

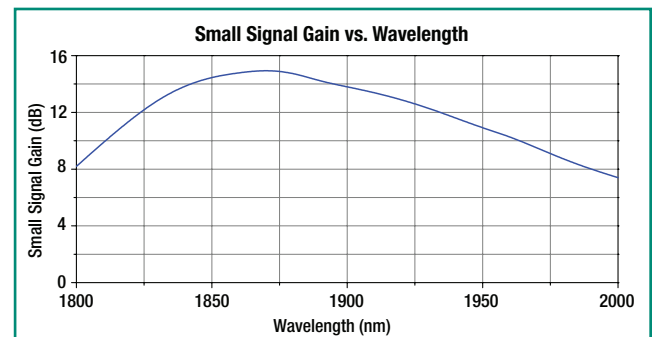
Thulium-Doped Fiber Amplifier

The TDFA-1900 Thulium-Doped Fiber Amplifier, which is manufactured by PicoLuz, a Strategic Partner of Thorlabs, offers small signal gain over a broad, 1800 nm to 2000 nm wavelength range. To span this wide range in an all-fiber device, the amplifier uses broadband fiber components. The core-pumped amplifier is ideal for amplifying low-power inputs with high optical signal-to-noise ratios. These characteristics make the amplifier well suited for amplifying broadly tunable and stable semiconductor seed sources to power levels up to 100 mW.

The amplifier is designed using a core-pumped gain fiber such that the amplification band matches the tuning range of Thorlabs' Tunable Laser Kits, TLK-L2000R and TLK-L2000M. These InP-based seed sources provide single frequency, broadly tunable lasing with excellent stability and high polarization extinction ratios. The TDFA-1900 amplifier increases the power from these sources while maintaining a single-frequency output with a high polarization extinction ratio, making it excellent for use in applications such as absorption spectroscopy and nonlinear optics.

Due to the amplifier's short fiber length, it can be used with short-pulse amplification. Additionally, its broad amplification band makes it suitable for use with broadband ASE sources.

| Specs | PARAMETER | |
|-------|---------------------------------------|------------------|
| | Small Signal Gain at Peak Wavelength | >15 dB |
| | Small Signal Gain Peak Wavelength | 1880 ± 20 nm |
| | Small Signal Gain 3 dB Bandwidth | >110 nm |
| | Small Signal Gain from 1800 - 2000 nm | >7.5 dB |
| | Saturation Power (at Peak Wavelength) | >19 dBm (>80 mW) |



Features

- Broad, 1800 - 2000 nm Gain Region
- Excellent for Small Signal Amplification
- Short Gain Fiber Length Ideal for Short Pulse Amplification

Applications

- Spectroscopy
- Nonlinear Optics
- Mid-IR Generation
- Broadband ASE Sources
- Component Test and Measurement
- Gas Sensing
- Free-Space Communication

For more information or to place an order, contact one of our Customer Support Specialists at 973-300-3000 or visit www.thorlabs.com.