EDFA-PA-LN-M

DEVICE

Low Noise, High Gain Pre-Amp EDFA Module

OVERVIEW

The Optilab EDFA-PA-LN-M Pre-Amp EDFA is a low noise and high-gain module for amplifying low input level signals that is an easy-to-use and cost-efficient solution for photonic subsystems, OEM integration, free space communication, and satellite/ground link. Using a dual stage design, this module provides over 50 dB gain with maximum 4.5 dB noise figure and is designed to amplify signal with a low input level as low as -60 dBm. Software control is standard via an RS-232/485 port for status monitoring and pump laser protection are designed to ensure the reliability of the device. The EDFA-PA-LN-M requires a single ±5 Volt DC power supply for operation that comes included with each unit. Contact Optilab for more information.

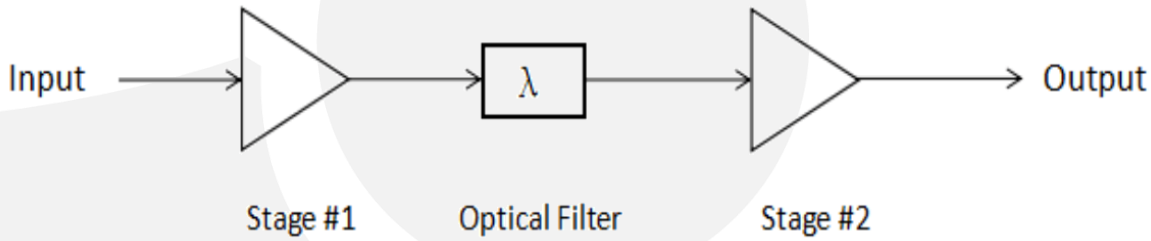
FEATURES

- Optical gain up to 50 dB
- Low noise figure < 4.5 dB
- Low input Level to -60 dBm
- RS-232/485 for remote control
- Wide wavelength range
- Space Qualification Available

USE IN

- Subsystem Integration for optical links
- Free Space Communication
- Satellite/Ground Link
- Research Development

FUNCTION DIAGRAM



EDFA-PA-LN-M

OPTIONS

EDFA-PA-LN-XX-M

XX: Gain

40	40 dB
50	50 dB

SPECIFICATIONS

GENERAL

Center Wavelength	1540nm to 1566nm
Operating Window	± 1.0 nm typ. (customizable)
Output Power Levels	10 dBm max.
Optical Gain	50 dB typ.
Noise Figure	4.0 dB typ., 4.5 dB max.
Optical Return Loss	50 dB min
Input/Output Optical Isolation	30 dB min.
Polar. Mode Dispersion	0.1 ps max.
Polar. Dependent Gain	0.1 dB max.
Input Power Range	-60 dBm to -40 dBm
Output Power Stability	0.1 dB over 8 hours

MECHANICAL

Operating Temperature	-10 °C to +70 °C
Storage Temperature	-45 °C to +85 °C
Operating Humidity	90%, non-condensing
Power Supply	+5 V DC, 5.0 A max.
Power Consumption	20 W max.
Fiber Type	SMF-28
Fiber Jacket	900µm
Connector Type	FC/APC or others
Connector (power & control)	DB-25 Male
Display	LEDs for On/Off, Power
Remote Control	RS-232/485
Dimensions	150mm x 125mm x 23mm

EDFA-PA-LN-M

FUNCTIONAL DIAGRAM