

High Power Fiber Amplifier

Optilab HPFA series High Power Fiber Amplifiers utilize multimode laser pumping, all-fiber combiner and Erbium/Ytterbium double-clad, large-core fiber technologies to achieve high output power in conjunction with low cost.

HPFA High Power Fiber Amplifier



Product Description

Optilab HPFA series High Power Fiber Amplifiers utilize multimode laser pumping, all-fiber combiner and Erbium/Ytterbium double-clad, large-core fiber technologies to achieve high output power in conjunction with low cost. The output level of the HPFA amplifier can reach up to 20 W in CW operation. It incorporates highly reliable, production proven pump laser sources ensure long-term reliability. Each HPFA comes with Labview-based control software via RS-232. HPFA units are can be customized to meet requirements for optical pulse amplification, LIDAR, CATV, FTTH and PON networks, and free space communications. To meet this diverse range of applications, HPFA can be ordered with these options:

Options

- Adding a Input stage EDFA to allow low input signal level of -25 dBm
- Installing an ASE (Amplified Spontaneous Emission) filter for pulse amplification
- Output power monitoring
- Polarization Maintaining (PM) fiber design

Features

- High output power of up to 43 dBm
- Customizable for various application
- High optical gain of 50 dB
- Control with RS-232 interface
- 1 year warranty

Applications

- Optical pulse amplification
- CATV
- FTTH
- PON networks
- Free space communications

PRODUCT SPECIFICATIONS

Optical Specifications

| | |
|-----------------------------|--|
| Operating Range | C, 1535 nm to 1565 nm |
| Output Power Levels | 33 dBm to 43 dBm, depending on the model |
| Signal Gain @ 0 dBm | 33 dBm to 50 dBm, depending on the model |
| Output Signal Level | -3 to +3 dBm per channel; -25 dBm to 0 dBm (with input stage EDFA) |
| Noise Figure (NF) | 5.0 dB typ. |
| Input/Output Opt. Isolation | 30 dB min. |
| Polar. Dependent Gain | 0.15 dB max. |
| Input/Output Fiber Type | Corning SMF-28 |

Mechanical Specifications

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|---------------------------|--|
| Operating Temperature | 0° C to +50° C |
| Storage Temperature | -30° C to +70° C |
| Power Supply | 80 - 240 V, 43 - 63 Hz AC |
| Power Consumption | 100 W max. |
| Control | Automatic Current Control |
| Monitoring | Output Power, Pump Laser Current, Case Temperature |
| Computer Interface | RS-232 Connector |
| Display | Output Power, Pump Laser Temperature, Current |
| Protection | Pump Laser Overheat Warning, Key lock switch |
| Optical Input Connectors | FC/APC, FC/UPC, SC/UPC, SC/APC |
| Optical Output Connectors | Bare fiber, connector optional |
| Housing Dimensions | 3U: 19" x 14.5" x 4.5" |
| Housing | Steel Frame |

Ordering Information

HPFA-x-yy-zz

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|----|--|
| x | Wavelength: C, 1535 nm to 1570 nm |
| yy | Power Level: 33 dBm to 43 dBm |
| zz | Other Options: PM, PM Fiber; OP, Output Power Monitoring; IA, Input Stage EDFA; AF, ASE Filter for Pulse Amplification |