

RA-C2-15-R



DEVICE

15 dB Gain Raman Amplifier, 1535 nm to 1555 nm

OVERVIEW

Optilab Raman Amplifier Rackmount Units are designed for distributed Raman amplification in C-Band. The RA-C2-15-R unit provides over 15 dB On/Off gain flattened amplification from 1535nm to 1555nm, thus can support up to 50 DWDM channels. Each of the two pump channels is configured with two high power pump laser diodes and one polarization beam combiner (PBC). The unit includes micro-controller based laser current control circuitry for enhanced stability and reliability. RA-C2-15-R is an ideal amplifier for high channel count DWDM 40G/100G transmission and fiber sensor systems. It is equipped with LCD touch screen and LabVIEW (TM) remote user interface for easy operation. Contact Optilab for more information.

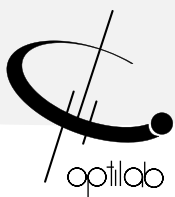
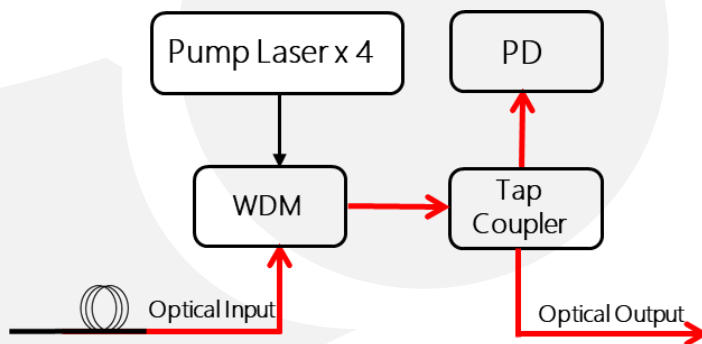
FEATURES

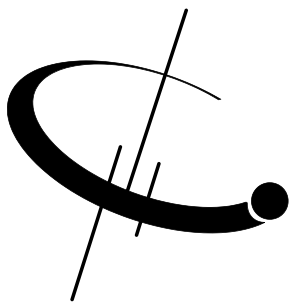
- 1535 nm – 1555 nm
- Over 15 dB On/Off Gain
- Gain flatness of $< \pm 1.5$ dB
- Excellent Stability
- Up to 50 DWDM Channels
- Touch Screen LCD & USB Interface

USE IN

- Long Haul / Ultra-Long Haul Systems
- Long Repeaterless Links
- Low Latency Links
- Multi-Channel DWDM Networks
- 40 / 100 Gbps Transmission

FUNCTION DIAGRAM





RA-C2-15-R

SPECIFICATIONS

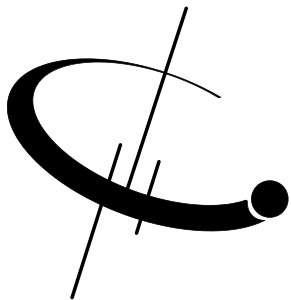
Pump Wavelengths	1435, 1455 nm
Operating Wavelength	1535 nm to 1555 nm
Input Signal Level	-40 to -10 dBm
Pump Power	Up to 750 mW
Averaged Gain @ -15 dBm Input	> 15 dB
Gain Flatness	< ±1.5 dB
Signal Insertion Loss	< 1 dB
Output Stability	< ± 0.1 dB for 24 hours
Degree of Polarization	< 5% for each channel

GENERAL

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	3U: 450 mm x 615 mm x 137 mm
Optical Input Fiber	SMF-28 with 3 mm Jacket (no connector)
Output Fiber Connector	FC/APC

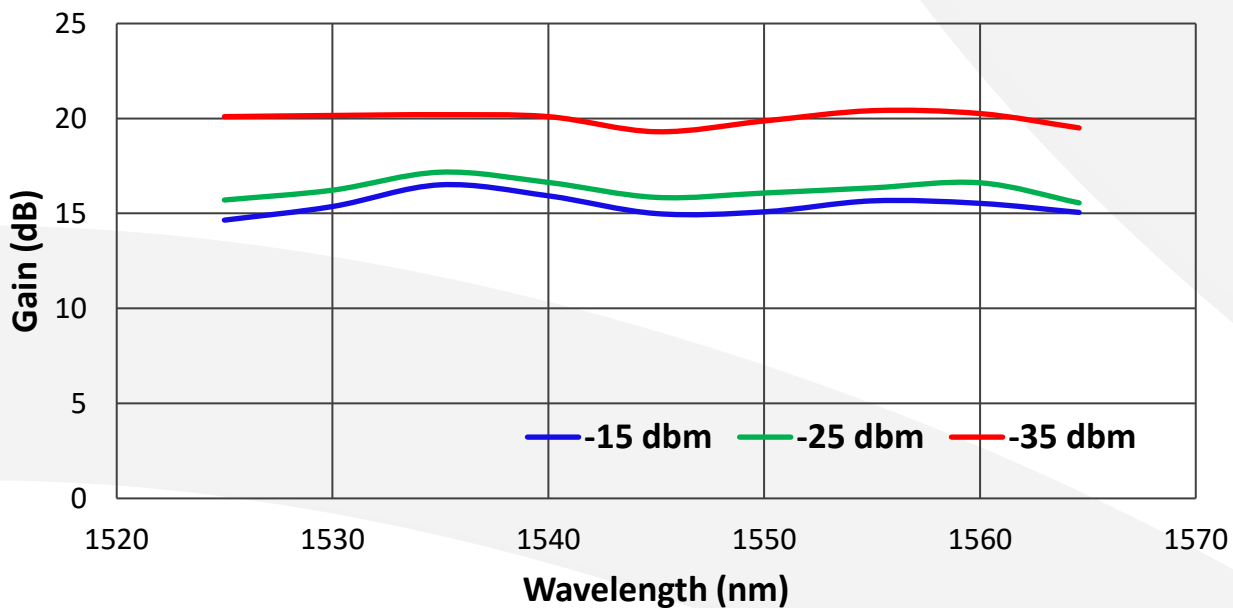
MECHANICAL



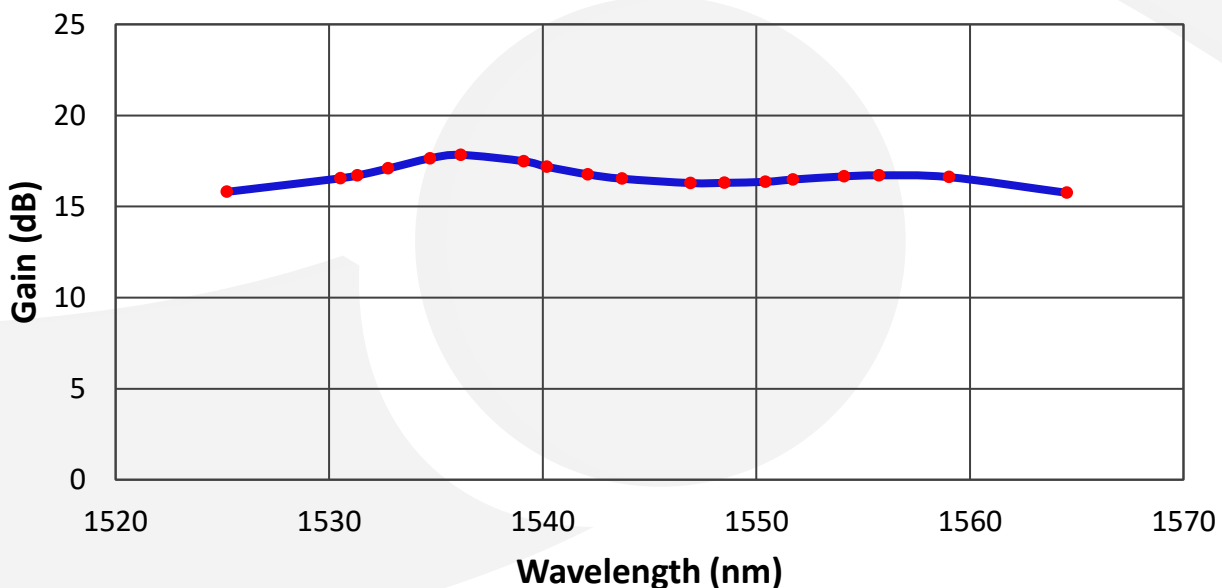


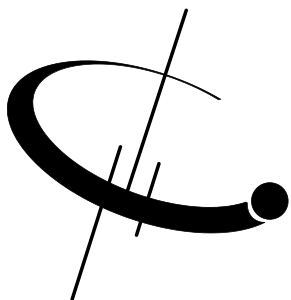
RA-C2-15-R

Typical On/Off Gain @ Different Input Power Levels



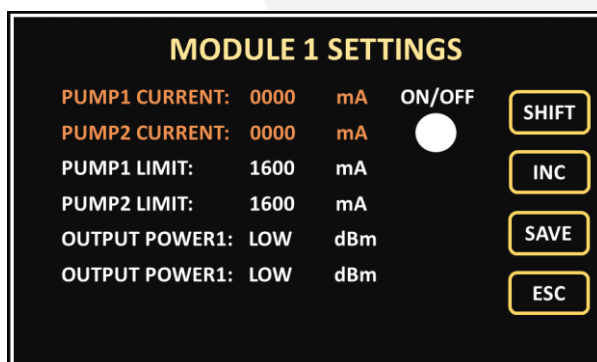
Multi-Channel DWDM On/Off Gain @ an Averaged Input Power of -25 dBm



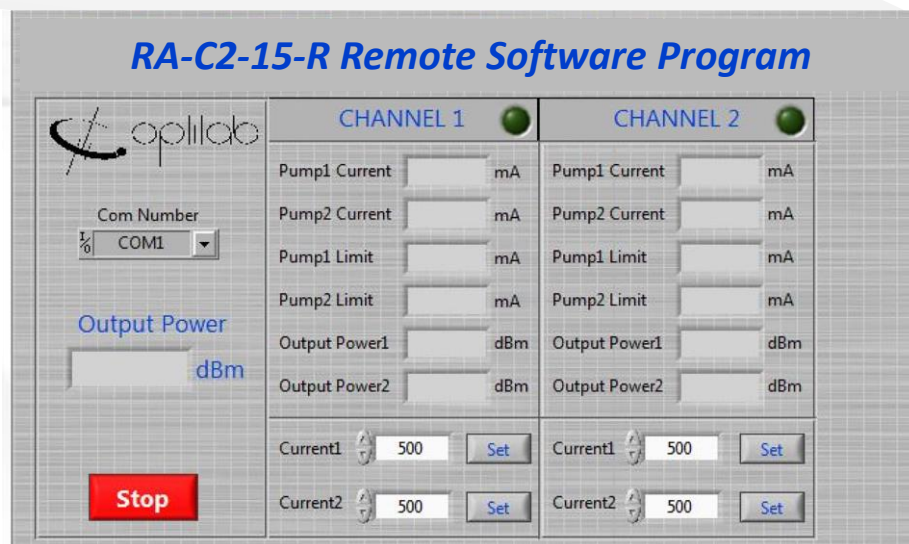


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Touch Screen Interface: easy adjustment of pump current settings



LabVIEW Remote Control Interface



Typical Application Diagram

