qEDFA | Erbium Doped Fiber Amplifier

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The QAMnet qEDFA series of Erbium Doped Fiber Amplifiers (EDFA) are reliable and high output optical amplifiers for use in HFC, FTTH, PON and deep-fiber applications. Utilizing high power 980 nm multimode pump laser modules and double-clad Yb/Er doped fiber, qEDFA amplifiers deliver optical output levels up to +37 dBm (5,000 mW). This combination of technologies provide the highest mW per dollar ratio.

Depending number of pump lasers modules and configuration, qEDFA amplifiers produce optical output level from +25 dBm up to +37 dBm. The high power booster qEDFA is housed in a standard 19" 2RU rack-mount unit.

Features

- High power (>5 W) multimode 980 nm pump lasers from qualified suppliers
- Double-Clad Ytterbium /Erbium (Yb/Er) large core fiber for high power amplification
- Pump laser operating temperature and bias current continuously regulated by microcontroller
- Forward and backward pumping to minimize noise figure (NF)
- Input power level range: -8 dBm to +12 dBm
- Standard Automatic Current Control (ACC) or optional Automatic Power Control (APC)
- LCD front panel digital display and LED status indicators
- Software Control through RS-232, or RS485 available as an option

Ordering Information

- qEDFA-xx-yy
- xx: 25, 27, 30, 33, 35, 37 (Output Power in dBm)
- yy: 01, 02, 04, 08, 16 (number of output)

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Technical Specifications

Operating Wavelength Range	1535 nm to 1563 nm
Output Power Level (@ 1550 nm, +3 dBm input)	
qEDFA-25	24.7 dBm Minimum, 25.0 dBm Typical
qEDFA-27	26.7 dBm Minimum, 27.0 dBm Typical
qEDFA-30	29.7 dBm Minimum, 30.0 dBm Typical
qEDFA-33	32.7 dBm Minimum, 33.0 dBm Typical
qEDFA-35	34.7 dBm Minimum, 35.0 dBm Typical
qEDFA-37	36.7 dBm Minimum, 37.0 dBm Typical
Number of Outputs	1 output port standard, multiple output ports (up to 16) can be customized
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	-8 dBm to +12 dBm
Output Power Stability	0.2 dB over 8 hours
Input / Output Fiber Type	Corning SMF-28

Environment / Mechanical Specifications

Temperature Range	0ºC to +50ºC (operation) -40ºC to +70ºC (storage)
Power Supply	80 – 240 V, 43 – 63 Hz AC 40 - 58 VDC (Optional)
Power Consumption	120 W Maximum
Housing Dimensions	2RU: 19”(W) x 14”(D) x 3.50”(H)
Control / Monitoring	Pump Laser Temperature and Current
Display	Output Power Level, TEC temperature
Alarm	Over Temperature , Over Current
Optical Connectors	FC/APC or Customer Specified

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