

# YDFA-PA-PM-R



DEVICE

## Pre-Amp YDFA, Rackmount, PM Output

OVERVIEW

The Optilab YDFA-PA-PM-R is a Polarization Maintaining high-gain Dual Stage Pre-amplifier module in a standard 1U Rackmount housing. It is an easy-to-use and cost-efficient solution for photonic subsystems, and fiber optic system integration. Using a high gain design, this pre-amp module provides over 30 dB gain with a 4.5 dB noise figure, good for input power level as low as -40 dBm. Software control via an a standard TTL RS-232 interface is available for status monitoring and pump current adjustments. It also features pump laser protection and alarms to ensure the reliability and safety of the device. Contact Optilab for more information.

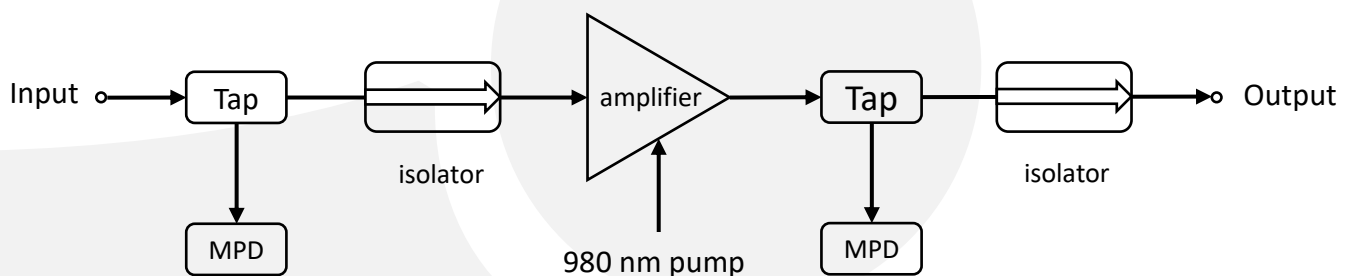
FEATURES

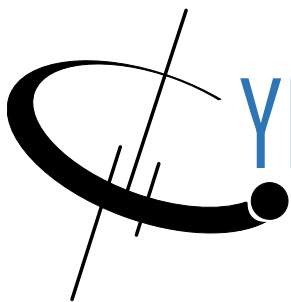
- RS-232 standard for remote control
- Wide wavelength operation range
- 25 dB gain
- PM Output
- Low noise figure
- Designed for low input level

USE IN

- Photonic subsystems
- Fiber optic link amplification
- OEM integration for
  - DWDM networks
  - DFC/CATV
  - RFoG/PON

FUNCTIONAL DIAGRAM





# YDFA-PA-PM-R

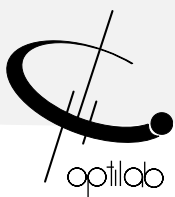
## SPECIFICATIONS

### GENERAL

|                              |                              |
|------------------------------|------------------------------|
| Operating Range              | 1045 nm – 1070 nm            |
| Saturation Output Power      | +15 dBm min. +18 dBm typical |
| Optical Gain                 | 25 dB typ. @ -30 dBm input   |
| Noise Figure                 | 4.5 dB typ., 5.0 dB max.     |
| Optical Return Loss          | 50 dB min.                   |
| Input Optical Isolation      | 30 dB min.                   |
| Output Optical Isolation     | 30 dB min.                   |
| Polarization Mode Dispersion | 0.1 ps max.                  |
| Polarization Dependent Gain  | 0.1 dB max.                  |
| Input Power Range            | -40 dBm to +5 dBm            |
| Output Power Stability       | 0.15 dB over 8 hours         |
| Operation Mode               | ACC                          |
| Input/Output Fiber Type      | PM 980                       |

### MECHANICAL

|                       |   |
|-----------------------|---|
| Operating Temperature | -10°C to +50°C                              |
| Power Supply          | 100 to 240 VAC                              |
| Power Consumption     | 20 W max.                                   |
| Fiber Type            | PM 980                                      |
| Fiber Jacket          | 900 um loose tube                           |
| Connector Type        | FC/APC                                      |
| Remote Control        | RS-232 for laser control, status monitoring |
| Dimensions            | 250(W)x300(L)x100(H) (mm)                   |



## GAIN SPECTRUM

