

# **TLM-200**

### **Thulium CW Fiber Laser Module**



#### **FEATURES**

- ▶ Compact Size
- ► High Wall-plug Efficiency
- ▶ Beam Quality M<sup>2</sup> <1.1
- ▶ Wide Selection of Wavelengths
- ▶ Advantage over CO₂ and Ho:YAG
- ▶ Cost-effective, Compact OEM Solution



#### **APPLICATIONS**

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



Thulium Continuous Wave (CW) Fiber Laser Modules are available in air-cooled units, 10-50 W or water-cooled modules, 50-200 W. These compact modules can be purchased for single-mode or multi-mode operation with wavelength range of 1900-2050 nm. IPG Thulium modules are attractively priced for OEM's and integrators and serve a wide range of medical, materials processing and laser pumping applications.

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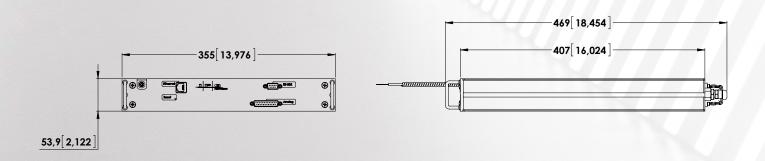
### **Thulium CW Fiber Laser Module**

| Optical Characteristics       |                      |  |
|-------------------------------|----------------------|--|
| Central Wavelength Range*, nm | 1900-2000, typ. 1940 |  |
| Linewidth FWHM, nm            | <1                   |  |
| Mode of Operation             | CW/Modulated         |  |
| Modulation Frequency, kHz     | up to 1              |  |
| Average Power, W              | 200                  |  |
| Power Tunability, %           | 10-100               |  |
| Power Stability**, %          | ±1                   |  |
| Optical Noise***, % RMS       | 1                    |  |
| Beam Quality, M <sup>2</sup>  | <1.1                 |  |

<sup>\*</sup> Custom central wavelengths are available upon request

<sup>\*\*\* 10</sup> kHz - 20 MHz

| General Characteristics           |                |
|-----------------------------------|----------------|
| Module Dimensions (W × D × H), mm | 355 × 407 × 54 |
| Cooling                           | Water-cooled   |
| Supply Voltage, VDC               | 48             |
| Power Consumption, W              | <1800          |
|                                   |                |





+1 (508) 373-1100;

IPGPhotonics.com/contact

## www.ipgphotonics.com

MAX, AVERAGE OUTPUT POWER: 400 W WAVELENGTH RANGE: 1,800-2,200 nm DANGER - INVISIBLE LASER RADIATION AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION CLASS 4 LASER PRODUCT

IEC 60825-1:2014

<sup>\*\*</sup> Over 4 hours, T=const