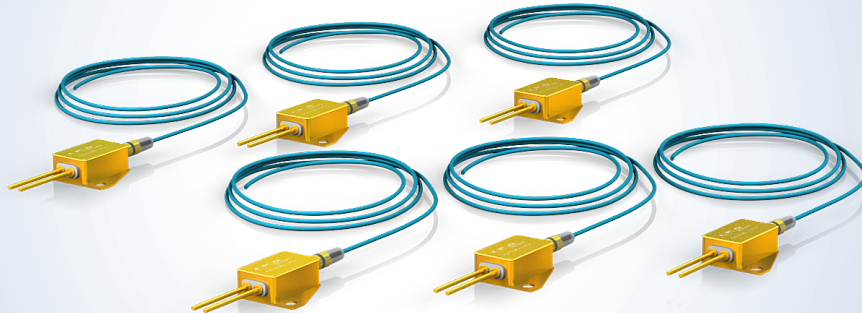


PLD-10 Series: 915-975 nm, 10 W

Multi-mode Fiber-coupled Diode Lasers



Applications

- ▶ Amplifier Pumping
- ▶ Laser Pumping
- ▶ Graphic Arts / Printing
- ▶ Illumination
- ▶ Direct Diode Lasers
- ▶ Material Processing
- ▶ Medical & Dental
- ▶ Photovoltaics

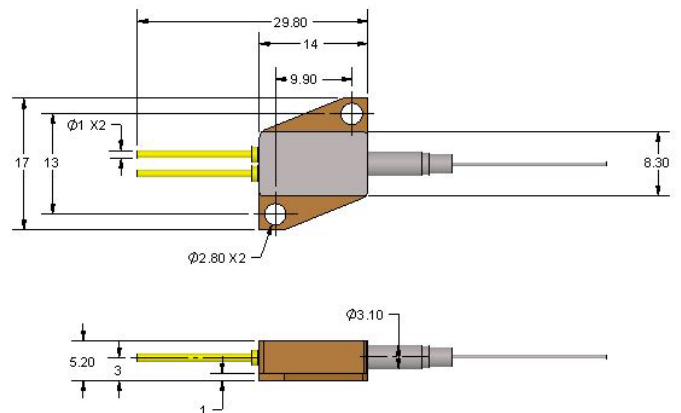


Features

- ▶ 915, 940, 975 nm Center Wavelengths
- ▶ 10 W Output Power
- ▶ 0.13 NA into 105 or 110 μm Fiber Core Diameter
- ▶ High Reliability
- ▶ Robust Compact Package

IPG Photonics' PLD-10 Series fiber-coupled diode lasers provide up to 10 W of output power within 0.13 NA. PLD-10 diode options include 105 μm or 110 μm fiber core diameter, and center wavelength at 915 nm, 940 nm or 975 nm.

IPG's best-in-class diode technology offers an ideal combination of power, reliability and form factor. The diodes leverage our vast telecommunication industry experience and technology investment. We manufacture to rigorous telecom-grade standards in the world's largest high power diode fab. Each wafer is individually qualified, which sets IPG apart from alternative industrial pump products using short-lived diode bars and bar-stack technologies. PLD-10 diode lasers are preferred for fiber amplifier and laser pumping, material processing and direct diode applications.



PLD-10 Series: 915-975 nm, 10 W

Multi-mode Fiber-coupled Diode Lasers

Optical Characteristics¹

Center Wavelength, nm	915, 940, 975
Center Wavelength Tolerance, nm	± 3
Output Power, W	10
Spectral Width (FWHM), nm	5
Slope Efficiency, W/A	0.7
Conversion Efficiency, %	48
Threshold Current (I_{TH}), A	0.6
Operating Current (I_{OP}), A	12
Forward Voltage, V	1.7
Recommended Case Temperature, °C	25
Wavelength Shift with Temperature, nm/°C	0.35
Wavelength Shift with Operating Current, nm/A	< 2.4

¹Typical performance data measured at 12A, 25°C.

Fiber Characteristics

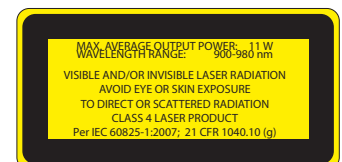
Fiber Core Diameter, μm	105 or 110 options available
Fiber Cladding Diameter, μm	125
Fiber Buffer Diameter, μm	250
Beam Numerical Aperture (90% power)	0.13
Fiber Length, m	0.75 - 1.2
Minimum Fiber Bend Radius, mm	30

Maximum Ratings

Operating Current (I_{OP}), A	14
Reverse Voltage, V	2.5
Case Temperature, °C	5 to 70
Storage Temperature, °C	-30 to 80
Lead Soldering Temperature (10 s max), °C	300
Relative Humidity, %	85

+1 (205) 307-6677
 sales.us@ipgphotonics.com
www.ipgphotonics.com

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