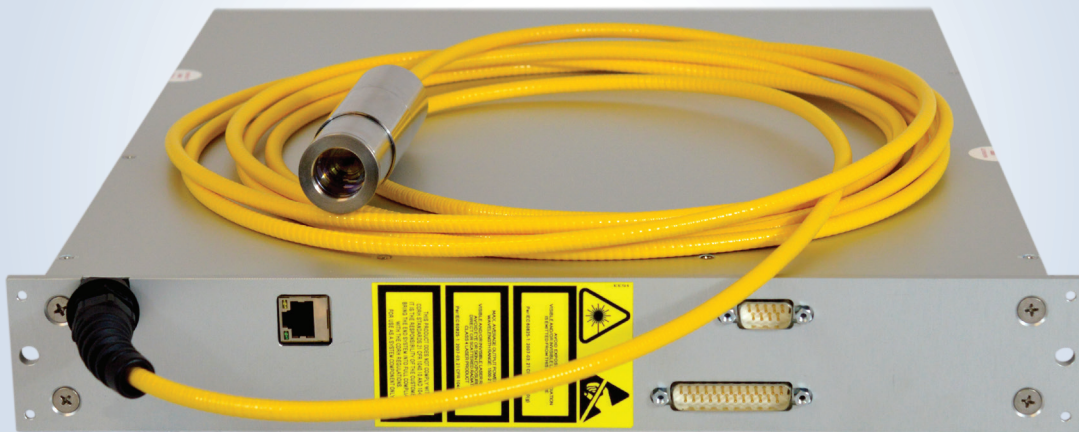


TLM-120

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 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 ¹ , nm	1900-2000, typ. 1940
Linewidth FWHM, nm	<1
Mode of Operation	CW/ Modulated
Modulation Frequency, kHz	up to 1
Average Power, W	120
Power Tunability, %	10-100
Power Stability ² , %	±1
Optical Noise ³ , % RMS	1
Fiber Options, μm	Single-mode, 50, 100, 200

Beam Quality (Single-mode), M² <1.1

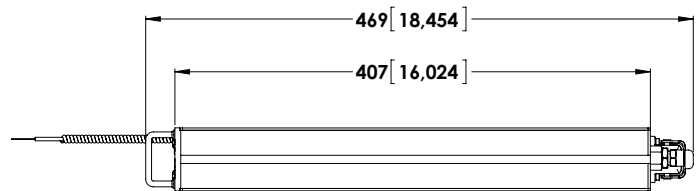
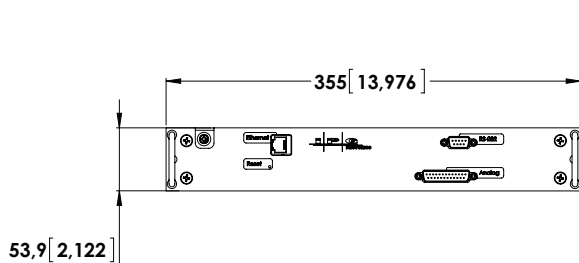
¹ Custom central wavelengths are available upon request

² Over 4 hours, T=const

³ 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



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MAX. AVERAGE OUTPUT POWER: 250 W
 WAVELENGTH RANGE: 1500 - 2100 nm
 VISIBLE AND/OR INVISIBLE LASER RADIATION
 AVOID EYE OR SKIN EXPOSURE TO
 DIRECT OR SCATTERED RADIATION
 CLASS 4 LASER PRODUCT
 Per IEC 60825-1:2007-03; 21CFR1040.10(g)