

PLD-212-970, 105 W

Multi-mode Fiber-coupled Diode Lasers

NEW PRODUCT



Applications

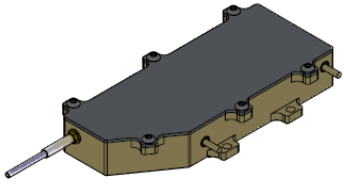
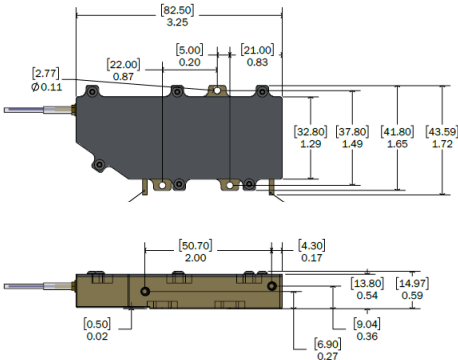
- ▶ Amplifier Pumping
- ▶ Laser Pumping
- ▶ Graphic Arts / Printing
- ▶ Illumination
- ▶ Direct Diode Lasers
- ▶ Material Processing
- ▶ Medical & Dental
- ▶ Photovoltaics

Features

- ▶ 970 nm Center Wavelength
- ▶ 105 W Output Power
- ▶ High Reliability
- ▶ Robust Compact Package
- ▶ Wavelength Stabilization and Dichroic Options
- ▶ 0.16 NA into 110 μm Fiber Core Diameter

IPG Photonics' PLD-212 fiber-coupled diode lasers provide up to 105 W of output power within 0.16 NA. PLD-212 diode features include a 110 μm fiber core diameter and 970 nm center wavelength. 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.



PLD-212-970, 105 W

Multi-mode Fiber-coupled Diode Lasers

Optical and Electrical Characteristics¹

PLD-212

Center Wavelength, nm	968
Center Wavelength Tolerance, nm	± 5
Output Power, W	105
Spectral Width (FWHM), nm	4
Slope Efficiency, W/A	5
Minimum Efficiency, %	50
Threshold Current (I_{TH}), A	1
Operating Current (I_{OP}), A	14
Operating Voltage, V	13.3
Recommended Case Temperature, °C	25
Power Shift with Operating Current, W/A	7.4
Wavelength Shift with Operating Current, nm/A	0.5

¹Typical performance data measured at 14A, 25°C.

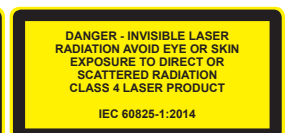
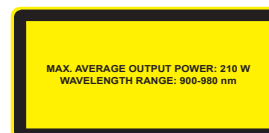
Fiber Characteristics

Fiber Core Diameter, μm	110
Fiber Cladding Diameter, μm	125
Fiber Buffer Diameter, μm	230
Beam Numerical Aperture (90% power)	0.16
Fiber Length, mm	190
Minimum Fiber Bend Radius, mm	30

Maximum Ratings

Operating Current (I_{OP}), A	14
Reverse Voltage, V	7.5
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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