EDFA-LC-MSA

DEVICE

MSA EDFA Module, Low Power Consumption

OVERVIEW

The Optilab EDFA-LC-MSA Module with low power consumption (LC) is an ideal building block for photonic subsystems and OEM system integration. Using a specifically qualified FBG stabilized, uncooled pump laser, this LC version of the EDFA module is designed for minimal electrical power consumption and thermal loading. Under normal operating conditions, this module will draw less than 1.5 W of power and it requires only a single 5 VDC power supply for operation. Pump laser protection and alarms are equipped to ensure the reliability and safety of the EDFA-LC-MSA, and status monitoring and output power level adjustment is controllable via an RS-232 interface. Contact Optilab for more information.

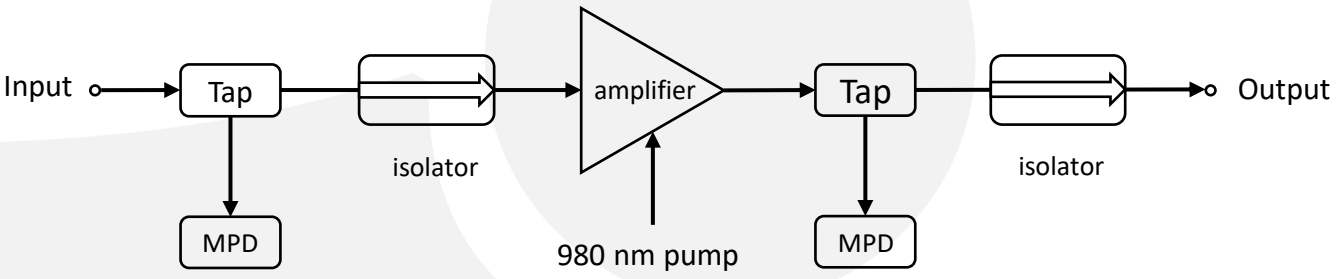
FEATURES

- Low Power Consumption
- RS-232 standard for remote control
- Wide wavelength operation range
- 30 dB gain
- MSA footprint
- Designed for low input level
- Single +5V power supply
- 10+ years of operation life

USE IN

- Photonic subsystems
- Fiber optic link amplification
- OEM integration for
  - DWDM networks
  - DFC/CATV
  - RFoG/PON

FUNCTIONAL DIAGRAM



EDFA-LC-MSA

SPECIFICATIONS

GENERAL

Operating Range	1528 nm – 1563 nm
Saturation Output Power	+15 dBm min. +16 dBm typical
Optical Gain	28 dB min. @ -30 dBm input
Noise Figure	4.5 dB typ., 5.0 dB max.
Optical Return Loss	50 dB min.
Input Optical Isolation	30 dB min.
Output Optical Isolation	30 dB min.
Polarization Mode Dispersion	0.1 ps max.
Polarization Dependent Gain	0.1 dB max.
Input Power Range	-40 dBm to +5 dBm
Output Power Stability	0.15 dB over 8 hours
Operation Mode	ACC
Input/Output Fiber Type	Corning SMF-28

MECHANICAL

Operating Temperature	-10°C to +50°C
Power Supply	+5 V DC, 0.3 A max.
Power Consumption	1.5 W max.
Fiber Type	SMF-28
Fiber Jacket	900 um loose tube
Connector Type	FC/APC
Connector (Power and Control)	2 x 15 pin header, 1.0 mm pitch
Remote Control	RS-232 for laser control, status monitoring
Dimensions	90 mm x 70 mm x 20 mm
Power Adapters	30 Pin to Molex and USB Adapter, included
Matching Power Supply	Optilab PS-5-M, optional accessory

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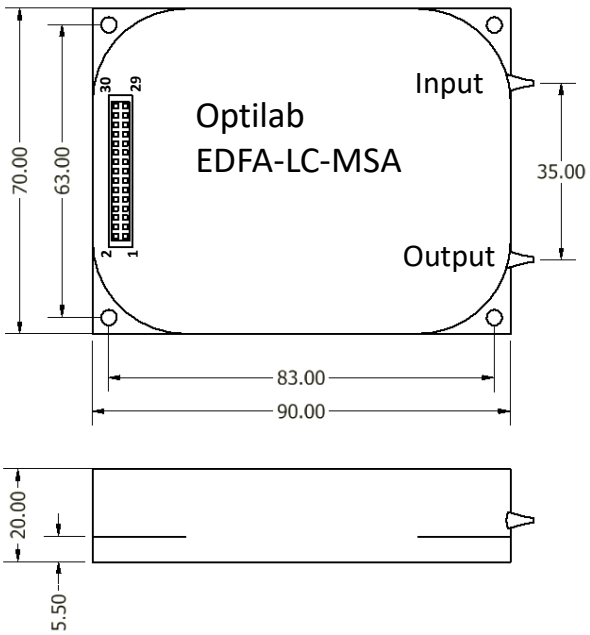
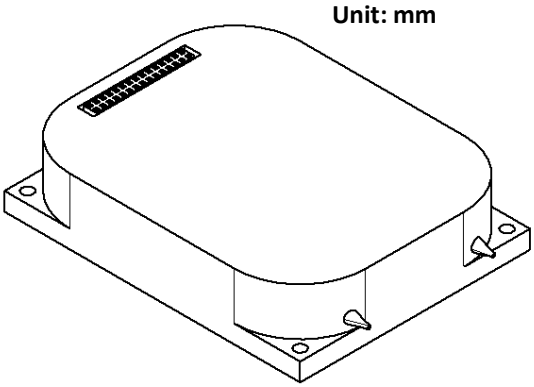
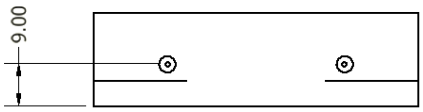
MECHANICAL DRAWING







ELECTRICAL PINOUT

PIN #	DESCRIPTION	PIN #	DESCRIPTION
1	+5V	2	+5V
3	NC	4	NC
5	GND	6	GND
7	RS232 RX, TTL	8	RS-232 TX, TTL
9	GND	10	GND
11	NC	12	NC
13	Amplifier Enable, active low, 3.3V LVCMOS	14	NC
15	Case Temp Alarm*, active high, 3.3V LVCOMS	16	NC
17	NC	18	NC
19	Loss of Input Alarm*, active high, 3.3V LVCMOS	20	Loss of Output Alarm*, active high, 3.3V LVCOMS
21	GND	22	GND
23	NC	24	NC
25	GND	26	GND
27	NC	28	NC
29	+5V	30	+5V

* Alarm function is disabled in the firmware.

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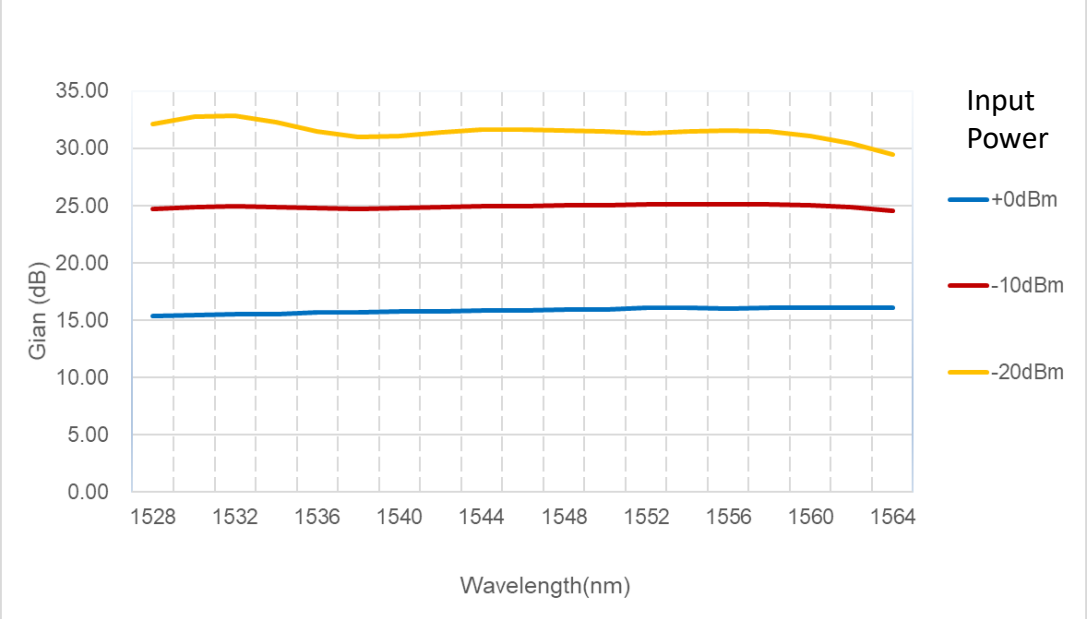
GAIN SPECTRUM



ACCESSORIES

5V Power Adapter (Included)

30 PIN Cable (Included)

Adapter Box (Included)