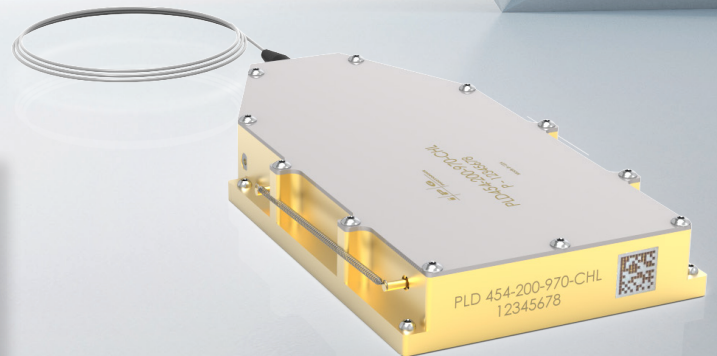
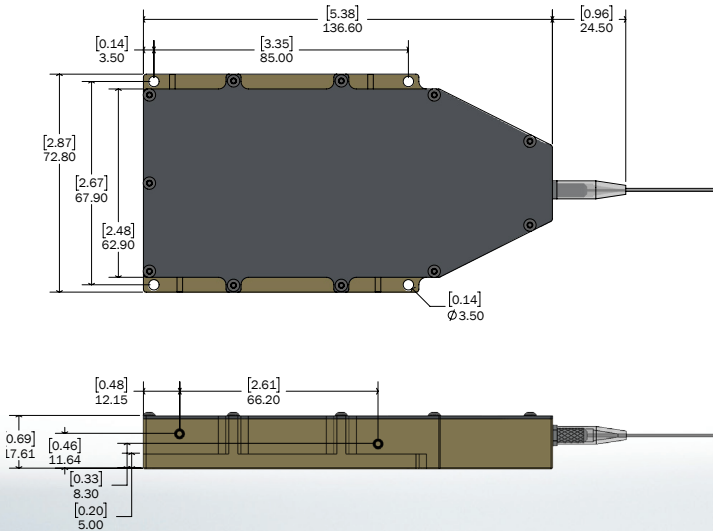


# PLD-454-200-970-CHL

## Multi-mode Fiber-coupled Diode Lasers



### FEATURES

- ▶ 970 nm Center Wavelength
- ▶ 380 W Output Power
- ▶ >50% Typical Wall-plug Efficiency
- ▶ Robust Compact Package
- ▶ Wavelength Stabilization and Dichroic Options
- ▶ 200  $\mu\text{m}$  Core Fiber Diameter



### APPLICATIONS

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

IPG Photonics **PLD-454-200-970-CHL** fiber-coupled diode lasers provide 380 W of output power at 20 A. The PLD-454 features a 200  $\mu\text{m}$  fiber core diameter and a 970 nm center wavelength. Wavelength stabilization and dichroic options are available.

IPG best-in-class diode technology offers an ideal combination of power, reliability and form factor. At IPG, 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-454 diode lasers are the preferred solution for fiber amplifier and laser pumping, material processing and direct diode applications.

# PLD-454-200-970-CHL

## Multi-mode Fiber-coupled Diode Lasers

### Optical and Electrical Characteristics\*

Center Wavelength, nm	970
Center Wavelength Tolerance, nm	+/- 5
Output Power, W	380
Spectral Width (FWHM), nm	<0.3
Slope Efficiency, W/A	9
Efficiency, %	>50
Threshold Current ( $I_{TH}$ ), A	2
Operating Current ( $I_{OP}$ ), A	20
Forward Voltage, V	Up to 36.7
Recommended Case Temperature, °C	25
Wavelength Shift with Temperature, nm/°C	0.35

\*Typical performance data measured at 20 A, 25°C.

### Fiber Characteristics

Fiber Core Diameter, $\mu\text{m}$	200
Fiber Cladding Diameter, $\mu\text{m}$	227
Fiber Buffer Diameter, $\mu\text{m}$	900
Beam Numerical Aperture (90% power)	<0.2
Fiber Length, m	2
Minimum Fiber Bend Radius, mm	35

### Maximum Ratings

Operating Current ( $I_{OP}$ ), A	30
Reverse Voltage, V	7.5
Case Temperature, °C	5 - 70
Storage Temperature, °C	-20 to 60
Lead Soldering Temperature (10 s max) °C	300
Relative Humidity, %	85



+1 (508) 373-1100;  
[IPGPhotonics.com/contact](https://www.ipgphotonics.com/contact)  
[www.ipgphotonics.com](https://www.ipgphotonics.com)

MAX. AVERAGE OUTPUT POWER: 720 W  
 WAVELENGTH RANGE: 900-1000 nm

DANGER - INVISIBLE LASER  
 RADIATION AVOID EYE OR SKIN  
 EXPOSURE TO DIRECT OR  
 SCATTERED RADIATION  
 CLASS 4 LASER PRODUCT

IEC 60825-1:2014

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