



rEDFA | Erbium Doped Fiber Amplifier



The QAMnet rEDFA series of Erbium Doped Fiber Amplifiers (EDFA) are reliable and cost-effective optical amplifiers for use in HFC, FTTH, PON and deep fiber applications. By combining 980 nm/1480 nm pump laser modules and high efficiency Erbium doped fiber, rEDFA amplifiers deliver output up to +24 dBm, while maintaining low noise figure (NF).

Depending on pump lasers configuration, rEDFA amplifier produces optical output level from +17 dBm to +24 dBm. In conjunction with other QAMnet transmitter products, rEDFA can be used for transmitting forward 1550 nm analog channels and/or 100% QAM256 modulated signal channels. rEDFA is housed in a standard 19" 1RU rack mount unit.

Features

- Highly reliable 980 nm and 1480 nm pump laser from qualified suppliers
- Pump laser's operating temperature and bias current continuously regulated by micro-controller
- Forward and backward pumping to minimize noise figure (NF)
- Input power level range: -5 dBm to +7 dBm
- Automatic Current Control (ACC) standard
- LED front panel digital display and LED status indicators

Ordering Information

- rEDFA-xx-y
- xx: 17, 20, 23, 24 (Output Power in dBm)
- y: 1, 2, 4, 8 (Number of outputs)



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Technical Specifications

| | |
|---|--|
| Operating Wavelength Range | 1528 nm to 1563 nm |
| Output Power Level (1550 nm and +3 dBm Input) | |
| rEDFA-17 | 16.7 dBm Minimum, 17.0 dBm Typical |
| rEDFA-20 | 19.7 dBm Minimum, 20.0 dBm Typical |
| rEDFA-23 | 22.7 dBm Minimum, 23.0 dBm Typical |
| rEDFA-24 | 23.7 dBm Minimum, 24.0 dBm Typical |
| Number of Output | 1 output standard, 2 and 4 outputs available |
| Optical Return Loss | 50 dB Minimum |
| Input/Output optical Isolation | 30 dB Minimum |
| Polarization Mode Dispersion | 1.0 ps Maximum |
| Polarization Dependent Gain | 0.15 dB Maximum |
| Noise Figure (NF) | 5.0 dB Maximum @ +3 dBm Input |
| Input Power Range | -5 dBm to +7 dBm |
| Output Power Stability | 0.15 dB over 8 hours |
| Input Output Fiber Type | Corning SMF28 |

Environment / Mechanical Specifications

| | |
|----------------------|---|
| Temperature Range | 0°C to +50°C (operation) -40°C to +70° C (storage) |
| Power Supply | 80 – 240 V, 43 – 63 Hz AC 40 - 58 VDC (Optional) |
| Power Consumption | 60 W Maximum |
| Housing Dimensions | 1RU: 19"(W) x 14"(D) x 1.75"(H) |
| Control / Monitoring | Pump Laser Temperature and Current |
| Display | Output Power Level, TEC Temperature |
| Alarm | Over Temperature , Over Current |
| Optical Connectors | SC/APC or Customer Specified |



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