

# SOA-1490-R



## DEVICE

## Semiconductor Optical Amplifier, 1450-1600nm, Rackmount

## OVERVIEW

The Optilab SOA-1490-R is a semiconductor optical amplifier with high fiber-to-fiber gain, designed to be used in general applications to increase optical launch power to compensate for loss of other optical devices. The SOA- 1490-R can be ordered with Single Mode (SM) or Polarization Maintaining (PM) fiber input/output, with this particular SOA module having broadband amplification from 1450nm to 1600nm wavelengths, in a standard 1U rackmount housing. It requires only AC power cord with low power consumption, with a full software control and monitoring via RS232 serial communication protocol.

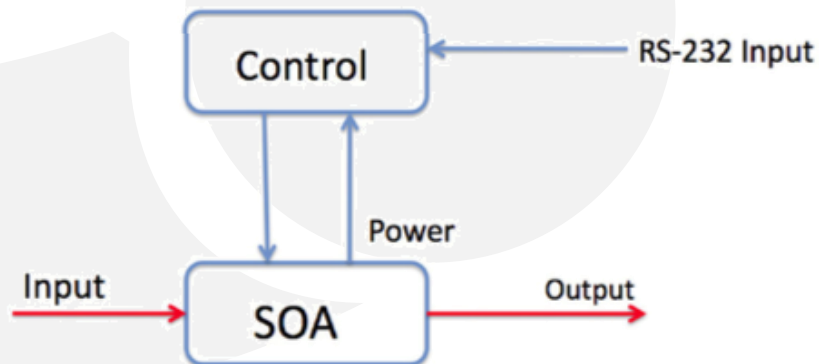
## FEATURES

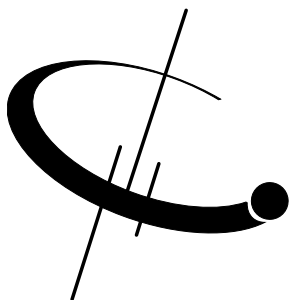
- Wideband 1450nm – 1600nm amplification
- High fiber-to-fiber gain 20 dB
- Up to 16 dBm output
- Standard 1U rackmount
- PM Panda fiber input/output (optional)
- 3-year warranty standard

## USE IN

- Booster and in-line amplification
- Optical network
- General purpose test and measurement
- Fiber sensing

## FUNCTION DIAGRAM





# SOA-1490-R

## SPECIFICATIONS

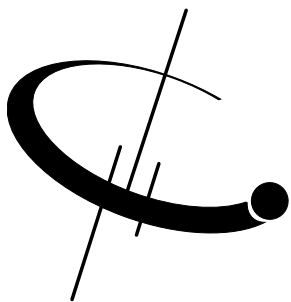
### GENERAL

Operating Wavelength	1450nm to 1600nm
Saturated Output Power @ -3 dB input	+16 dBm typ.
Input Power	-25 ~ +5 dBm
Fiber-to-fiber Gain	Up to 20 dB @ small signal input
Noise Figure	7 dB typ.
Gain Ripple	0.3 dB typ.
Input Optical Return Loss	-55 dB typ.
Input/Output Isolation	30 dB min. (w/ isolator option)
Polarization Dependent Gain (PDG)	0.5 dB max
Polarization Extinction Ratio (PM type)	20 dB typ.
Power Stability	± 0.1 dB over 8 hours
Output Current Control	10% to 100% operating current

### MECHANICAL

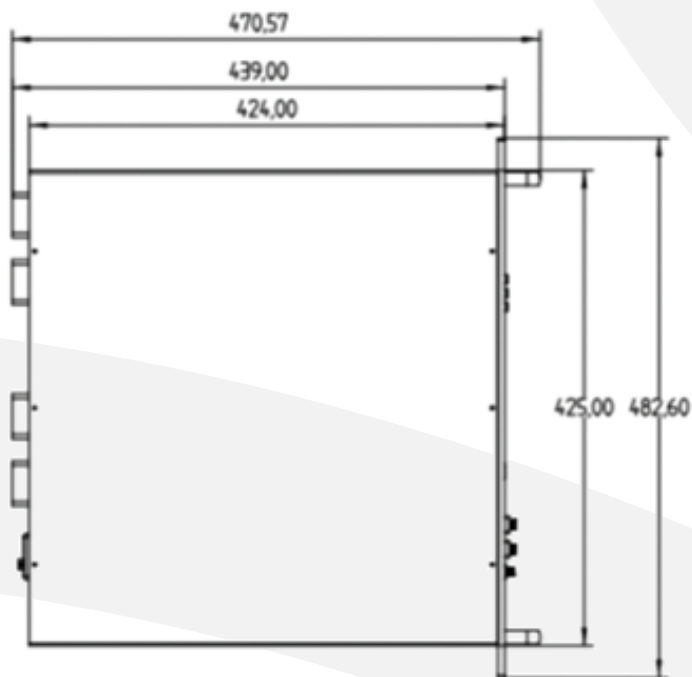
Operating Temperature	-10°C to +60°C
Storage Temperature	-40°C to +70°C
Power Supply Requirements	80 - 240 V, 43 - 63 Hz AC
Power Consumption	60 W max.
Output Level Control	Pump Lasers Current Adjustment
Monitoring	Pump Laser Temperature
Computer Interface	LabVIEW via USB
Display	Input/Output Power Level, TEC Temperature
Alarms	Temperature and Input Power
Optical Connectors	FC/APC, SC/APC, Other Types Optional
Housing Dimensions	1RU 482.60 (L) x 470.57 (W) x 44.00 (H) (mm)





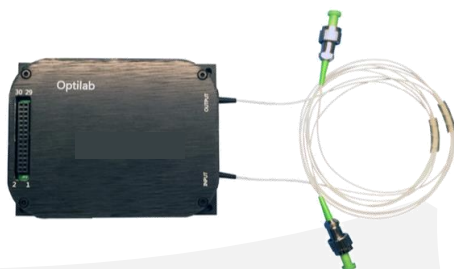
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## MECHANICAL DRAWING



## RELATED MODULE

- **SOA-1490-M**



The Optilab SOA-1490-M is a semiconductor optical amplifier with high fiber-to-fiber gain for OEM integration in MSA housing.

