



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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