



A Furukawa Company

Raman Fiber Laser Module



Features and Benefits

- Wavelengths available from 1150 to 1850 nm
- High output power, up to 150 W at 1480 nm
- Single-mode fiber output
- Additional powers available at different wavelengths
- 1480 nm Raman Laser optimized for pumping high performance EDFA's

Overview

Development of the new Raman Fiber Laser Module was driven by increasing demand for high power output over a broad wavelength range for a wide variety of industrial and scientific applications. The Raman Fiber Laser Module builds upon the TrueMode™ Fiber Laser Cavity family designed for kilowatt single-mode fiber lasers for industrial machining and welding. OFS, a global market leader in the design and manufacture of rare-earth doped fibers, possess the expertise and experience in fiber fabrication necessary to meet that demand. OFS has been developing and manufacturing high-power components and modules for many years and understands the reliability standards expected in the diverse material processing applications.

Raman Fiber Lasers serve as ideal high-brightness pump sources for other fiber and solid-state lasers. Specifically, the 1480 nm Raman Laser Module was designed for increasing the output power and pulse energy from Er-doped fiber amplifiers (EDFA). The single-mode 1480 nm output from the Raman Laser allows for in-band core pumping of an EDFA, shortening the active fiber length and increasing nonlinear thresholds. Pumping at 1480 nm also reduces the quantum defect, lowering the thermal load on the gain fiber. These advantages allow significant power scaling of the output from an EDFA.

Typical Applications

High Brightness Fiber Laser Pumping
Pump Source for Solid State Lasers
Medical Applications
Test and Measurement



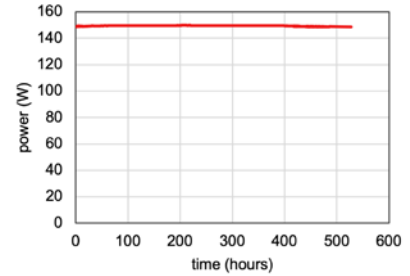
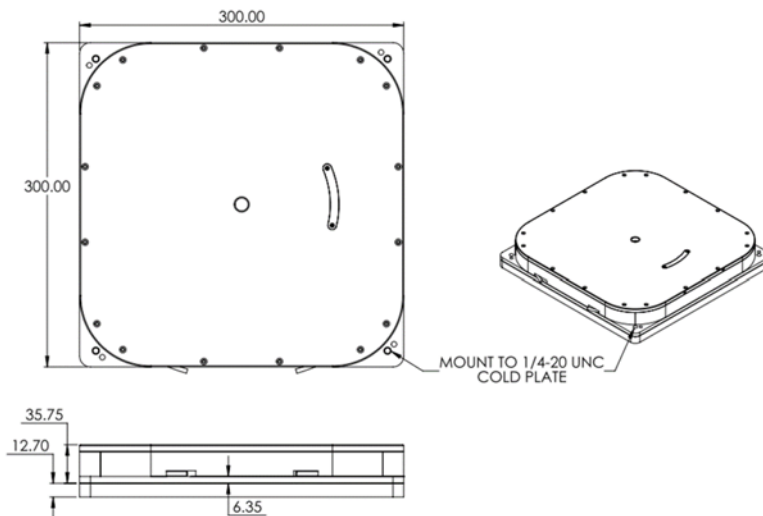
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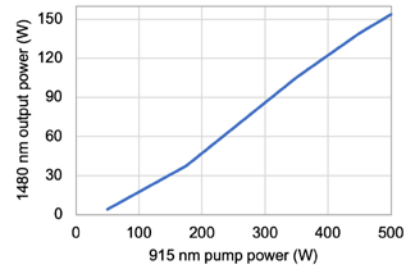
Product Specifications

In-band power*	20, 50, 100, 150 W @ 1480 nm
Available wavelengths	1150 to 1850 nm
Output fiber type	Single-mode
Output fiber clad diameter	125 μm
Output fiber buffer diameter	250 μm
Output fiber coating	High Index
Output fiber length	≥ 2 m
Coating diameter	250 μm
Output monitor photodiode	Included
Back-reflection monitor	Included
Cooling	Water cooled cold plate (optional)
Customer supplied	Diode modules and power supply

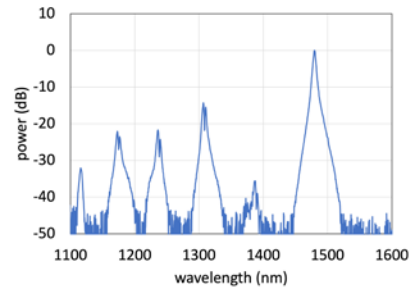
*1480 nm model. Power at other wavelengths may vary.



Power stability from 500-hour burn-in of a 150 W, 1480 nm Raman Fiber Laser



Performance of a 150 W, 1480 nm Raman Fiber Laser vs 915 nm pump power.



Output spectrum from a typical 1480 nm Raman Fiber Laser.



For additional information please contact your sales representative.

You can also visit our website at www.ofsoptics.com or call 1-888-fiberhelp (1-888-342-3743) USA or 1-770-798-5555 outside the USA.



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