

# RA-1420-M



## DEVICE

## Single Band Raman Amplifier Module, 1420 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 1420 nm, the RA-1420-M unit provides over 10 dB On/Off gain flattened amplification at 1515 – 1540 nm. The unit includes micro-controller based laser current control circuitry for enhanced stability and reliability. RA-1420-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.

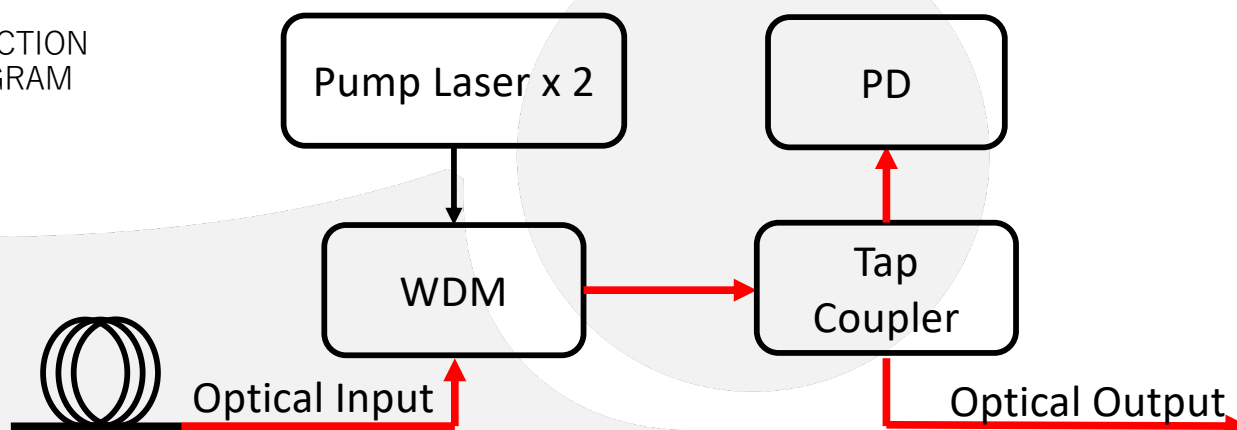
## FEATURES

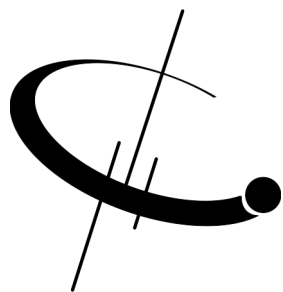
- >10 dB Gain @ -15 dBm Input
- >15 dB Gain @ -35 dBm Input
- Excellent Stability
- LabVIEW Remote Interface

## USE IN

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

## FUNCTION DIAGRAM





# RA-1420-M

## SPECIFICATIONS

### GENERAL

Pump Wavelength	1420 nm
Operating Wavelength	1515 - 1540 nm
Pump Power	Up to 500 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%

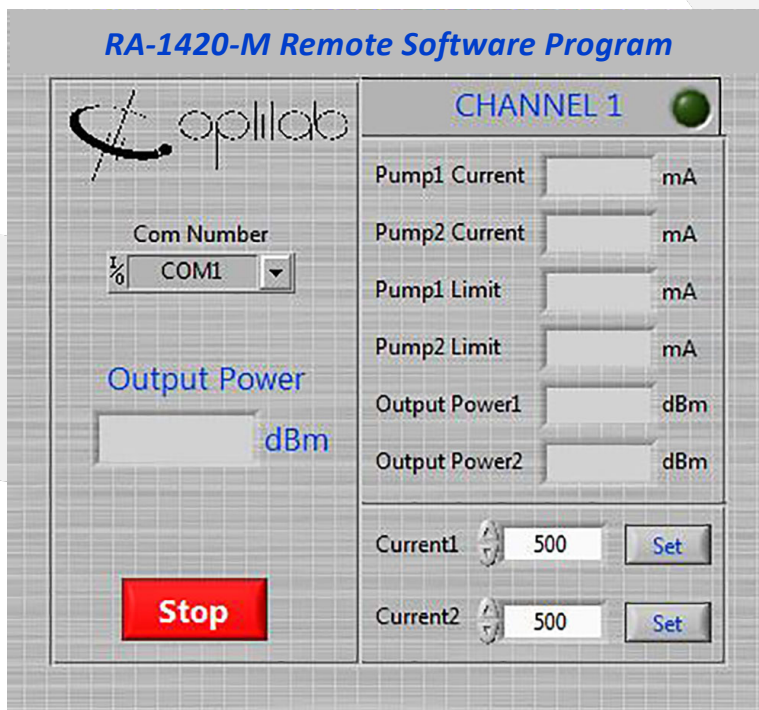
### MECHANICAL

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-1420-M

LabVIEW Remote Control Interface



Typical Application Diagram

