

DUAL EDFA

Erbium Doped Fiber Link Amplifier



The world's best optical clocks realize an accuracy which surpasses other clock systems by orders of magnitude. Further improvements of optical clocks and the search for systematic effects demand for intercomparisons between the best optical clocks, which are often located in different labs or even different cities or countries. Optical fiber links are an efficient and powerful means to bridge these long distances between clocks.

Dissemination of extremely stable optical frequencies derived from optical clocks via optical fiber links will enable remote users to take advantage of the fantastic accuracy of optical clocks without the need to operate such a clock on site.

Both applications benefit from existing optical fiber connections which are available all over the world. The DUAL EDFA has been engineered as bidirectional amplifier, which is a prerequisite for active fiber noise cancellation. It has been used successfully in recent experiments demonstrating world record performance of optical fiber links. Two independent amplifier units allow to use up to two fiber channels.

MenloSystems

KEY SPECIFICATIONS

- Two Independent Bidirectional Amplifier Units
- Amplification Max. 20 dB
- Available on ITU Channels

APPLICATIONS

- Optical Fiber Links
Related Publications:
 - S. Droste et al., PRL **111**, 110801 (2013)
 - K. Predehel et al., Science **336**, 441 (2012)
- Optical Clock Comparison
- Optical Frequency Dissemination

FEATURES

- Integrated Micro Controller and Front Panel Touch Screen
- Control via USB, RS232, LAN, Ethernet

OPTIONS

- **COM1300**
Add-on for Inline Communication
via 1.3 μm communication channel

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SPECIFICATIONS

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Wavelength	ITU channel, 1520 ... 1577 nm (C-Band)
Input Power	0.5 ... 5 μ W
Amplification	≤ 20 dB
Maximum Output Power	10 mW
Input / Output Connector	FC/APC, SMF 28

REQUIREMENTS

Operating Voltage	100/115/230 VAC
Frequency	50 to 60 Hz
Power Consumption	< 120 W
Operating Temperature	22 ± 5 °C
Control Electronics Dimensions/Weight	19" rack mountable, 3 U (449 x 148 x 497 mm ³)

ORDERING INFORMATION

Product Code	DUAL EDFA
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Please call for pricing. Specifications are subject to change without notice. Custom modifications are available, please inquire.



Invisible laser radiation
avoid exposure to beam
Class 3B laser

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