

RA-1490-M



DEVICE

Single Band Raman Amplifier Module, 1490 nm

OVERVIEW

Optilab Raman Amplifier Module Units are designed for distributed Raman amplification in a narrow spectral range in C band. Configured with two high power pump laser diodes at 1490 nm, the RA-1490-M unit provides over 10 dB On/Off gain flattened amplification. The unit includes micro-controller based laser current control circuitry for enhanced stability and reliability. RA-1490-M is an ideal amplifier for single-channel to multi-channel long-haul transmission and fiber sensor systems. It is equipped with LabVIEW (TM) remote user interface for easy operation. Contact Optilab for more information.

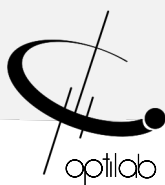
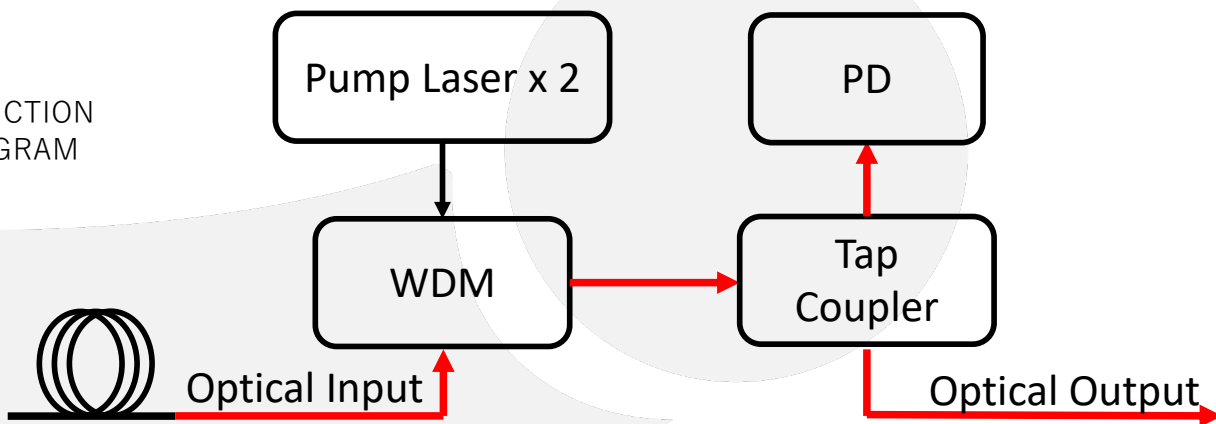
FEATURES

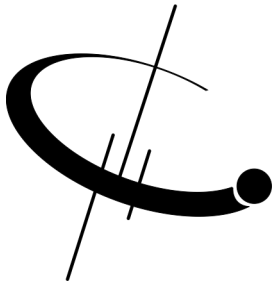
- >10 dB Gain @ -15 dBm Input
- >15 dB Gain @ -35 dBm Input
- Excellent Stability
- LabVIEW Remote Interface

USE IN

- Long Haul / Ultra-Long Haul Systems
- Long Repeaterless Links
- Low Latency Links
- 10 / 40 Gbps Transmission
- DWDM Networks

FUNCTION DIAGRAM





RA-1490-M

SPECIFICATIONS

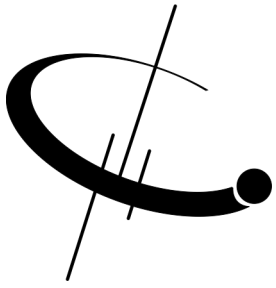
GENERAL

| | |
|--------------------------------------|-------------------------|
| Pump Wavelength | 1490 nm |
| Pump Power | Up to 400 mW |
| Input Signal Level | -40 to -10 dBm |
| Averaged On/Off Gain @ -15 dBm Input | > 10 dB |
| Averaged On/Off Gain @ -35 dBm Input | > 15 dB |
| Gain Flatness | < ±1 dB |
| Signal Insertion Loss | < 1 dB |
| Output Stability | < ± 0.1 dB for 24 hours |
| Degree of Polarization | < 5% |

MECHANICAL

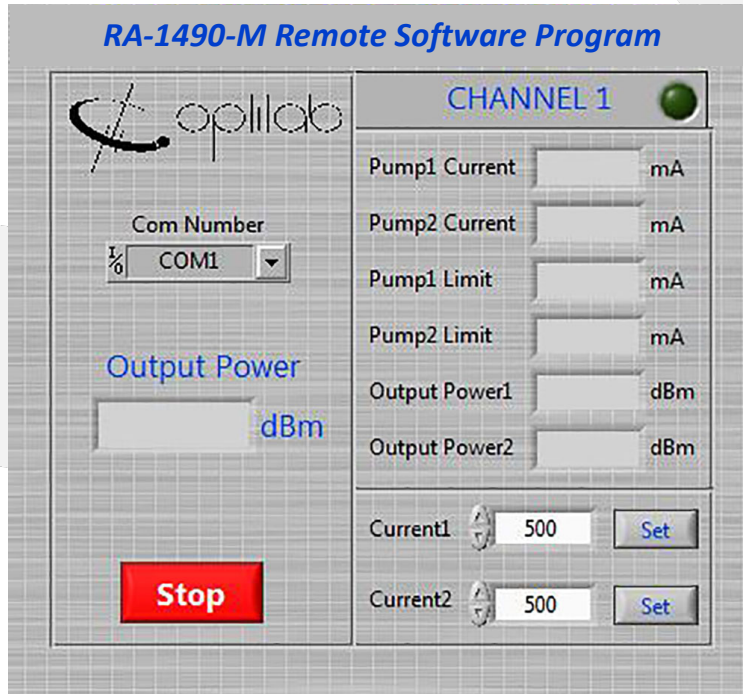
| | |
|------------------------|--|
| Operating Temperature | -5°C to + 55°C |
| Storage Temperature | -40 °C to 80 °C |
| Operating Humidity | 0% to 90% Relative Humidity |
| Power Supply | 110 – 240 VAC |
| Remote Port | USB 2.0 |
| Dimensions | 200 mm x 120 mm x 25 mm |
| Optical Input Fiber | SMF-28 with 3 mm Jacket (no connector) |
| Output Fiber Connector | FC/APC |





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LabVIEW Remote Control Interface



Typical Application Diagram

