



# TELEOS

## OEM Fiber Pigtailed TEC Cooled Diode Laser System Offering Unsurpassed Optical Stability

With the TELEOS laser system, Diode Laser Concepts, Inc. is redefining the industry standard for optical stability and performance. DLC's broader optical stability specification communicates the advanced electronic, thermal and mechanical stability design features incorporated into our OEM laser system.

TELEOS also offers the highest output power at 643nm and 405nm, up to 60mW at the fiber output, nearly twice that of the competition. Customizable areas include the fiber type, fiber length, fiber termination, wavelength, output power and mechanical mounting.

For customers needing more than 60mW or more than one wavelength, DLC offers custom TELEOS systems that incorporate multiple fiber pigtailed laser diodes into a single, compact mechanical housing.

### 405nm and 643nm up to 60mW at the Fiber Output

#### Optical Stability

- Output Power : <1% over 12 hrs.
- Temperature: <0.01°C (typical 0.002°C)
- Wavelength: <2.5 x 10<sup>-3</sup>nm/°C
- M<sup>2</sup> Value: <1.1

#### Single Mode PM Fiber

#### Integrated Drive Electronics/Laser Enable

#### Customization Available Upon Request:

- Fiber Termination, Fiber Length and Fiber Type
- Output Power
- Wavelength

#### Multiple Wavelengths / Single Mechanical Package

#### Applications:

- Flow Cytometry, Cell Scanning
- Confocal Microscopy, Spectroscopy



For more information or to place an order contact DLC  
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**Electrical Housing Specifications**

Housing Dimensions	40mm x 40mm x 80mm (base plate 100mm)
Housing Material	Aluminum, Anodized (Type II, Class 2 Anodization, Electrically Isolated)

**Electrical Specifications**

Operating Voltage	643nm - 5VDC $\pm$ 1%, 405nm 8VDC $\pm$ 1%
Load Current	2.0A max.
Interconnect	Custom Supplied Cable
Warm Up Time	<5 minutes
Laser Enable Control Input	
– Maximum Bandwidth	<5kHz
– Rise or Fall Time	>10ms
– Modulation Depth	Complete On/Off

**Environmental Specifications**

Operating Temperature	10°C to 35°C
Storage Temperature	-10°C to 60°C (Non Condensing Environment)
Optical Platform Temperature Stability	<0.01°C (typical 0.002°C)

**Optical Specifications**

Wavelength Range	643nm, 405nm
Wavelength Stability	<2.5 x 10 <sup>-3</sup> nm
Optical Power Range	Up to 60mW, (at the exit aperture of the fiber)
Output Power Stability Over 12 hrs.	<1% (at 25°C +/- 3°C)
M <sup>2</sup> Value	<1.1
Aspect Ratio	<1.05
Spatial Mode	TEM00
Polarization Ratio	Contact DLC
Noise	RMS <0.15%

**Optical Delivery**

Fiber Type	Single Mode or PM Single Mode
Fiber Termination	Customer Specified (connector, collimator, bare fiber, etc.)
Fiber Length	Customer Specified (typical 1m)

**Reliability / Regulatory Specifications**

Laser Lifetime	>5,000 hrs at 25°C
Certification/Regulatory	TBD
Warranty	643nm - 2 Years, 405nm - 1 year