



EDFA

ERBIUM-DOPED FIBER AMPLIFIER

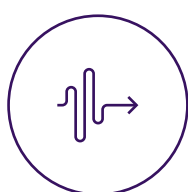
SPECIFICATION SHEET

AVAILABLE IN PXI

quantifiphotonics.com

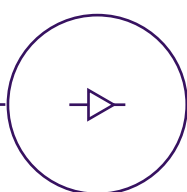
The EDFA is a high-power Erbium-Doped Fiber Amplifier for optical signal amplification in C band.

With three control modes: constant power, constant current and constant gain mode, it is a versatile addition to optical-electrical test systems.



Constant power output mode.

With the built-in closed-loop power monitoring, the EDFA can operate in constant power output mode to stabilize fluctuating input power.



High output power

Get up to 24.5 dBm amplified output power for all your high-power requirements.



Simple, intuitive operation with CohesionUI™.

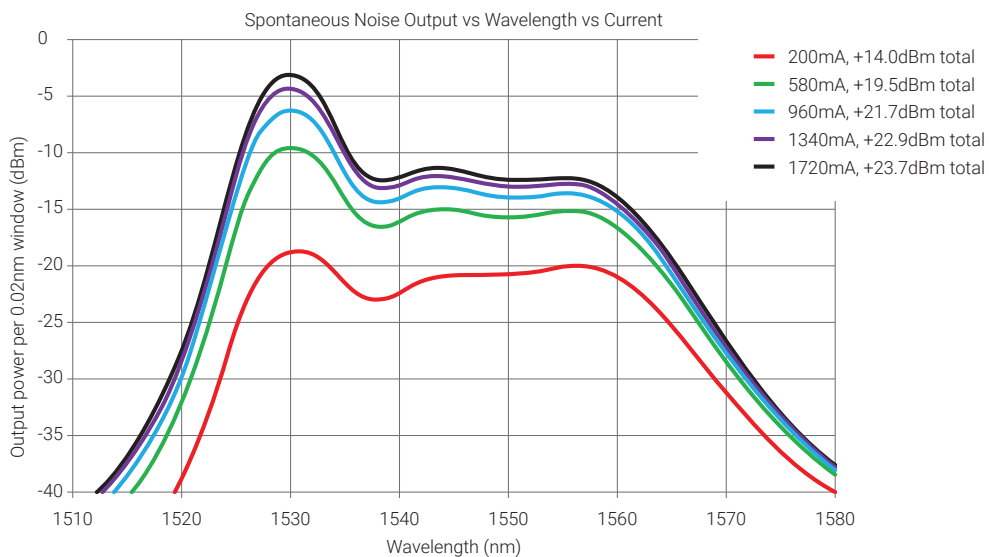
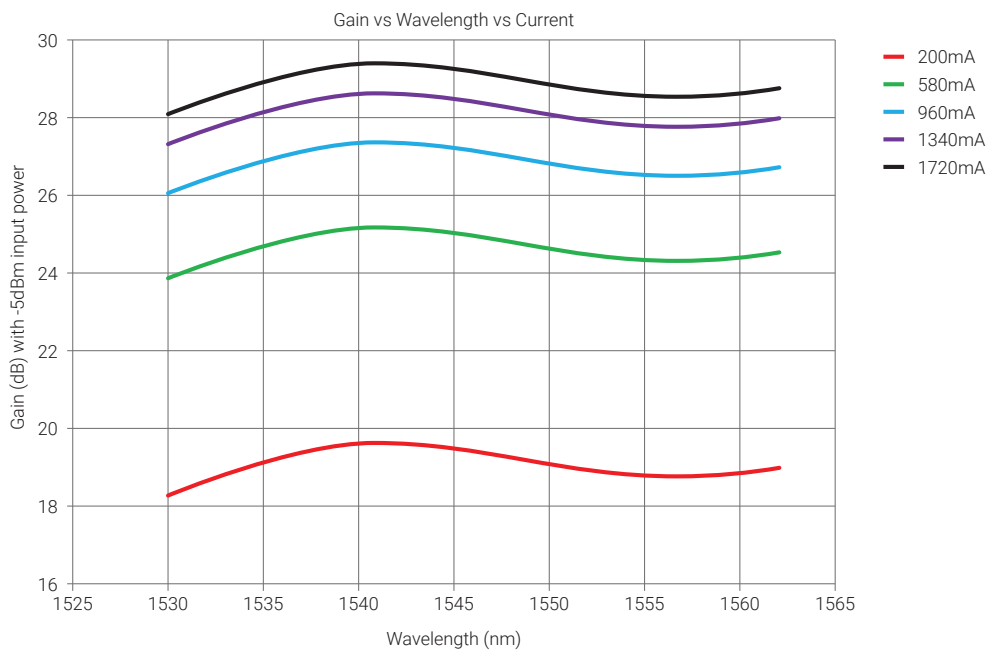
CohesionUI makes it simple to control the instrument from your PC or mobile device.

TARGET APPLICATIONS

- Fiber optic communications signal power amplification
- OSNR stress test noise loading
- Amplification of high data rate modulated signals.

PERFORMANCE

Performance graphs of the EDFA-1001 model.



FORM FACTOR

PXIe – MODULAR

Our expanding range of PXIe optical test solutions are used by customers in mixed-signal test and measurement systems, reducing complexity, lowering the cost of test and accelerating time to market.

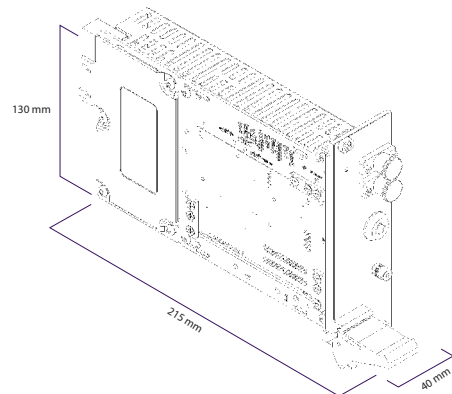
- Multi vendor, open standard with over 2500 PXI modules available
- Advanced timing and synchronization capabilities across instruments
- Low latency, high performance processing and fast data throughput
- Design and build scalable, high channel count systems
- Small footprint and lower power consumption



EDFA TECHNICAL SPECIFICATIONS



EDFA-1001-1-FC-PXIE



EDFA TECHNICAL SPECIFICATIONS

General Specifications	PXI
Bus connection	PXIe
Number of channels	1
Slot count	2
Optical connector type	FC/PC,SC/PC,FC/APC or SC/APC
Dimensions (H x W x D)	130 x 40 x 215 mm 5.1 x 1.6 x 8.5 inches
Weight	~ 0.64 kg ~ 1.4 lbs
Operating temperature range	5 °C to 45 °C 41 °F to 113 °F
Storage temperature range	-40 °C to 70 °C -40 °F to 158 °F

Power Specifications	PXI
AC input voltage range	Please refer to the latest PXI Express Hardware Specifications published by the PXI Systems Alliance.
AC input current	
AC frequency range	
DC output voltage	
DC output current max	
Dimensions (LxWxH)	

Model Number	1001
Wavelength	1530 to 1562 nm
Fiber type	SMF-28
Total output power (adjustable) ¹	21 to 24.5 dBm
PDG	< 0.5 dB
Noise figure	< 5.0 dB (Typical)
Gain flatness	± 8 dB
Max input power	12 dBm

Notes

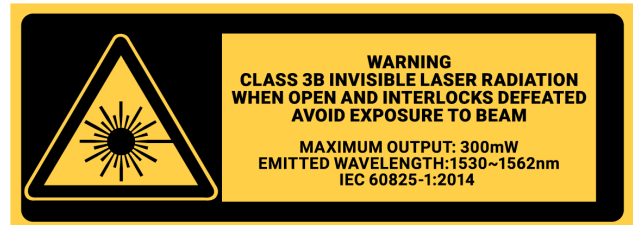
1. In constant output power mode.

SAFETY INFORMATION

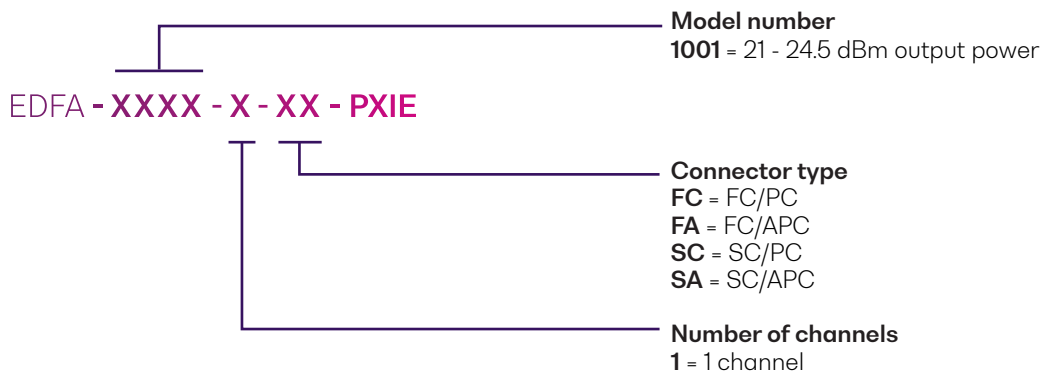
Quantifi Photonics' EDFA instruments are Class 3B laser products.

The use of controls, adjustments, and procedures other than those specified in the EDFA user manual may result in exposure to hazardous situations or impair the protection provided by this unit.

Never look directly into a live fiber; ensure that your eyes are always protected.



ORDERING INFORMATION



WARRANTY INFORMATION

This product comes with a standard 1 year warranty.

EXTENDED WARRANTIES AND CALIBRATION PLANS

With an **extended warranty and calibration plan** you'll spend more time focused on your priorities and less time worrying about maintenance.

Add a **3 or 5 year extended warranty** when you purchase your Quantifi Photonics instruments.



Guarantee performance

Ensure your equipment is operating at the best it can be for reliable and accurate results.

Lower cost of ownership

Lock in savings and maximise your testing budget with a lower base cost of ownership.

Peace of mind

Spend less time worrying about maintenance and more on generating results.

CALIBRATION PLANS FOR ADDITIONAL DISCOUNTS

Order a **calibration plan** when purchasing your Quantifi Photonics instruments and get additional discounts.

10% Discount

On calibrations ordered at the time of purchase.

25% Discount

Add on an extended warranty and receive a 25% discount on calibrations.

Over time and with regular use, all optical parts and connectors require re-calibration and maintenance to guarantee accurate and reliable performance. We recommend Quantifi Photonics optical instruments are re-calibrated every 12 months. With an instrument calibration performed by Quantifi Photonics technicians you receive:

- Comprehensive calibration to factory specifications
- End-to-end inspection to ensure all instrument functions are working and connectors are clean
- Firmware, software and documentation updates
- Certificate of calibration which includes detailed test results

How to do I secure my extended warranty or calibration plan?

Contact your Quantifi Photonics sales representative or email sales@quantifiphotonics.com

Extended warranties and calibration plans must be ordered at the time of purchase and are available only for Quantifi Photonics' products. The 25% calibration discount only applies to calibrations while the product is covered by the extended warranty period.

Our portfolio of optical & electro-optical test modules is rapidly expanding to meet a wide range of customer requirements and applications.

For more details visit quantifiphotonics.com/products

Tunable Laser Sources

Versatile telecom laser sources with full tunability across C or L bands. Narrow 100 kHz linewidth, up to 16.5 dBm of power, optional whisper mode to disable frequency dither.



Fixed Wavelength Laser Sources

Highly-customizable DFB or FP laser sources available in a wide range of wavelengths and powers up to 24 dBm. Supports SMF, MMF and PMF.



Swept, Tunable Continuous Wave Laser

Swept, tunable continuous wave (CW) laser source with 0.01 dB power stability and 400 nm/s high-speed scan rate for R&D and production testing.



Superluminescent Diode Broadband Light Source

Super-luminescent LED light source with high output power, large bandwidth and low spectral ripple and various wavelengths.



Erbium-Doped Fibre Amplifier (EDFA)

High power Erbium-Doped Fiber Amplifier for signal power amplification in C and L bands with various control modes, including automatic gain control.



Variable Optical Attenuator (VOA)

Fast attenuation speed with low insertion loss and built-in power monitoring. Operates in fixed attenuation or constant output power modes. Support SMF, MMF and PMF.



Polarization Controller & Scrambler

High-speed automated polarization control with broad wavelength coverage from 1260nm to 1650nm, low insertion loss and back reflection. Full remote control via intuitive GUI, LabVIEW or SCPI.



Optical Power Meters

Fast terminating or inline monitoring of optical signal power from -60 to +10 dBm across 750 – 1700 nm wavelengths. Model with logarithmic analog output for applications such as silicon photonics fiber alignment.



Optical Spectrum Analyzer (OSA)

Cost-effective, spectral measurement in a compact module with built-in analysis for: SMSR, OSNR & spectral width. Targeted wavelengths for specific applications in O band, C band & L band.



Optical-to-Electrical Converter

High bandwidth, broadband O-to-E converter. Available in a range of configurations; choose from 1 or 2 channels, AC or DC coupling and various conversion gain and operating wavelength ranges.



Digital Sampling Oscilloscope (DSO)

Digital equivalent-time sampling oscilloscope (DSO) with high-quality precision timebase and low jitter mode, available in 1 or 2 channels in a compact benchtop instrument.



Bit Error Rate Tester (BERT)

4 or 8-channel Pulse Pattern Generator and Error Detector at rates up to 29 Gbps for the design, characterization and production of optical transceivers and opto-electrical components.



Photonic Doppler Velocimeter (PDV)

Purpose-built module for Photonic Doppler Velocimetry (PDV). A circulator, two VOAs and a passive coupler all built into one compact module.



Optical Switch

Proven reliability and fast switching time. Wide variety of switch configurations: 1x4, 1x16, 16x16 and more. Models support SMF, MMF and PMF.



Photocurrent Amplifier

Versatile photodiode amplifier to measure photocurrent in photonic integrated circuit (PIC) applications. Digital and analog measurement.



Passive Component Integration

Integrate passive optical components of your choice such as WDM couplers, splitters, band-pass filters, PM beamsplitters and circulators. SMF, MMF and PMF.



Test. Measure. Solve.TM

Quantifi Photonics provides test solutions to help customers unlock scalable and cost-effective high-volume manufacturing of photonic integrated circuits (PICs), co-packaged optics and pluggable optics. The company's portfolio includes a wide range of photonic test instruments, and digital sampling oscilloscopes, available as benchtop or the industry-standard PXI format to support cost-effective, high-throughput design verification testing and high-volume manufacturing.

To find out more, get in touch with us today.

General Enquiries	sales@quantifiphotonics.com
Technical Support	support@quantifiphotonics.com
Phone - NZ	+64 9 478 4849
Phone - USA	+1-800-803-8872

quantifiphotonics.com

**QUANTIFI
PHOTONICS®**
A Teradyne Company

Quantifi Photonics Ltd © 2025. All rights reserved. No part of this publication may be reproduced, adapted, or translated in any form or by any means without the prior permission from Quantifi Photonics Ltd. All specifications are subject to change without notice. Please contact Quantifi Photonics for the latest information.