Benchtop EDFA | PM Fiber | 1 Watt Output Power

Erbium Doped Fiber Amplifier

- Output Power: > 1 Watt (30 dBm)
- Low Input Power Signal Threshold
- 6.0 dB Noise Figure at 0 dBm Input
- 20 dB Minimum Polarization Extinction Ratio
- PM 1550 Panda Fiber; FC/APC Connectors

PM EDFA FEATURES

These benchtop polarization maintainining EDFA's are designed to amplify low power C-band laser diode input signals and provide 1 watt of output power. They are simple to operate, affordable instruments for laboratory research or manufacturing test applications.

These units provide the user with full control of the internal 976nm pump laser diode current levels. The user can also control the instrument in a gain feedback or power feedback mode. The amplifier is controlled via an intuitive front menu and control knob interface. It can also be operated using the RS232 rear panel interface, or can be ordered with an optional ethernet interface. LabVIEW based control software is included with the unit, and ships free of charge. Please contact us if you would like to view the Operating Manual or see the remote interface command set.

These amplifier utilize high reliability Telcordia qualified 976nm high power pump lasers and Telcorida qualified combiners. In principle, the light from the pump lasers excite the erbium ions embedded in the fiber from their ground state to high excitation levels, and the result is high gain – up to 36 dB. The polarization maintaining EDFA amplifies the light polarized along the slow axis of the fiber. Optical isolators are integrated for both the input and the output.

Careful attention to component selection and circuit board design allow these 1550nm range EDFA to produce high gain at a low noise level. Noise levels of < 6 dB with a very flat gain profile over the C-Band make these instruments ideal for many applications.

manufactured for Laser Lab Source by Amonics
Specialist in Optical Amplifiers

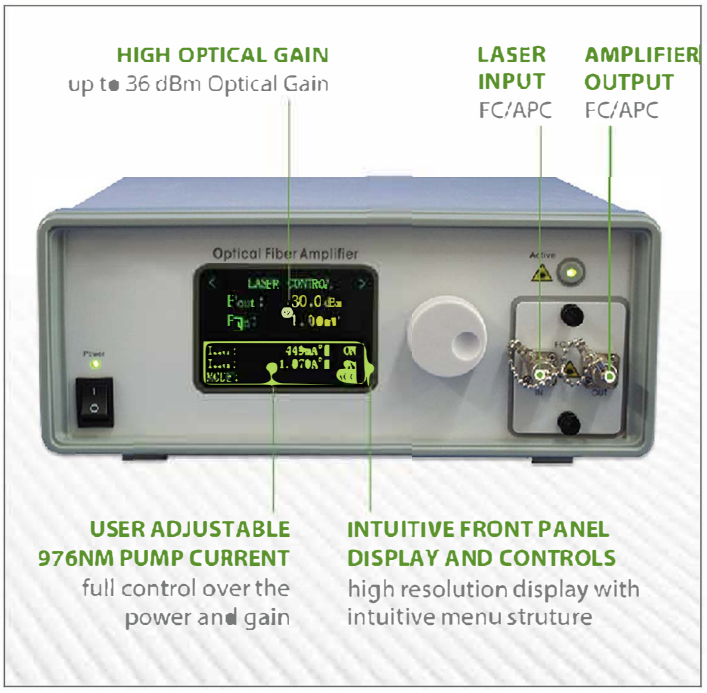
OPTICAL
AMPLIFIERS

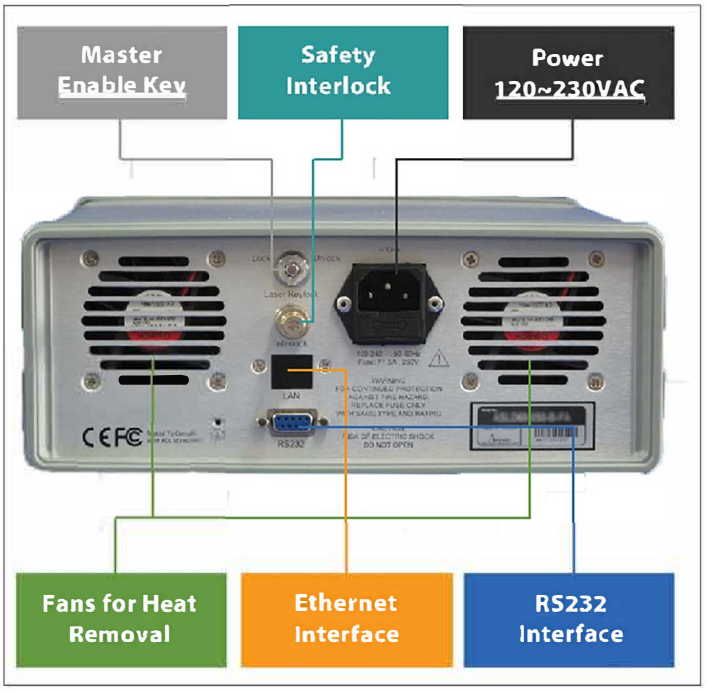
OPTICAL SPECIFICATIONS

- Output Power Range: Adjustable up to 1 W (+30 dBm) *@1mW laser input power*
- Operational Gain Wavelength Range: 1545nm - 1565nm
- Acceptable Input Laser Source Power Range: -6 dBm to +3 dBm
- Input Isolation: > 30 dB
- Output Isolation: > 30 dB
- Noise Figure: 6.0 dB (at 0 dBm Input)
- Standard User Control Mode 1: ACC (user adjustable pump current levels)
- Optional User Control Mode 2: APC (optical output power feedback; optional)
- Polarization Extinction Ratio: > 20 dB, 23 dB typical
- Power Adjustment Step Size: 0.01 dBm
- Gain Medium: Erbium Doped Fiber
- Fiber: PM 1550nm Panda Fiber
- Loss of Input Signal Shut-Down Protection Circuit
- TEC / Temperature Control Limit Pump Laser Overheat Warning Protection
- Rear Panel Safety Interlock Protection
- Acceptable Input Laser Source Power Range: -6 dBm to +6 dBm

USER INTERFACE (ALL MODELS)

- Alphanumeric Color Front Panel Interface w/ Adjust Knob
- Remote: RS232, LabView Control Software Included
- Remote: RJ-45 (TCP/IP Ethernet optional)
- Optical Connectors IN/OUT: FC/APC
- Optical Fiber Options: PM fiber, (SMF-28 optional)





GENERAL SPECIFICATIONS (ALL MODELS)

- Operation Temperature: 0 to 40 °C
- Required Shore Power: 90-240 (VAC), 47-63 Hz
- Dimensions: 260mm x 330mm x 120mm
- Power Monitoring: Output Power (Input Power Optional)
- Remote Control RS2323 Port: DB-9 female
- TCPIP/Ethernet optional
- Protection: Pump Lasers (TEC) Over-Temperature
- Protection: Pump Lasers Current Limit
- Optical Fiber: PMF Panda 1550nm PM Fiber
- Connectors: APC (Others Available on Request)
- Safety Control 1: Key-Lock Switch
- Safety Control 2: BNC Interlock
- Safety Control 3 (10 Watt): e-Stop
- Safety Control 4: Loss of Input Power Detection and Pump Shut Down

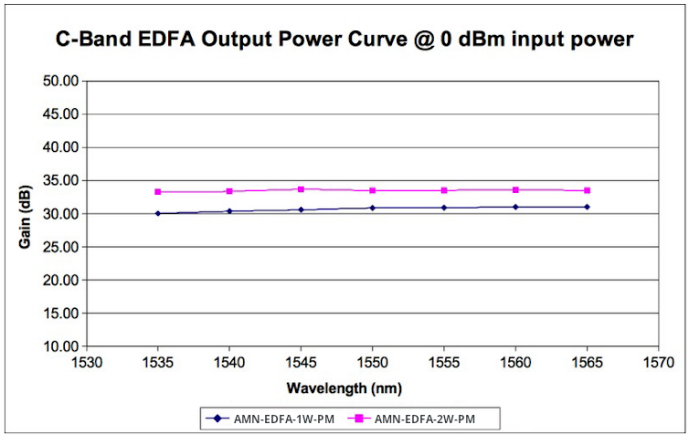
APPLICATIONS FOR HIGH POWER EDFA'S

- Laboratory R&D
- SONET/SDH System
- Optical Communications
- Fiber Optic Sensing
- CATV and Telecommunications R&D

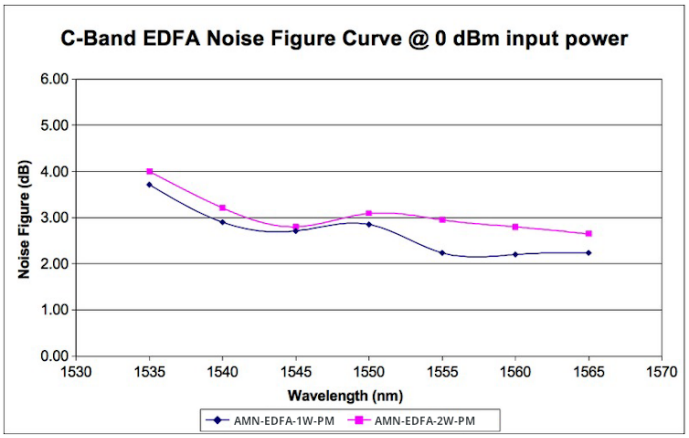
HIGH POWER POLARIZATION-MAINTAINING EDFA MODELS INQUIRE FOR DETAILED SPECIFICATIONS

- AMN-EDFA-1W-PM, 1W Output Benchtop
- AMN-EDFA-2W-PM, 2W Output Benchtop
- AMN-EDFA-5W-PM, 5W Output Rack-Mount
- AMN-EDFA-10W-PM, 10W Output Rack-Mount

C-Band Polarization-Maintaining EDFA Performance



C-Band Polarization-Maintaining EDFA Performance



PRODUCT WARRANTY:
This product is sold with a full one-year warranty. It is warrantied to be free from defects in material and/or workmanship for a period of one year from the date of shipment.

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