

# SOA-1550-M



## DEVICE

## Semiconductor Optical Amplifier, 1450-1600nm

## OVERVIEW

The Optilab SOA-1550-M 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-1550-M 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 compact OEM module form factor based upon MSA requirements. This module version is an ideal building block for system integrators, especially in optical communication networks and CATV applications. It requires only a single +5V power supply 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
- Compact OEM design for MSA form factor
- PM Panda fiber input/output (optional)
- 3-year warranty standard

## USE IN

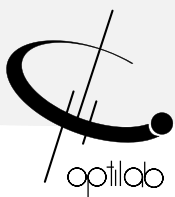
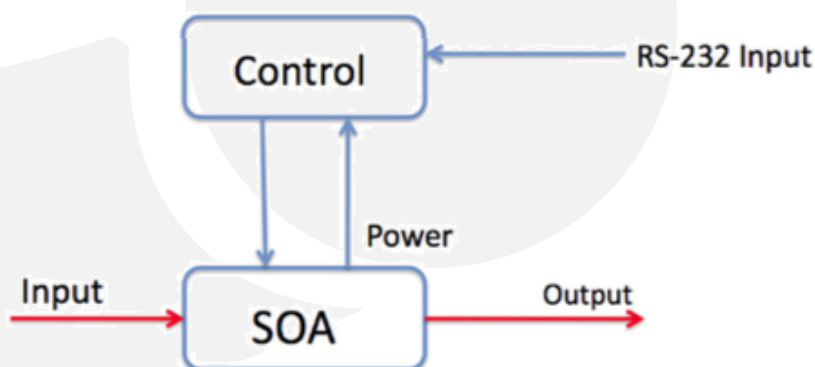
- Booster and in-line amplification
- Optical network
- General purpose test and measurement
- Fiber sensing

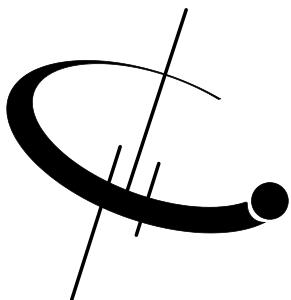
## OPTIONS

### SOA-1550-x-M

**X:** S: Single Mode, P: Polarization Maintaining

## FUNCTION DIAGRAM





# SOA-1550-M

## SPECIFICATIONS

Operating Wavelength	1450nm to 1600nm
Saturated Output Power @ -3 dB input	+16 dBm typ.
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

## GENERAL

## MECHANICAL

Operating Temperature	10 °C to +50 °C
Storage Temperature	-10 °C to +70 °C
Operating Humidity	0% to 85% Relative Humidity
Fiber Type (Standard)	SMF-28 Input, SMF-28 Output
Fiber Type (PM) Version	PANDA PM Input, PANDA PM Output
Controls/Monitoring	Input/Output Monitor, Current Control via RS-232
Alarms	Overheat Warning
Power Supply	5 V DC
Dimensions	90mm x 70mm x 19.7mm

## MECHANICAL DRAWING

