



## Dual Pump Erbium-Doped Fiber Amplifier, L-Band, Benchtop

### OVERVIEW

The Optilab EDFA-L-XX-R Erbium-Doped Fiber Amplifier (EDFA) is a dual pump, versatile amplifier designed for optical communication and other general-purpose optical applications. By using a dual pump laser (980nm & 1480nm) amplifier design with high efficiency, EDFA-L-XX-R provides optical gain up to 35 dB, while maintaining low noise figure (NF) of 5 dB. The EDFA-L-XX-R amplifier produces optical output levels up to +23 dBm with an input power level range from -12 dBm to +7 dBm. Featuring adjustable output level power via ACC through the front panel and software control through USB in a standard 1U rackmount. Contact Optilab for more information.

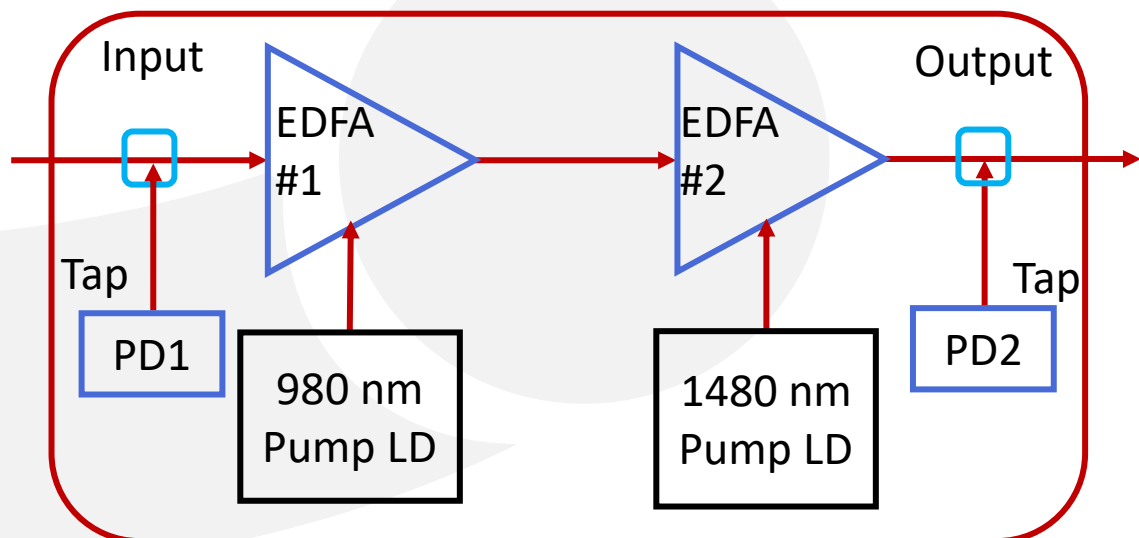
### FEATURES

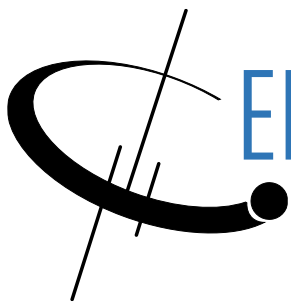
- Up to +23 dBm output power
- Dual Pump Design
- Optical gain up to 35 dB
- Input power range: -12 dBm to +7 dBm
- Automatic Current Control (ACC)
- Software control through USB

### USE IN

- Optical Communication
- Test and measurement
- Pulse Amplification
- General-purpose optical amplifier

### FUNCTIONAL DIAGRAM





# EDFA-L-XX-R

## SPECIFICATIONS

### OPTICAL

|                                |                               |
|--------------------------------|-------------------------------|
| Operating Range                | 1568 nm - 1605 nm             |
| Output Power Levels            | Up to +23 dBm                 |
| Input Power Range              | -12 dBm to +7 dBm             |
| Optical Gain                   | Up to 35 dB @ -10 dBm input   |
| Noise Figure (NF)              | < 5.0 dB typ. @ -10 dBm input |
| Optical Return Loss            | 50 dB min.                    |
| Input/Output Optical Isolation | 30 dB min.                    |
| Polarization Mode Dispersion   | 1.0 ps max.                   |
| Polarization Dependent Gain    | 0.10 dB max.                  |
| Output Power Stability         | 0.10 dB over 8 hours          |
| Input/Output Fiber Type        | Corning SMF-28                |

### 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., Other Option Available              |
| Housing Dimensions        | IRU 482.60 (L) x 470.57 (W) x 44.00 (H) (mm) |

### ORDERING OPTIONS

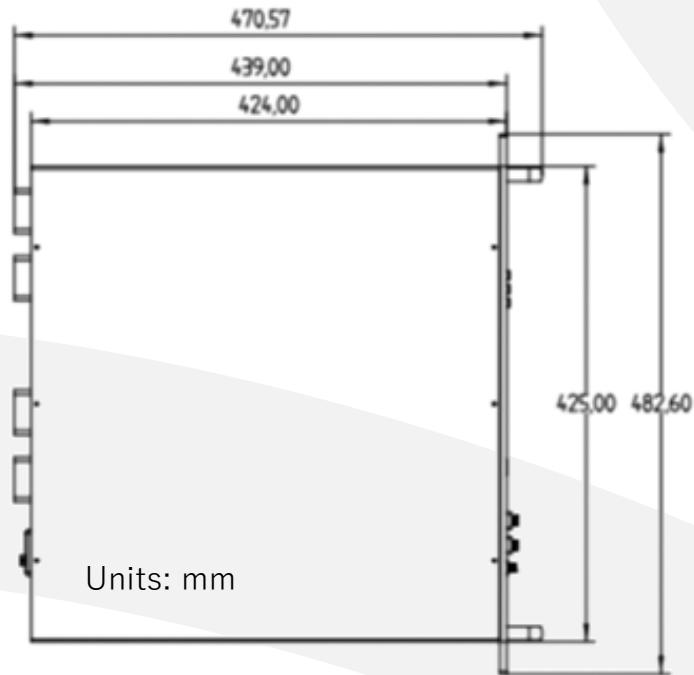
#### **EDFA-L-XX-R**

**XX** Output Power Level: 22, 23 dBm



# EDFA-L-XX-R

## MECHANICAL DRAWING



## RELATED BENCHTOP

- **EDFA-L-XX-B**



The Optilab EDFA-L-XX-B is a high-gain EDFA in a benchtop, featuring front panel touch screen control. PM version is also available upon request.