: Vacuum Pressure Feedthrough – Fiber Optic

- No intrinsic insertion loss or back reflection
- Low cost, rugged & compact size
- Gas leak rate  $10^{-6}$  scc/sec



DTS0023 – Vacuum Pressure Feedthrough – Fiber Optic



# Vacuum Feedthroughs – Receptacle Style

## DTS0023: Vacuum Pressure Feedthrough – Fiber Optic

- **Single mode, polarization maintaining & multimode versions**
- **Easy to install & use. compact & rugged**
- **Gas leak rate 10<sup>-6</sup> scc/sec**



**DTS0023 – Vacuum Pressure Feedthrough – Fiber Optic**

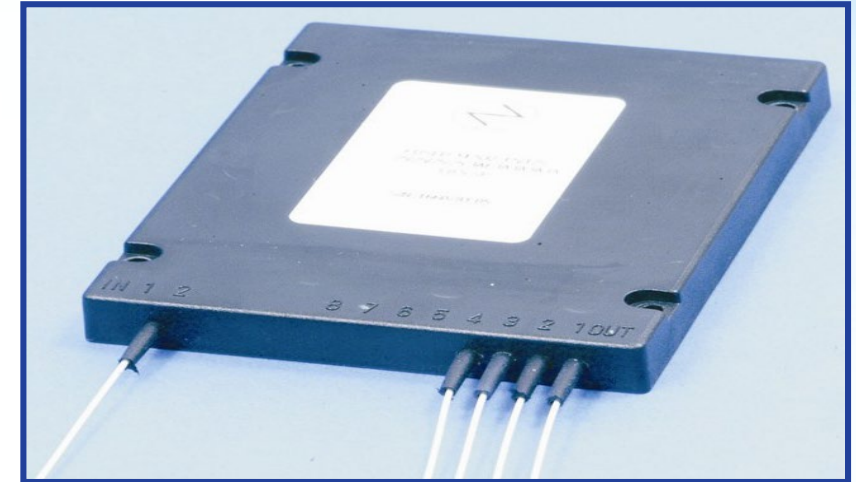




# Fused Fiber Optic Couplers

## DTS0033: Fused Couplers – Fiber Optic

- 1x2, 2x2 & 1xN Couplers Available
- 0.5 dB Typical excess losses, SMF, PMF & MMF
- 488 nm to 2050 nm wavelengths



DTS0033 - Fused Couplers - Fiber Optic

# Fiber Pigtailed Isolators

## DTS0016: Fiber Optic Isolators

- $\leq 0.8$  dB IL, as good as 60 dB isolation
- -40 dB, -50 dB, -60 dB Back reflection SMF & PMF
- 532 nm to 2050 nm wavelengths



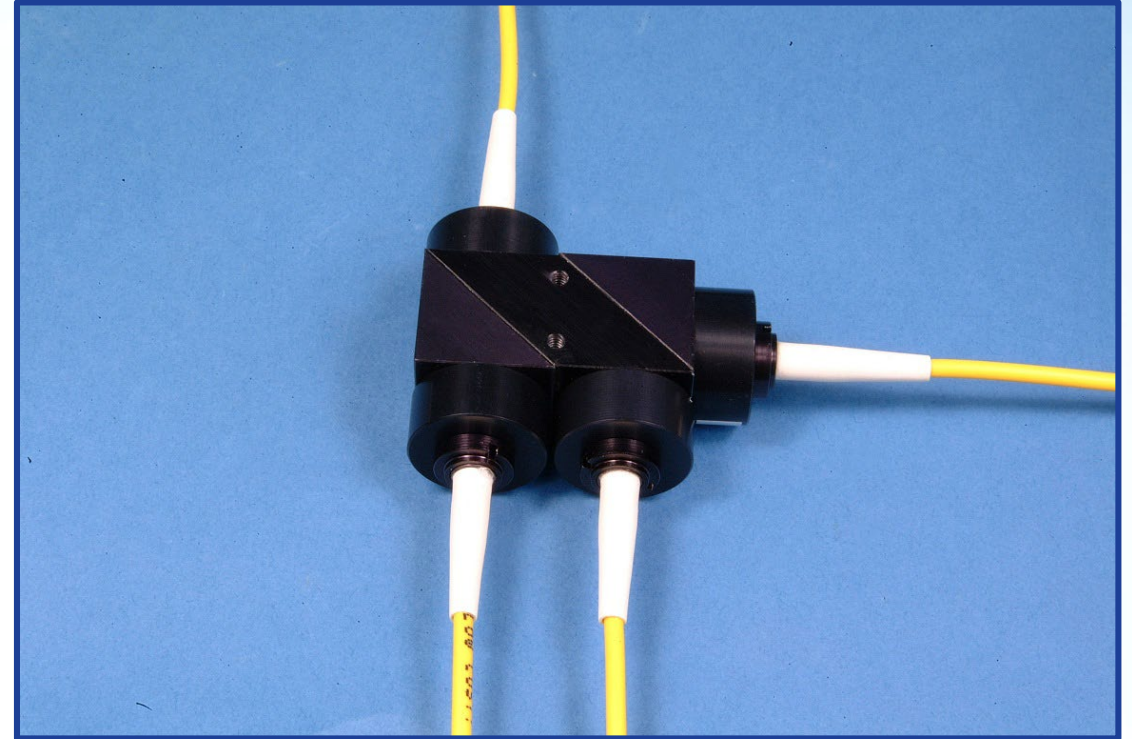




# Wavelength Division Multiplexers

## DTS0089: Wavelength Division Multiplexers

- < 0.8 dB Insertion losses, 65 dB isolation
- Up to 2 Watt power handling
- -40 dB, -50 dB, -60 dB Back reflection
- Combines red/green/blue visible wavelengths
- Two, three, and four wavelength versions
- MM, SM and PM Fiber versions

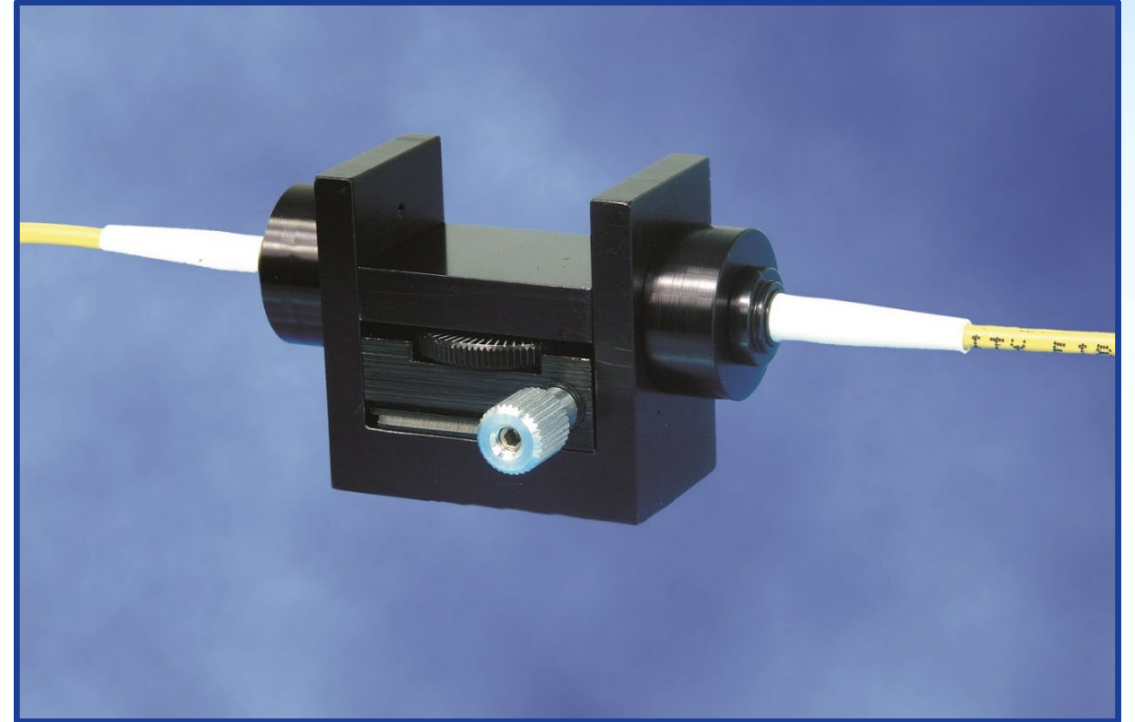


DTS0089 - Wavelength Division Multiplexers

# Fiber Optic Filters

## DTS0031: Fixed and Removable Filters

- 400 nm to 2200 nm Wavelengths, SMF, PMF & MMF
- -40 dB, -50 dB, -60 dB Back reflection
- Filters can be fixed or removable or tunable



DTS0031 – Fixed Filters





# Fiber Optic Filters

## DTS0031: Fixed and Removable Filters

- **400 nm to 2200 nm Wavelengths, SMF, PMF & MMF**
- **-40 dB, -50 dB, -60 dB Back reflection**
- **Filters can be fixed or removable or tunable**



DTS0031 – Fixed Filters



# Power Meter with Smart Detector Heads

## DTS0057: Optical Power Meter with Smart Detector Head

- 85 dB Dynamic Range, Fast Response Time
- 400 – 2050 nm Wavelengths (not calibrated for > 1700 nm), Built-in Attenuator
- Dual Detector Head Capability
- RS-232 or USB Interfaces available



DTS0057 – Optical Power Meter with Smart Detector Head





# Power Meter with Smart Detector Heads

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DTS0057 – Optical Power Meter with Smart Detector Head



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- Dual Detector Head Capability, USB or RS232 Port



DTS0057 – Optical Power Meter with Smart Detector Head





# Smart Detector Head Accessories

## DTS0057: Optical Power Meter with Smart Detector Head

- Integrating spheres for high power measurements
- Optical filters
- Attenuators
- Lenses
- Custom designs

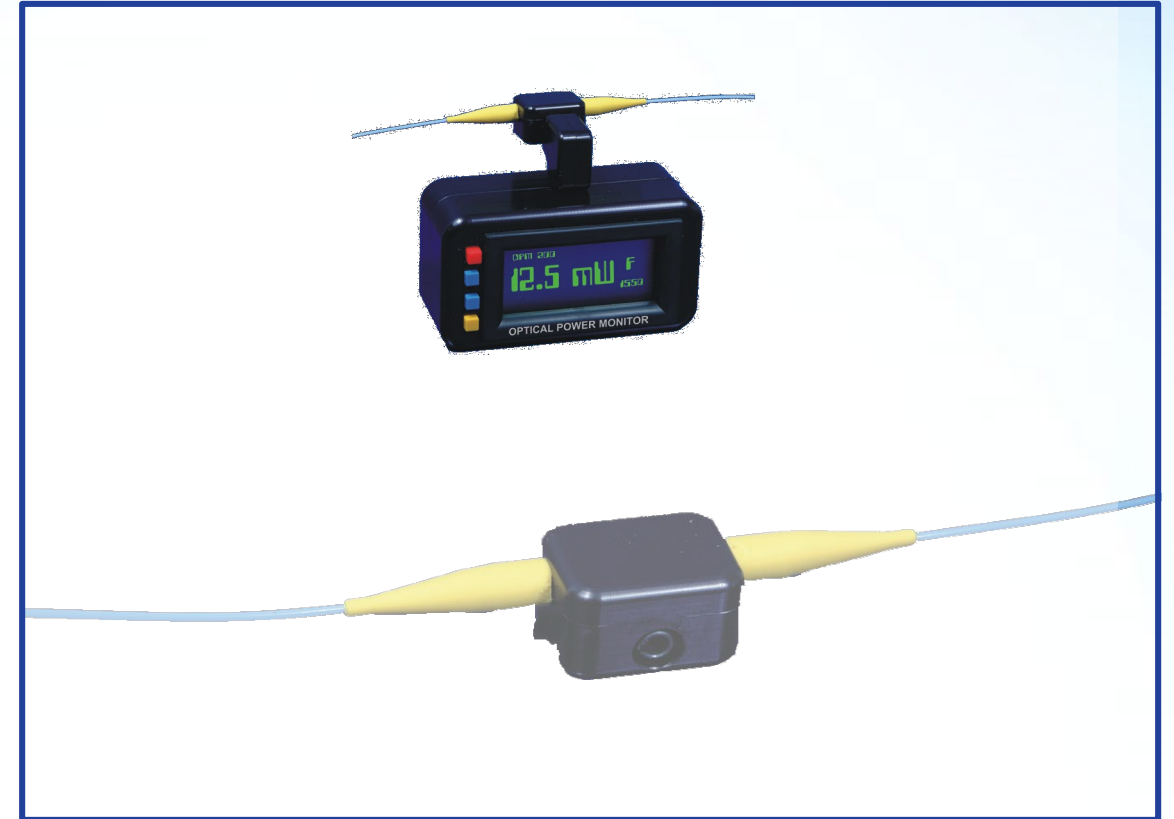


DTS0057 – Optical Power Meter with Smart Detector Head

# Inline Optical Power Meter / Monitor

## DTS0052: Digital Directional Inline Optical Power Monitor / Meter

- Calibrated Power Meter
- Wide Wavelength Range, up to 2 Watts Power
- SM and PM Fiber Versions



DTS0052 – Digital Directional Inline Optical Power Monitor / Meter





# Mini Power Meter

## DTS0104: Mini Optical Power Meter

- Calibrated Power Meter
- Measures up to 10 mW
- Small size
- Low Cost
- Good for FTTX applications



DTS0104 – Mini Optical Power Meter



# Pocket Optical Power Meter

## DTS0150: Pocket Optical Power Meter

- Slim and compact
- Wide wavelength range
- Interchangeable optical connectors available
- Long battery lifetime
- Rechargeable battery or AC adaptor
- USB, RS232 and other interfaces offered upon demand
- OEM version with no display for embedded system



DTS0150 – Pocket Optical Power Meter





# Low Cost Smart Detector Head/Optical Power Monitor



**NEW**

- Low cost
- Slim and compact
- Built-in InGaAs detector for IR range or Si detector for Visible
- Interchangeable optical connectors available
- Calibrated and uncalibrated versions available
- Customer may perform their own calibration
- USB and RS232 interfaces



**DTS0155 – Pocket Optical Power Meter**



# Hand Held Optical Power Meter

## DTS0150: Hand Held Optical Power Meter

- Wide dynamic range
- Wide wavelength range
- Long battery life
- Interchangeable optical connectors
- RS-232 and USB Interfaces available



DTS0150 – Hand Held Optical Power Meter

# Thank You for Choosing OZ Optics

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Please Contact Our Sales Department:

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Toll Free: 1-800-361-5415

Email: [sales@ozoptics.com](mailto:sales@ozoptics.com)

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