



# RA-1455-M



## DEVICE

## Single Band Raman Amplifier Module, 1455 nm

## OVERVIEW

Optilab Raman Amplifier Rackmount Units are designed for distributed Raman amplification in a narrow spectral range in C band. Configured with two high power pump laser diodes at 1455 nm, the RA-1455-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-1455-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.

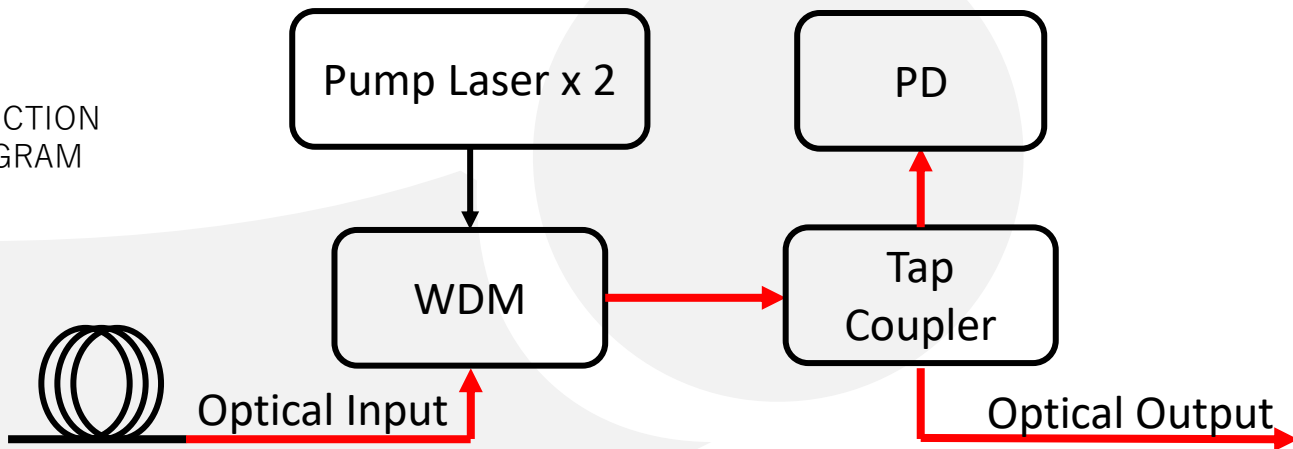
## FEATURES

- >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-1455-M

## SPECIFICATIONS

### GENERAL

|                                      |                         |
|--------------------------------------|-------------------------|
| Pump Wavelength                      | 1455 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

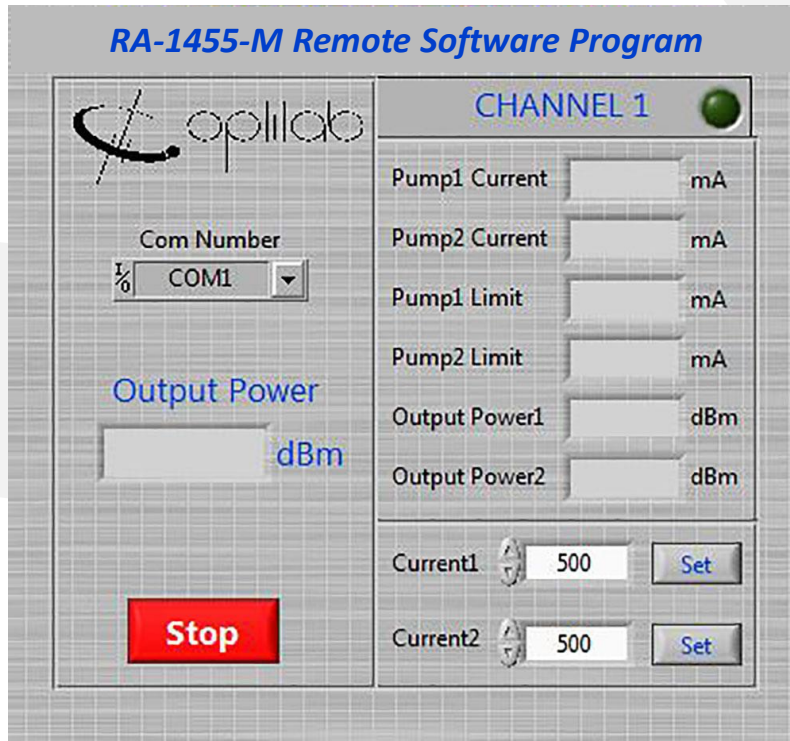
|                        |  |
|------------------------|--|
| Operating Temperature  | -5°C to + 55°C                         |
| Storage Temperature    | -40 °C to 80 °C                        |
| Operating Humidity     | 0% to 90% Relative Humidity            |
| Power Supply           | 110 – 240 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                                 |





# RA-1455-M

LabVIEW Remote Control Interface



Typical Application Diagram

