



# Polarization-Maintaining EDFA C-Band, 200 mW Output Power



## **Erbium-Doped Fiber Amplifier**

- o Part Number: AMN-EDFA-200mW-PM
- o Output Power: 0.2 Watt (23 dBm)
- o Low Power Input Signal
- o 5.5 dB Noise Figure at 0 dBm Input
- o 20 dB Minimum Polarization Extinction Ratio
- o PM 1550 Panda Fiber



## **POLARIZATION-MAINTAINING EDFA**

These polarization-maintaining EDFAs amplify low-power C-band signals with a very low noise figure. They are simple to operate, affordable benchtop instruments for laboratory research or manufacturing test applications.

## **EASY TO USE, FRONT PANEL OR REMOTE OPERATION**

These units provide the user with full control of the internal 976nm pump laser diode current levels. The user can order the instrument with the optional 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.

## **TELCORDIA-QUALIFIED COMPONENTS & THOUGHTFUL DESIGN**

These amplifier utilize high reliability Telcordia-qualified 976nm high power pump lasers and Telcordia-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 23 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.

## **MULTIPLE POWER OPTIONS**

The polarization-maintaining EDFA systems are available with output power levels from 18 dBm to 40 dBm. Inquire directly, or find these products on [LaserLabSource.com](http://LaserLabSource.com).

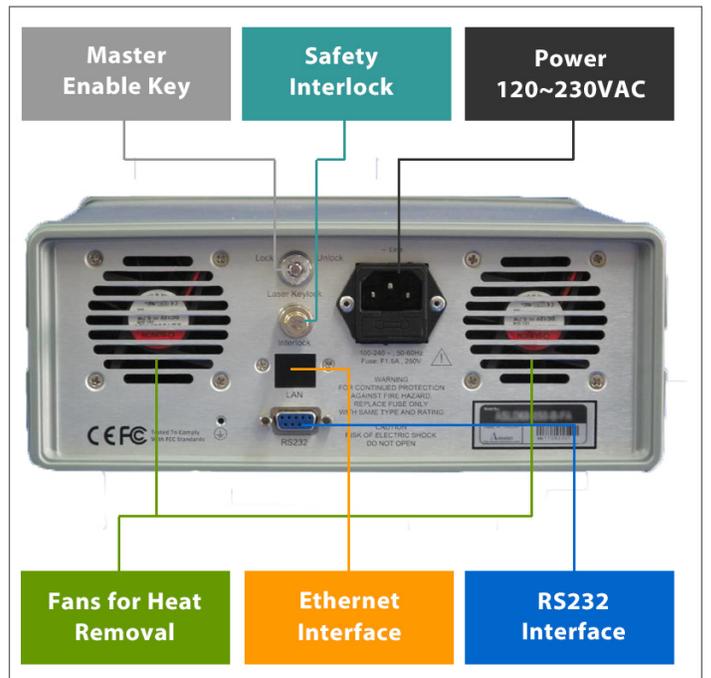
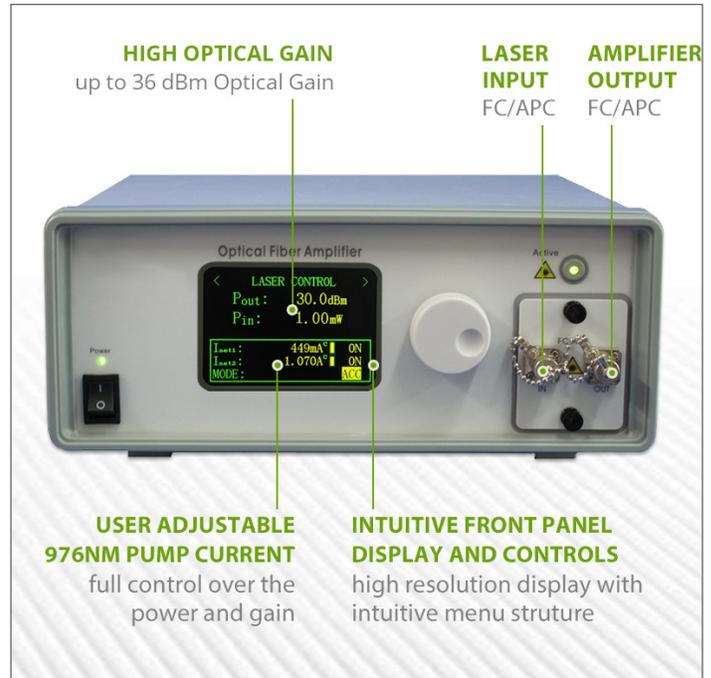


**OPTICAL SPECIFICATIONS**

- Output Power Range: Adjustable up to 0.2 W (+23 dBm) @1mW laser input power
- Operational Gain Wavelength Range: 1530nm - 1565nm
- Acceptable Input Laser Source Power Range: -6 dBm to +3 dBm
- Input Isolation: > 30 dB
- Output Isolation: > 30 dB
- Noise Figure: 5.5 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 4: Loss of Input Power Detection and Pump Shut Down

**APPLICATIONS FOR HIGH POWER EDFA'S**

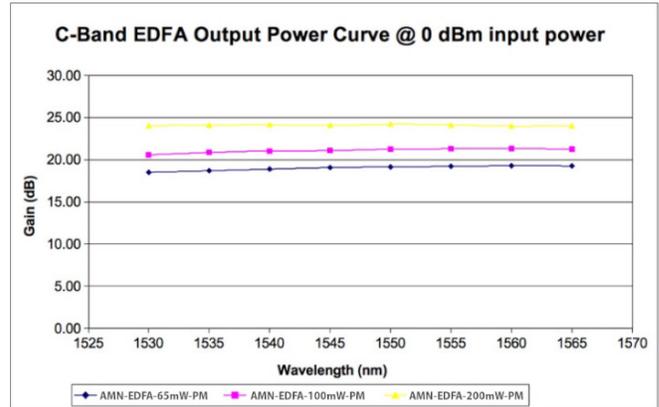
- Laboratory R&D
- SONET/SDH System
- Optical Communications
- Fiber Optic Sensing
- CATV and Telecommunications R&D

**POLARIZATION-MAINTAINING EDFA MODELS**

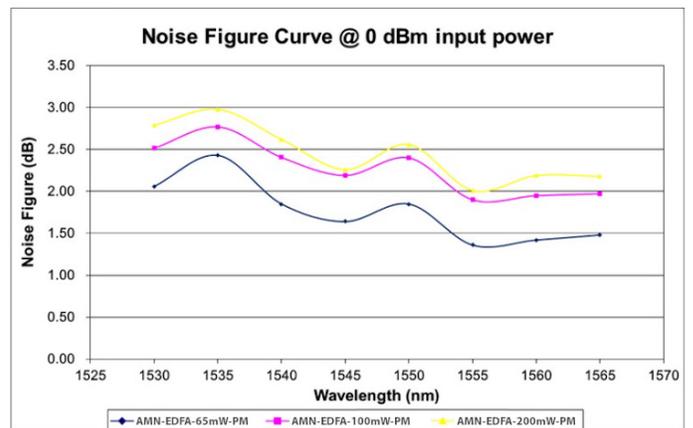
**INQUIRE FOR DETAILED SPECIFICATIONS**

- AMN-EDFA-65mW-PM, 18 dBm Output Benchtop Instrument
- AMN-EDFA-100mW-PM, 20 dBm Output Benchtop Instrument
- AMN-EDFA-200mW-PM, 23 dBm Output Benchtop Instrument

**C-Band Polarization-Maintaining EDFA Output Power**



**C-Band Polarization-Maintaining EDFA Noise Figure**



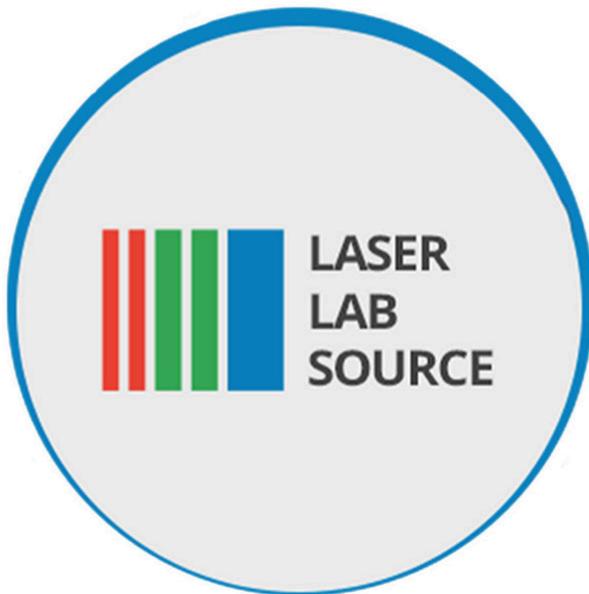


### **PRODUCT SALES AND SERVICE:**

Orders for this product are fulfilled by Laser Lab Source in North America and select international regions. It is manufactured by Amonics, Ltd..

### **PRODUCT WARRANTY:**

This product is sold with a full one-year warranty. It is warranted 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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