

BWC-FL-OEM Fiber Laser and Raman Fiber Laser



BWC-FL-OEM series fiber laser comes in Type I (TE cooled) and Type II (Non-cooled) packages, both of which are compact modules designed for OEM applications. It provides up to 20-Watts of single mode laser output in a standard SM fiber. The BWC-FL-OEM modules employ high brightness double-clad fibers, pumped by high power laser diode modules. Together with control electronics the high power fiber laser requires only a power supply for basic operations. By including high efficiency cascaded Raman resonators to the BWC-FL-OEM-1115, high power outputs at longer wavelengths are achieved. Standard and custom wavelengths are available covering a wide range of spectrum.

Highlights

- Available wavelengths of 1064 to 1500 nm
- Up to 20-Watt output power
- Standard single mode fiber pigtail
- High conversion efficiency
- High suppression ratio for side mode
- Compact in size

Applications

- Pumps for cascaded Raman resonators
- High power pump source for EDFA
- Remote pumping for in-line EDFAs
- Distributed Raman amplification
- Bandwidth extension for broadband DWDM
- High power industrial applications

Specifications

Optical

	-1064	-1115	-1290	-1318
Power Output (CW)	Up to 10 W	Up to 20W.	Up to 5W	Up to 5W
Center Wavelength	1064nm	1115nm	1290nm	1318 nm
	-1365	-1395	-1427	-1450
Power Output (CW)	Up to 5W	Up to 5W.	Up to 5W	Upto 5W
Center Wavelength	1365nm	1395nm	1427nm	1450 nm
	-1455	-1480	-1486	-1497*
Power Output (CW)	Up to 5W	Up to 5W.	Up to 5W	Upto 5W
Center Wavelength	1455nm	1480nm	1486nm	1497 nm

Noise	<1% RMS (0.1 Hz - 40 MHz)
Polarization	Random
Spectral Linewidth	<2nm
Side Mode Suppression	>15dB (Not applicable for -1064 and -1115)
Residual Energy in Side Modes	< 5% (Not applicable for -1064 and -1115)
Output Fiber	Single mode (SMF-28)

Electrical

Input Power	48 VDC
Control Interface	Analog control port via DB15 male connector
Operating Current Control Input	0 - 1.5 V DC
Operating Current Monitoring Output	1 V/A proportional to operating current
Output Power Monitoring Output	1 V/A proportional to output power
LD Temperature Monitoring Output	DC voltage; see accompanying look-up table
Power Consumption	60 - 200 W depending on output power and cooling

Mechanical

Dimensions	Type I: 196mm (D) x 144mm (W) x 56mm (H) Type II: 196mm (D) x 144mm (W) x 47mm (H)
Cooling	Type I: TE cooled and Type II: Non-cooled
Weight	5 lbs.

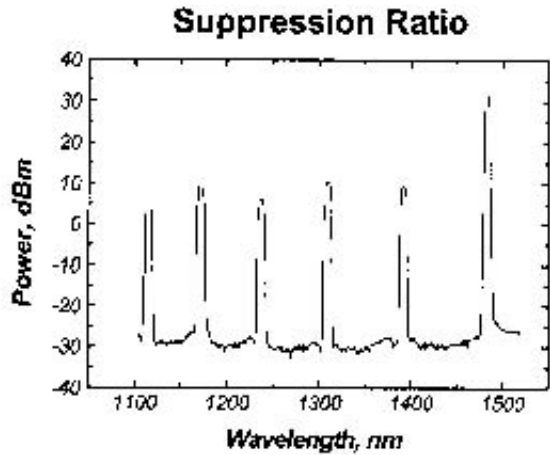
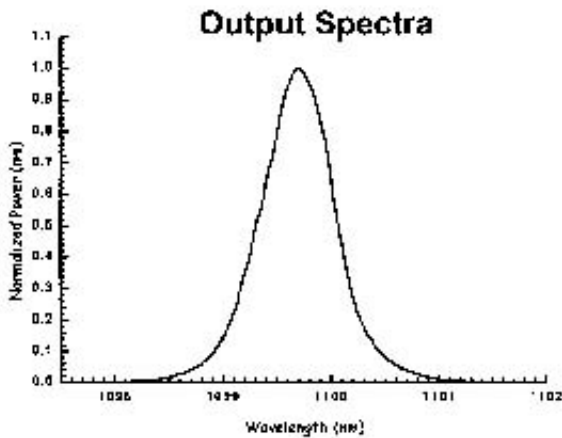
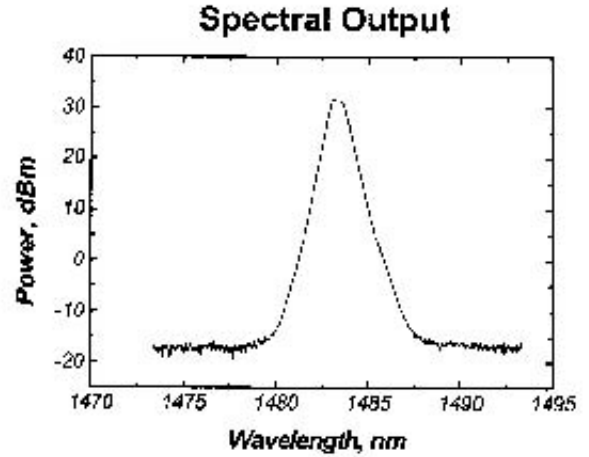
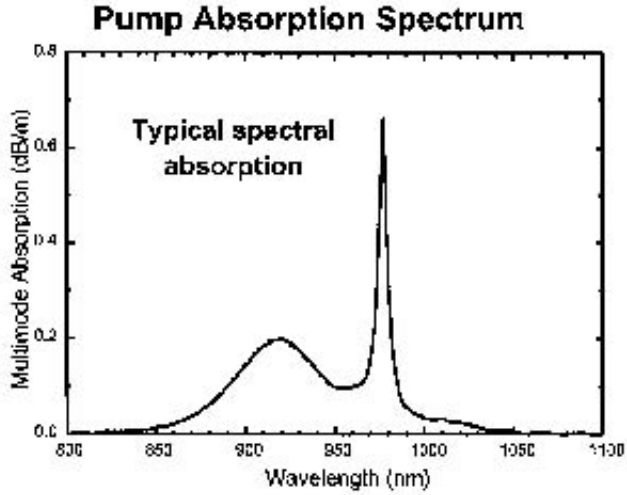
Environmental

Ambient Temperature	10 to 65 °C (Type I) or -5 to 70 °C (Type II)
Humidity	5-95%, non-condensing
Warm Up Time	Cold Start < 1 min.

* Custom wavelengths available upon request

**OEM Version: OEM modules are non-CDRH compliant devices. These modules are sold as component into other equipments. The purchasers assume responsibility to comply with US 21 CFR 1040 with regard to the use of this laser and its introduction into commerce. B&W TEK may provide additional assistances to help customers achieve the required CDRH compliance

Spectral Emission Curves

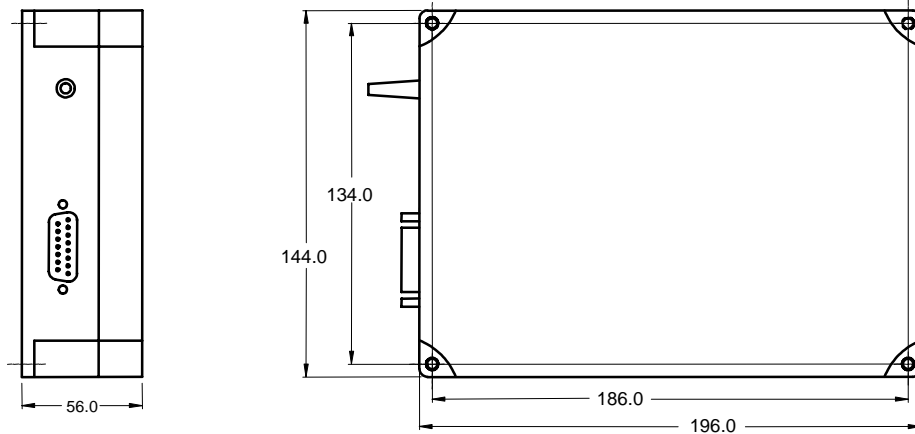


Yb Laser Absorption and Emission Spectra

Raman Fiber Laser Emission Spectra and Suppression Ratio

Dimensions

Type I



Type II

