

# TLR FIBER LASER SERIES



## The Power to Transform® using Thulium CW Fiber Laser Modules

**NEW  
PRODUCT**

### Features:

- Compact Size
- High Wall-plug Efficiency 10%
- 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



### Typical Applications:

- Medical Treatment
- Medical Surgery
- Plastic Welding, Cutting & Marking
- Non-metal Materials Processing
- Solid State IR Laser Pumping
- Pollution Control

IPG's 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, single-mode CW sources of the spectral range of 1800 to 2100 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 laboratory, medical and industrial market segments.



## Model TLR Thulium Fiber Laser Modules

TLR-10      TLR-30      TLR-50      TLR-100      TLR-200

### 1.0 Optical Characteristics

Mode of Operation	CW				
Polarization State	Random				
Nominal Output Power, W	10	30	50	100	200
Output Power Tuning Range, %	15 - 100		10-100		
Output Power Stability, %	±1				
Emission Wavelength, nm	1900-2050				
Emission Linewidth	<1		<1.5		
Max. Modulation Frequency, kHz	1				
Fiber Options	Single-mode 50 μm 100 μm				

### 2.0 Electrical Characteristics

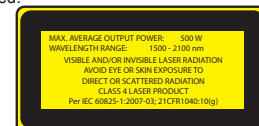
Supply Voltage	100 - 240 VAC			200 - 240 VAC	
Power	120	300	500	1000	2000

### 3.0 Electrical Characteristics

Cooling Method		Forced Air	Forced Air/ Water	Water
Dimensions, mm	AC (Air-cooled) WC (Water-	3 RU 19" 448 x 394 x 133	4 RU 19" 448 x 500 x 177 3 RU 19" 448 x 394 x 133	

**Legal notices:** All product information is believed to be accurate and is subject to change without notice. Information contained herein shall legally bind IPG only if it is specifically incorporated into the terms and conditions of a sales agreement. Some specific combinations of options may not be available. The user assumes all risks and liability whatsoever in connection with use of a product or its application. IPG, IPG Photonics, The Power to Transform and IPG Photonics' logo are trademarks of IPG Photonics Corporation. © 2012, 2013 IPG Photonics Corporation. All rights reserved.

+1 508.373.1100  
sales.us@ipgphotonics.com  
www.ipgphotonics.com



rev. 01/13