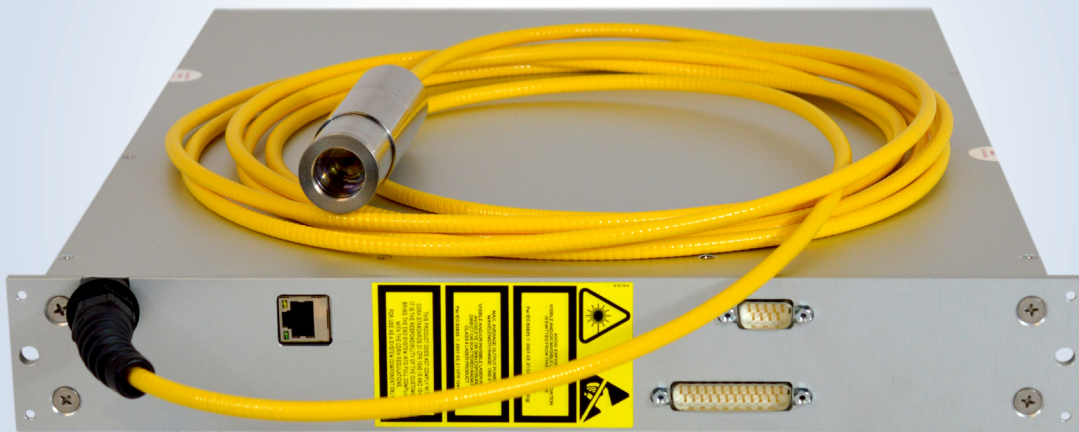


# TLM-120

## Thulium CW Fiber Laser Module



### Applications

- ▶ Medical Treatment
- ▶ Medical Surgery
- ▶ Plastic Materials Processing
- ▶ Other Non-metal Materials Processing
- ▶ Solid State IR Laser Pumping
- ▶ Pollution Control



### Features

- ▶ Compact Size
- ▶ High Wall-plug Efficiency
- ▶ Beam Quality  $M^2 < 1.1$  for Single-mode Version
- ▶ Wide Selection of Wavelengths
- ▶ Advantage over  $\text{CO}_2$  & Ho:YAG
- ▶ Cost-effective, Compact OEM Solution

IPG's new **Thulium Continuous Wave (CW) Fiber Laser Modules** are available in air-cooled units, 10-50 W or water-cooled modules, 50-120 W. These compact modules can be purchased for single-mode or multi-mode operation with wavelength range of 1900-2050 nm. IPG's Thulium modules are attractively priced for OEM's and integrators and serve a wide range of medical, materials processing and laser pumping applications.

# TLM-120

## Thulium CW Fiber Laser Module

### Optical Characteristics

Central Wavelength Range <sup>1</sup> , nm	1900-2000, typ. 1940
Linewidth FWHM, nm	<1
Mode of Operation	CW/ Modulated
Modulation Frequency, kHz	up to 1
Average Power <sup>2</sup> , W	120
Power Tunability, %	10-100
Power Stability <sup>3</sup> , %	±1
Optical Noise <sup>4</sup> , % RMS	1
Fiber Options, μm	Single-mode, 50, 100, 200
Beam Quality (Single-mode), M <sup>2</sup>	<1.1

<sup>1</sup> Custom central wavelengths are available upon request

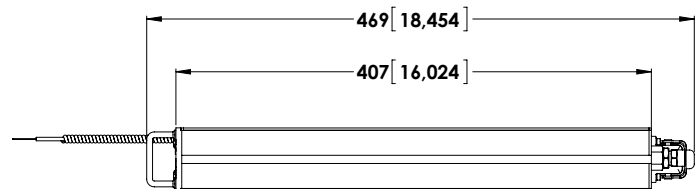
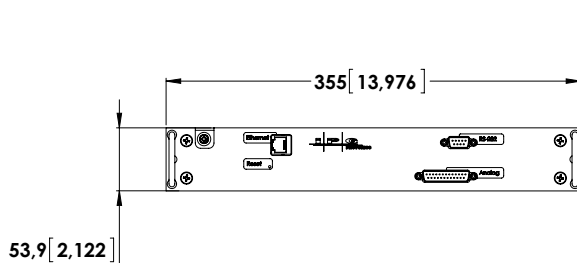
<sup>2</sup> 200 W Power is Available with Special Order

<sup>3</sup> Over 4 hours, T=const

<sup>4</sup> 10 kHz - 20 MHz

### General Characteristics

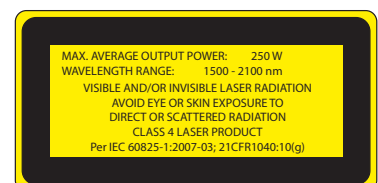
Module Dimensions, mm	355 x 407 x 54
Cooling	Water-cooled
Supply Voltage, VDC	48
Power Consumption, W	<1200



+1 (508) 373-1100; sales.us@ipgphotonics.com  
 +49 2736 44200; sales.europe@ipgphotonics.com (all European Inquiries)

[www.ipgphotonics.com](http://www.ipgphotonics.com)

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