

## PRODUCT BRIEF

### KEY FEATURES

- ▶ Very low power consumption (uncooled pump)
- ▶ Micro 45x70x12 mm form factor
- ▶ Up to 16 dBm output power
- ▶ Fast power transient suppression for stable output power
- ▶ Can support G.657 low bend radius fiber pigtails
- ▶ Pre-amplifier or booster configuration

### APPLICATIONS

- ▶ Pre-amp or Booster for 40 Gb/s and 100 Gb/s transponder line cards
- ▶ Very long reach 10 Gb/s applications
- ▶ Submarine networks
- ▶ Military and industrial applications requiring small size and low power consumption
- ▶ Single channel networks

### OVERVIEW

Finisar's Single Channel Micro EDFA is a cost-effective micro processor-controlled module for amplifying single channels in the C-band. The amplifier is provided in a micro 45x70x12 mm package, and exhibits low power consumption allowing it to be easily integrated onto space and power constrained transponder line cards. The EDFA can be configured as either pre-amplifier or booster.

In order to support 40 Gb/s and 100 Gb/s applications, the amplifier provides excellent broadband noise performance. Fast transient suppression circuitry is also provided, allowing the amplifier output power to be kept constant when there are fast changes in input power.



## KEY OPTICAL SPECIFICATIONS

| Parameter                        | Specifications |           |          | Remarks   |
|----------------------------------|----------------|-----------|----------|---|
|                                  | Min.           | Max.      | Units    |   |
| Wavelength Range                 | 1528.77        | 1567.13   | nm       |   |
| Input Power Range                | -10            | 5         | dBm      |   |
| Output Power Range               | 0              | 16        | dBm      |   |
| Operational Gain                 | 5              | 26        | dB       |   |
| Noise Figure                     |                | 6.5<br>11 | dB<br>dB | At -10 dBm input with 26dB signal gain<br>At 5 dBm input with 5 dB signal gain          |
| Transient Overshoot / Undershoot | -0.5           | 0.5       | dB       | Rise / fall time > 1msec, Input power change < 6 dB, Signal output power (APC) = +16dBm |
| Power consumption                |                | 2.5       | W        | Over case temp range to EOL   |
| Power Supply                     | 2.97           | 3.63      | V        |   |
| Operating Case Temperature       | 0              | 70        | °C       |   |
| Storage Temperature Range        | -40            | 85        | °C       |   |
| Dimensions (WxHxD)               | 45x70x12       |           | mm       |   |
| Laser safety                     | Class 1M*      |           |          |   |

\* Class 1M products are not hazardous under normal circumstances, but may pose an eye hazard when the laser output is viewed with certain optical instruments (for example eye loupes, magnifiers and microscopes) within a distance of 100 mm

