



TLM-500-MM

Thulium 500 W CW Fiber Laser

NEW PRODUCT



Applications

- ▶ Medical Treatment
- ▶ Medical Surgery
- ▶ Pollution Control/Remote Sensing
- ▶ Dermatology
- ▶ Plastic Cutting and Welding
- ▶ Non-metal Materials Processing



Features

- ▶ Wavelength 1.9 μm
- ▶ Output Power up to 500 W
- ▶ Multi-mode Fiber Output
- ▶ Direct Modulation
- ▶ Water-cooled
- ▶ Industrial Performance
- ▶ Telecom Reliability
- ▶ Low Cost

IPG Photonics' Thulium Fiber Laser Systems are developed specifically to meet the growing demands of the industrial, medical and R&D markets for high power, compact, efficient, wavelength-selectable, CW sources of the spectral range of 1880 to 2050 nm. First manufactured in 1999, these laser systems have been field tested and deployed in a variety of R&D and medical applications. Now with higher powers and new options, the TLR Series provides the ideal solution for both laboratories, medical and industrial market segments.

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Thulium 500 W CW Fiber Laser

Optical Characteristics

Central Wavelength Range, nm	1900-2000, typ. 1940
Mode of Operation	CW/Modulated
Modulation Frequency, kHz	<1
Max Average Power, W	500
Power Tunability, %	10-100
Power Stability*, %	±1
Optical Noise**, % RMS	<2, typ. 1
Output Fiber Core Diameter, μm	50, 100, 200
Beam Parameter Product, mm × rad	<2, <5, <15

* Over 4 hours, T=const

** 10 kHz - 20 MHz

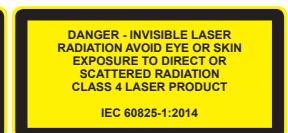
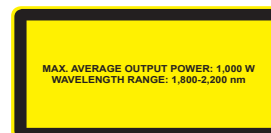
General Characteristics

Dimensions (W × D × H), mm	448 × 580 × 286
Weight, kg	<80
Cooling	Water-cooled
Supply Voltage, Single-phase 50/50 Hz, VAC	100-240
Power Consumption, W	<5000

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