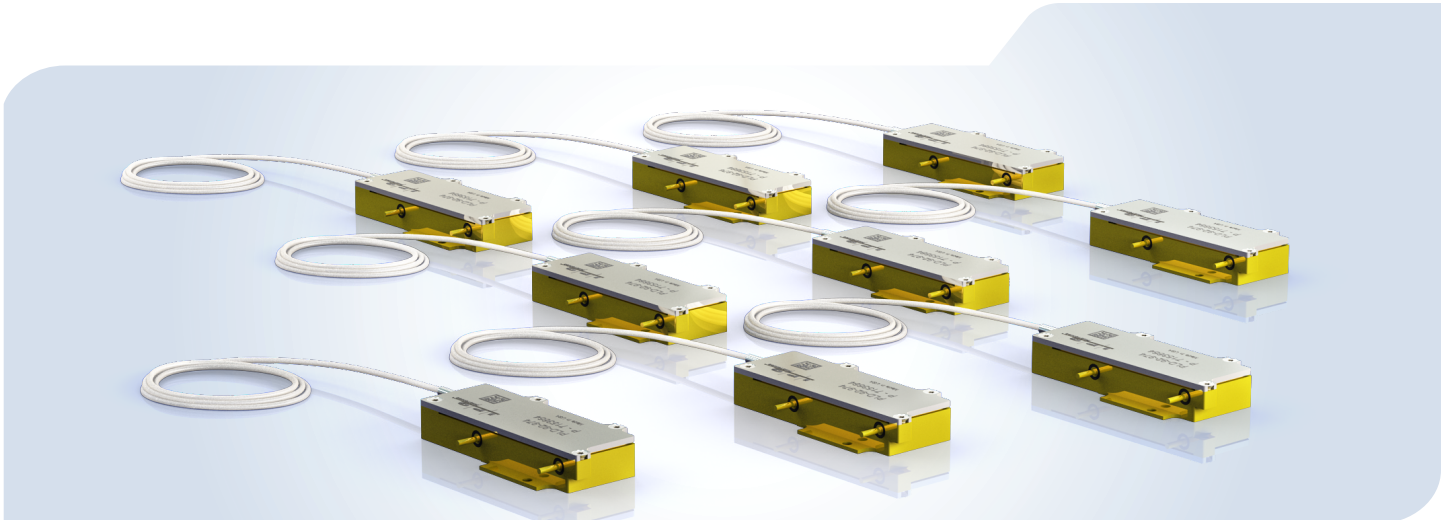


# PLD-92 Series: 915-970 nm, 80 W

## Multi-mode Fiber-coupled Diode Lasers



### Applications

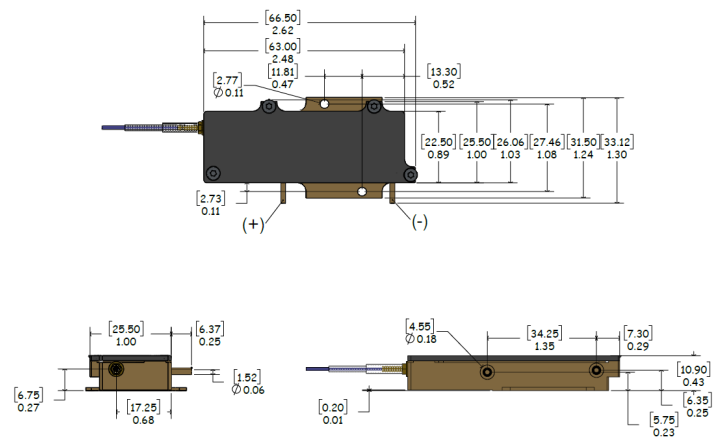
- ▶ Amplifier Pumping
- ▶ Laser Pumping
- ▶ Graphic Arts / Printing
- ▶ Illumination
- ▶ Direct Diode Lasers
- ▶ Material Processing
- ▶ Medical & Dental
- ▶ Photovoltaics

### Features

- ▶ 915, 940, 970 nm Center Wavelengths
- ▶ 80 W Output Power
- ▶ High Reliability
- ▶ Robust Compact Package
- ▶ Wavelength Stabilization and Dichroic Options
- ▶ 0.15 NA into 110  $\mu\text{m}$  Fiber Core Diameter

IPG Photonics' PLD-92 fiber-coupled diode lasers provide up to 80 W of output power within 0.15 NA. PLD-92 diode are provided with a 110  $\mu\text{m}$  fiber core 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-92 diode lasers are preferred for fiber amplifier and laser pumping, material processing, and direct diode applications.



# PLD-92 Series: 915-970 nm, 80 W

## Multi-mode Fiber-coupled Diode Lasers

Optical and Electrical Characteristics*		PLD-92
Center Wavelength**, nm		971
Center Wavelength Tolerance, nm		± 5
Output Power, W		80
Spectral Width (FWHM), nm		4
Slope Efficiency, W/A		5
Minimum Efficiency, %		52
Threshold Current ( $I_{TH}$ ), A		0.8
Operating Current ( $I_{OP}$ ), A		16
Forward Voltage, V		9.3
Recommended Case Temperature, °C		25
Wavelength Shift with Temperature, nm/°C		0.35
Wavelength Shift with Operating Current, nm/A		0.6

\*Typical performance data measured at 16 A, 25°C. \*\*915 and 940 nm center wavelengths also available upon request.

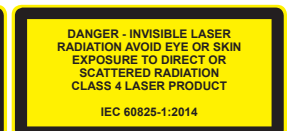
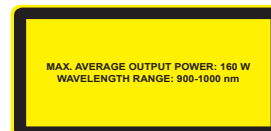
Fiber Characteristics	
Fiber Core Diameter, $\mu\text{m}$	110
Fiber Cladding Diameter, $\mu\text{m}$	125
Fiber Buffer Diameter, $\mu\text{m}$	250
Beam Numerical Aperture (90% power)	0.15
Fiber Length, m	1.9
Minimum Fiber Bend Radius, mm	30

Maximum Ratings	
Operating Current ( $I_{OP}$ ), A	16
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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