

PLD-212 Series: 915-970 nm, 135 W

Multi-mode Fiber-coupled Diode Lasers



Applications

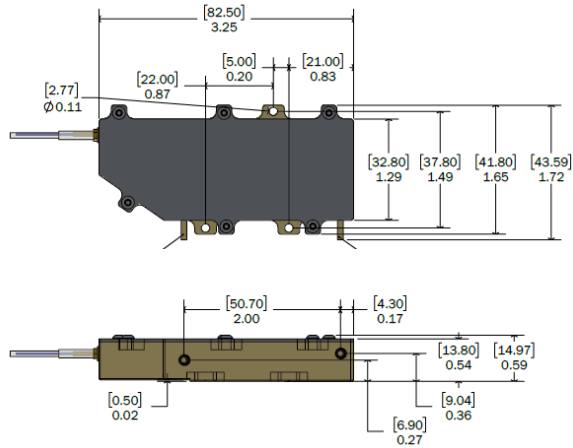
- ▶ Amplifier Pumping
- ▶ Laser Pumping
- ▶ Graphic Arts / Printing
- ▶ Illumination
- ▶ Direct Diode Lasers
- ▶ Material Processing
- ▶ Medical & Dental
- ▶ Photovoltaics

Features

- ▶ 915, 940, 970 nm Center Wavelength
- ▶ 135 W Output Power
- ▶ High Reliability
- ▶ Robust Compact Package
- ▶ Wavelength Stabilization and Dichroic Options
- ▶ <0.2 NA into 110 μm Fiber Core Diameter

IPG Photonics' PLD-212 fiber-coupled diode lasers provide up to 135 W of output power within 0.2 NA. PLD-212 diode features include a 110 μm fiber core diameter and center wavelengths at 915 nm, 940 nm or 970 nm. Wavelength stabilization and dichroic options are also available.

IPG's best-in-class diode technology offers an ideal combination of power, reliability and form factor. 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-212 diode lasers are preferred for fiber amplifier and laser pumping, material processing and direct diode applications.



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Multi-mode Fiber-coupled Diode Lasers

Optical and Electrical Characteristics*		PLD-212
Center Wavelength**, nm		972
Center Wavelength Tolerance, nm		± 5
Output Power, W		135
Spectral Width (FWHM), nm		4
Slope Efficiency, W/A		7
Minimum Efficiency, %		50
Threshold Current (I_{TH}), A		1.35
Operating Current (I_{OP}), A		18
Operating Voltage, V		14
Recommended Case Temperature, °C		25
Power Shift with Operating Current, W/A		7.4
Wavelength Shift with Operating Current, nm/A		0.5

*Typical performance data measured at 18 A, 25°C. **915 and 940 nm center wavelengths also available upon request.

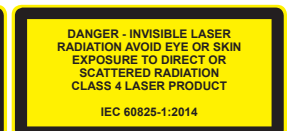
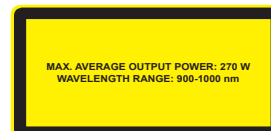
Fiber Characteristics	
Fiber Core Diameter, μm	110
Fiber Cladding Diameter, μm	125
Fiber Buffer Diameter, μm	250
Beam Numerical Aperture (90% power)	< 0.2
Fiber Length, mm	190
Minimum Fiber Bend Radius, mm	30

Maximum Ratings	
Operating Current (I_{OP}), A	18
Reverse Voltage, V	5
Case Temperature, °C	5 to 70
Storage Temperature, °C	-20 to 60
Lead Soldering Temperature (10 s max) °C	300
Relative Humidity, %	85

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