



# Polarization-Maintaining EYDFA 5 Watt Output Power



## **Erbium-Ytterbium Co-Doped Amplifier**

- o Part Number: AMN-EDFA-5W-PM
- o Output Power: 5 Watt (37 dBm)
- o Low Power Input Signal
- o 7 dB Noise Figure at 3 dBm Input
- o 20 dB Minimum Polarization Extinction Ratio
- o PM 1550 Panda Fiber



## HIGH POWER, POLARIZATION-MAINTAINING EYDFA

These high power EYDFA amplifiers feature C-band erbium-ytterbium co-doped fiber. 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 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.

## TELCORDIA-QUALIFIED COMPONENTS & THOUGHTFUL DESIGN

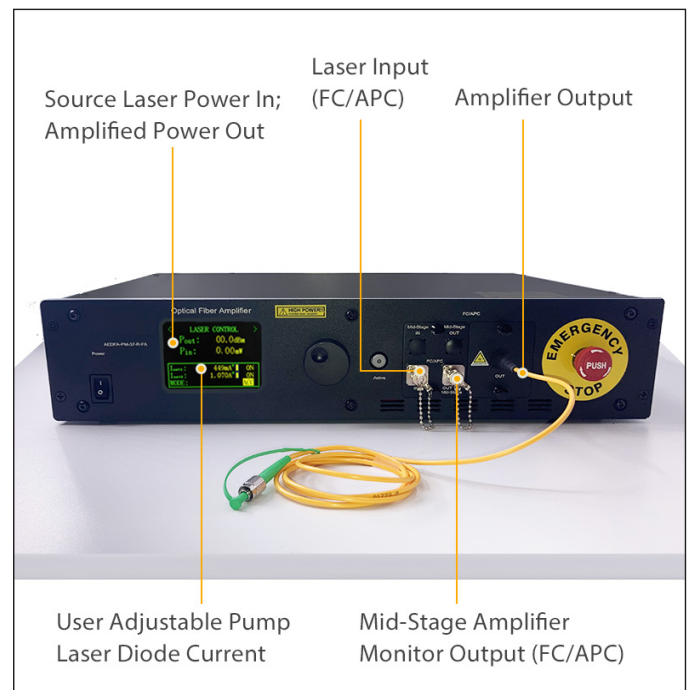
These amplifier utilize high reliability Telcordia-qualified 976nm high power pump lasers and Telcordia-qualified combiners. In principle, the light from the pump lasers excite the erbium and ytterbium ions embedded in the fiber from their ground state to high excitation levels, and the result is high gain – up to 37 dB. The polarization maintaining EYDFA 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 EYDFA to produce high gain at a low noise level. Noise levels of < 6.5 dB with a very flat gain profile over the C-Band make these instruments ideal for many applications.

## MULTIPLE POWER OPTIONS

The polarization-maintaining EYDFA systems are available with output power levels from 18 dBm to 40 dBm. Inquire directly, or find these products on LaserLab-Source.com.





### 5 WATT EYDFA SPECIFICATIONS

- Output Power Range: Up to 5 Watts (@10 mW Source Laser Input Power) > +37 dBm
- Standard Operation Wavelength Range: 1545nm to 1565nm
- Input Laser Diode Power Level: -3 dBm to +10 dBm
- Extended Range Specification: > 5 Watts Output Power @ 1534.25nm (Included with this model)
- Extended Range Specification: > 2 Watts Output Power @ 1568.77nm (Included with this model)
- Output Isolation: > 25 dB (min)
- Polarization: Linear
- Polarization Dependent Gain: (typ) 0.3 dB
- Polarization Mode Dispersion: < .3 ps
- User Set Control Mode: ACC (pump current power control)
- Optional Control Mode: APC (inquire)
- Polarization Extinction Ratio: > 20 dB
- Power Adjustment Step Size: 0.01 dBm
- Gain Medium: Erbium Ytterbium Doped Fiber
- Noise Figure: Max. 7.0 dB

### USER INTERFACE

- Alphanumeric Color Front Panel Interface w/ Adjust Knob
- Remote: RS232, LabView Control Software Included
- Remote: RJ-45 (TCP/IP Ethernet optional)
- Optical Connectors Input and Monitor Output: FC/APC
- Optical Fiber Options: PM / Panda Fiber (SMF-28 optional)
- Output Fiber (Fixed to Front Panel): 1 Meter Long, PVC Coated Cable (3 mm OD)

### HIGH POWER POLARIZATION-MAINTAINING EYDFA 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



### GENERAL SPECIFICATIONS (ALL MODELS)

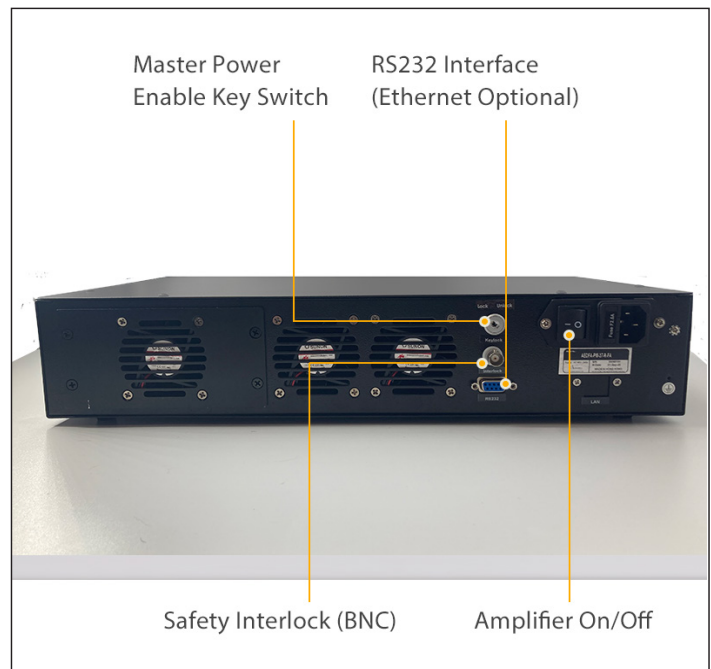
- Operation Temperature: 0 to 40 °C
- Required Shore Power: 90-240 (VAC), 47-63 Hz
- Dimensions (mm): 2U Rack Height: 485 (W) x 515 (D) x 90 (H)
- Power Monitoring: Output Power (Input Power Optional)
- Remote Control RS2323 Port: DB-9 female
- TCP/IP/Ethernet optional
- Protection: Pump Lasers (TEC) Over-Temperature
- Protection: Pump Lasers Current Limit
- Optical Fiber: PMF Panda 1550nm PM Fiber
- Connectors: FC/APC (Others Available on Request)
- Safety Control 1: Key-Lock Switch
- Safety Interlock / Control 2: BNC Interlock
- Safety Control 3: e-Stop
- Safety Control 4: Loss of Input Power Detection and Pump Shut Down

### LASER CLASSIFICATION

- Class IV

### ADDITIONAL EXTENDED RANGE SPECIFICATIONS FOR THIS MODEL

- > 5W Output Power @1534.25nm
- > 2W Output Power @1568.77nm





### **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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