



PLD-222-200-878-WS-SMA, 150 W

Multi-mode Fiber-coupled Diode Lasers



Applications

- ▶ Vanadate-based Solid-state Laser Pumping
- ▶ Ultrashort Pulse Laser Pumping
- ▶ Ultraviolet Laser Pumping



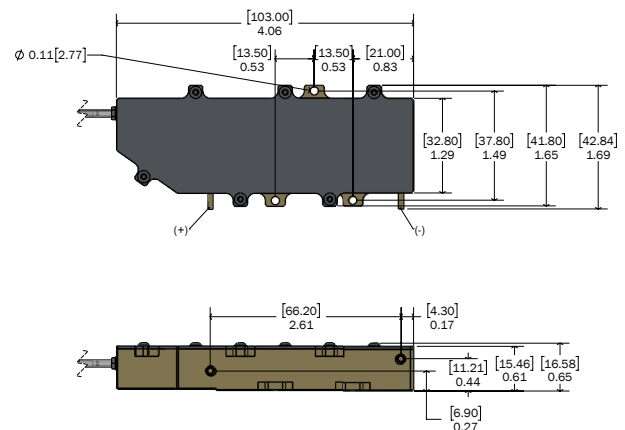
Features

- ▶ 878.6+/-0.5 nm Center Wavelength
- ▶ Wavelength-stabilized Across Wide Current Range
- ▶ 150 W Maximum Output Power at 16 Amperes
- ▶ High (99% power-in-band) Spectral Purity
- ▶ Typical Wallplug Efficiency >50%
- ▶ 200 μm Fiber Pigtail (400 μm fiber option), SMA-Connector
- ▶ Compact Fiber-coupled Package
- ▶ Dichroic Filter Option for Back-reflection Protection



IPG Photonics' line of 878.6 nm fiber-coupled diode lasers provides a complete pumping solution for Vanadate-based solid-state lasers. IPG's wavelength-stabilized diodes are differentiated by an unmatched level of spectral purity and stability. We offer an ideal combination of power, reliability and form factor with solutions ranging from 30 Watts to 150 Watts maximum fiber-coupled output power.

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. IPG's line of 878.6nm fiber-coupled diode lasers becomes the new de-facto standard for Vanadate-based solid-state laser pumping.



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| Optical and Electrical Characteristics* | | PLD-222-200-878-WS-SMA |
|--|--|------------------------|
| Center Wavelength, nm | | 878.6 |
| Center Wavelength Tolerance, nm | | +/- 0.5 |
| Output Power, W | | 120 - 150 |
| Spectral Width (FWHM), nm | | <0.3 |
| Slope Efficiency, W/A | | >10 |
| Efficiency, % | | 50 |
| Threshold Current (I_{TH}), A | | 2 |
| Operating Current (I_{OP}), A | | 13 - 16 |
| Forward Voltage, V | | <20 |
| Recommended Case Temperature, °C | | 25 |
| Wavelength Shift with Temperature, nm/°C | | <0.01 |

*Typical performance data measured at 16 A, 25°C.

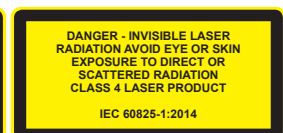
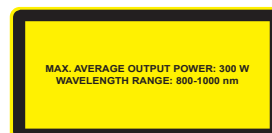
| Fiber Characteristics | |
|--|---------|
| Fiber Core Diameter, μm | 200 |
| Fiber Cladding Diameter, μm | 227 |
| SMA Connector | SMA 905 |
| Beam Numerical Aperture (90% power) | <0.2 |
| Fiber Length, m | 2 |
| Minimum Fiber Bend Radius, mm | 60 |

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

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