

High Power EDFA for Free-Space Communication Application

Key Features

- Fiber coupled output up to 30W
- Eye-safe wavelength in 1550nm range
- Narrow linewidth operation
- Turnkey device
- RS232/Ethernet interface

2U Rackmount Casing

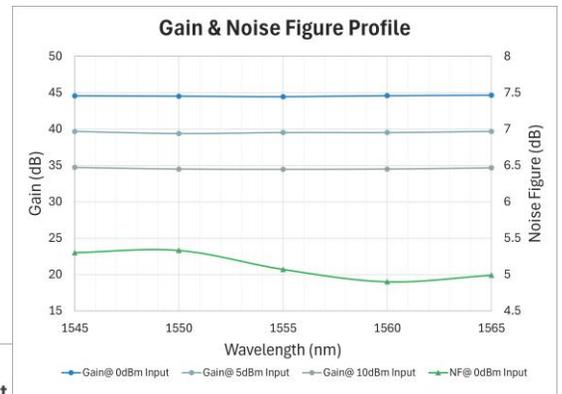


1550nm - CW

Description

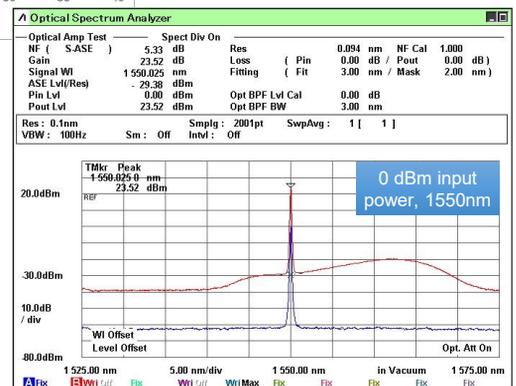
Amonics' High Power EDFA series offers eye-safe, single mode fiber amplifier. This high-power EDFA platform is widely used as a reliable optical amplifier in research environments where thermal stability, spectral integrity, and repeatable performance are critical — particularly in hollow-core fiber characterization and space optical communication research.

The turnkey microprocessor-controlled EDFAs provide illustrative alarms and status indicators. An integrated RS232 computer interface enables easy control, diagnostic functions and data acquisition.



Application

- Ground-to-satellite optical communication
- Hollow-core fiber testing
- High-capacity optical transmission experiments



ISO 9001 : 2015
Certificate No.: CC 5346

Our product is manufactured under a HKQAA ISO 9001 certified quality management system. The ISO 9001:2015 certification applies to the Hong Kong production site only.

High Power EDFA for Free-Space Communication Application

Specifications

| Model | AEDFA-45 |
|------------------------------|----------------------------------|
| Mode of Operation | CW Mode |
| Saturated Output Power | Min. 28 W, Typ. 30 W |
| Input Wavelength | 1545 nm to 1565 nm |
| Input Signal Level | 0 to +13 dBm |
| Noise Figure | Max 6.5 dB @ 1550 nm 0 dBm input |
| Input & Output Isolation | Min. 30 dB |
| Polarization Dependent Gain | Typ. 0.3 dB, Max. 0.5 dB |
| Polarization Mode Dispersion | Typ. 0.3 ps, Max. 0.5 ps |
| Control Mode | ACC, APC (optional) |

General Parameters

| | Value |
|---------------------------------|--|
| Operation Temperature | 0 to +40 °C |
| Storage Temperature | -10 to 70 °C |
| Power Supply | 90 – 240 VAC, 47 – 63 Hz |
| Dimensions | 485(W) x 360(D) x 90(H) mm or 485(W) x 515(D) x 90(H) mm |
| Mechanical Safety Control | Key-lock switch, BNC interlock key |
| Optical Power Monitoring | Output power, Input power (optional) |
| Remote Control Port | DB-9 female (RS232), Control software included, RJ-45 (TCP/IP Ethernet) (optional) |
| Protection | Pump Laser (TEC) Overheat, Loss of Input Signal, Output Power Protection |
| Optical Input / Output Tap Port | FC/APC Receptacle |
| Optical Output Terminal | Min. 1 m 3mm PVC cable |
| Optical Fiber | SMF-28 |

Ordering Information

| | | |
|--------------|---------------|--|
| Product Code | AEDFA-aa-R-bb | aa : Saturation output power in dBm bb : NC for bare fiber, CL for collimator |
|--------------|---------------|--|

Amonics undertakes continuous and intensive product development to ensure its product performance at the highest technical standards. As a result, the specifications in this document are subject to change without notice.

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