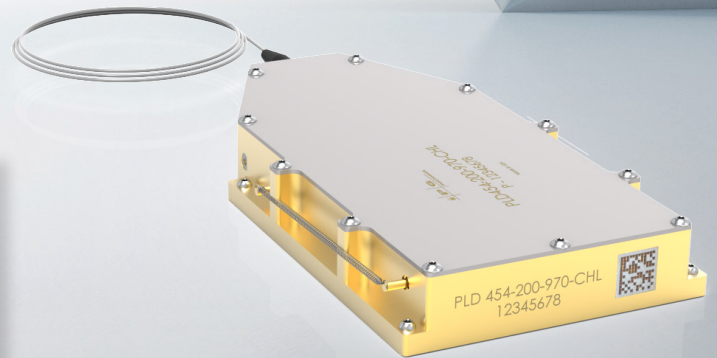
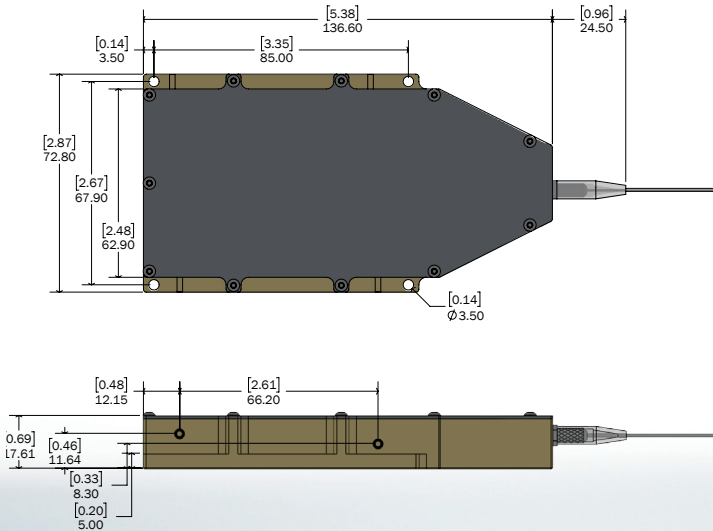


PLD-454-200-970-CHL

Multi-mode Fiber-coupled Packaged Diodes



FEATURES

- ▶ 970 nm Center Wavelength
- ▶ 380 W Output Power
- ▶ >50% Typical Wall-plug Efficiency
- ▶ Robust Compact Package
- ▶ Wavelength Stabilization and Dichroic Options
- ▶ 200 μ 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 packaged diodes provide 380 W of output power at 20 A. The PLD-454 features a 200 μ 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 packaged diodes 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 Packaged Diodes

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, μm	200
Fiber Cladding Diameter, μm	227
Fiber Buffer Diameter, μm	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

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

Legal notices: All product information is believed to be accurate and is subject to change without notice. Information contained herein shall legally bind IPG only if it is specifically incorporated into the terms and conditions of a sales agreement. Some specific combinations of options may not be available. The user assumes all risks and liability whatsoever in connection with use of a product or its application. IPG, IPG Photonics, The Power to Transform and IPG Photonics' logo are trademarks of IPG Photonics Corporation. © 2024 IPG Photonics Corporation. All rights reserved.