



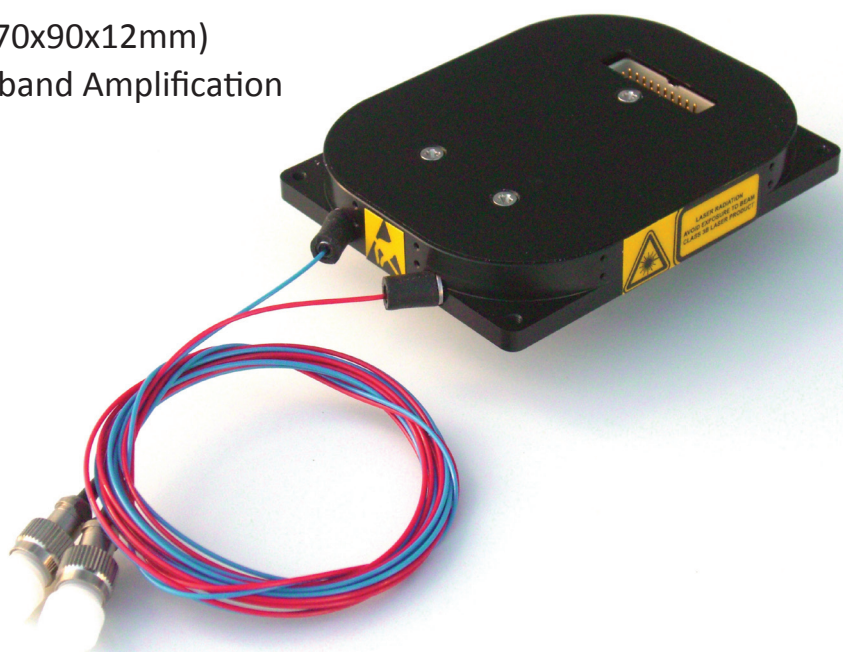
HIGH Power Fiber Technology



Compact EDFA

Features:

- Output Power up to +20 dBm
- Industry Standard Form Factor (70x90x12mm)
- Gain-Flattened Version for Wideband Amplification
- Uncooled Pump Option
- Telcordia Qualified
- ROHS Compliant



Applications:

- Long Haul and Metro Networks
- Transmitter and Receiver Amplification
- Single Channel, Narrowband and Wideband DWDM

The Manlight compact EDFA is field proven and offers excellent optical performance and reliability. The compact EDFA gain block is intended for DWDM applications in the C- & L-band wavelength range. It can be optimized to perform as a booster, line or pre-amplifier in DWDM systems and subsystems for metro and long haul applications. The gain block contains input and output monitor diodes and isolators. The EDFA can be configured to use an uncooled pump laser that enables low power consumption which allows system designers to achieve compact solutions, lower costs and flexibility in system design.

Optical Characteristics

| Parameter | Booster Single-Channel | Pre-Amp Single-Channel | Gain - Flattened | Unit |
|------------------------------------|---------------------------|---------------------------|---------------------|------|
| Wavelength Range | 1529 - 1565 | 1529 - 1565 | 1529 -1565 | nm |
| Maximum Output Power | +20 | +5 | +20 | dBm |
| Input Power Range | -10 to +4 | -30 to -10 | -25 to -5 | dBm |
| Nominal Gain | 20 | 30 | 25 | dB |
| Gain Flatness (typ) @ Nominal Gain | N/A | N/A | 1.0 | dB |
| Gain Flatness (max) @ Nominal Gain | N/A | N/A | 1.5 | dB |
| Noise Figure (typ) @ Nominal Gain | 5.0 | 5.0 | 5.0 | dB |
| Noise Figure (max) @ Nominal Gain | 5.5 | 5.5 | 5.5 | dB |
| Polarization Mode Dispersion | 0.3 | 0.3 | 0.3 | ps |
| Polarization Dependent Gain | 0.3 | 0.3 | 0.4 | dB |

Electrical & Environmental Characteristics

| | | | | |
|---------------------------------------|------------|-----------|-----------|------|
| Power Consumption (typical / max EOL) | 4.0 / 8.0 | 2.0 / 3.0 | 4.0 / 8.0 | W |
| Power Consumption (Uncooled version) | 1.0 / 1.5 | 0.5 / 1.0 | 1.0 / 1.5 | W |
| Operating Case Temperature | 0 to +70 | | | °C |
| Storage Temperature | -40 to +85 | | | °C |
| Operating Humidity (non-condensing) | 5 - 95 | | | % RH |

Electrical Pin-Out

The electrical connector is a 20-pin male connector.

| Pin # | Description | Pin # | Description |
|-------|--------------------------|-------|---------------------------------|
| 1 | GND | 11 | Thermoelectric Cooler, Positive |
| 2 | Input Monitor Cathode | 12 | Thermoelectric Cooler, Positive |
| 3 | Input Monitor Anode | 13 | Thermoelectric Cooler, Positive |
| 4 | Output Monitor Cathode | 14 | Thermoelectric Cooler, Negative |
| 5 | Output Monitor Anode | 15 | Thermoelectric Cooler, Negative |
| 6 | Thermistor | 16 | Thermoelectric Cooler, Negative |
| 7 | Laser Diode Anode | 17 | GND |
| 8 | Laser Diode Anode | 18 | Thermistor |
| 9 | Backface Monitor Cathode | 19 | Laser Diode Cathode |
| 10 | Backface Monitor Anode | 20 | Laser Diode Cathode |

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