EDFA-GI-B

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Gain Flattened EDFA for R&D Application

The Optilab EDFA-GI-B is a line of Gain-Flattening Benchtop Erbium-Doped Fiber Amplifiers designed for laboratory testing and research applications of a DWDM system. When a standard EDFA is used to amplify multi-channel DWDM signals, the output power level of various channels will vary according to the gain profile of the erbium fiber. The gain variation can be as great as 6 dB in magnitude. The EDFA-GI-B is unique in its dual-stage amplification and internal Gain Flattening Filter (GFF) to compensate the erbium fiber gain variation. This design enables the EDFA-GI-B to reduce the gain variation to ± 0.5dB over its full operating wavelength range, 1530 nm to 1560 nm. Depending on the input power level of each channel, an EDFA-GR is able to amplify up to 64 DWDM channels. The EDFA-GI-B is a versatile and powerful fiber amplifier, incorporating four pump sources (two 980 nm lasers and two 1480 nm lasers). With all four pump lasers set to maximum operating current, the total output power level of the EDFA-GI-B can reach +24 dBm (200mW). To provide maximum flexibility, each pump laser's operating current can be individually adjusted for optimal gain characteristics for different input channels/power level requirements. Housed inside a laboratory-grade benchtop case, EDFA-GI-B has easy-to-use control interface and clear LCD display. This amplifier is constructed with 100% Telcordia-qualified components to ensure 15+ years of continuous operating life. Contact Optilab for more information.

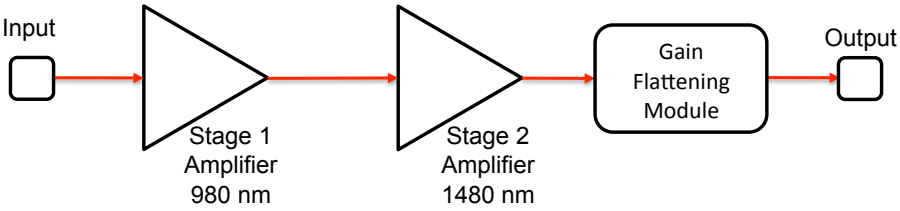
Features

- Compatible with 10 Gb/s and 40 Gb/s
- Channel spacing of 100 GHz or 50 GHz
- Flatten gain amplification from 1530 - 1560 nm
- Amplify 8 to 64 DWDM channels
- Output level can be varied up to +24 dBm
- Four pump sources controlled individually
- Two 980 nm pump lasers
- Two 1480 nm pump lasers
- **3 year warranty standard**

Applications

- Laboratory Test and Measurement
- Test Instrumentation
- R&D

Functional Diagram



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OPTIONS

EDFA-GI-xx-B

xx	Output power level +18 – +24 dBm

TECHNICAL INFO

For technical info and support:

sales@optilab.com

www.optilab.com

WEB ORDER

To order, please visit OEQuest.com.

OEQuest.com

Optilab Advantage

- Innovation
- Performance
- Quality
- Customization
- Warranty

Optical Specifications	
Operating Range	1530 nm to 1560 nm
Amplifier Design	Single stage with internal Gain Flattening Filter
Output Power Levels	+18 dBm to +24 dBm
Number of Pump Lasers	4 total, 980 nm (2) and 1480 nm (2)
Input Signal Level per Channel	-7 dBm to -15 dBm, for gain flatness to ± 0.5 dB
Number of Channels	Can accommodate 8 - 64
Optical Gain per Channel	13 dB to 21 dB, depending on input level
Gain Flatness	± 0.5 dB
Noise Figure	5.0 dB typ.
Polarization Dependent Gain (PDG)	0.2 dB max.
Polarization Mode Dispersion (PMD)	0.5 ps max.
Output Power Stability	± 0.05 dB over 8 hours
Input/Output Isolation	30 dB min.
Optical Fiber	Single Mode, SMF-28
Mechanical Specifications	
Operating Temperature	0° C to +50° C
Storage Temperature	-40° C to +70° C
Power Supply Requirements	80 - 240 V, 43 - 63 Hz AC
Power Consumption	80 W max.
Monitoring	Pump Laser Temperature
Computer Interface	USB
Display	Output Power Level, TEC Temperature
Alarms	Temperature and Current Threshold
Optical Connectors	FC/APC, SC/APC
Housing Dimensions	250mm(L) x 300mm(W) x 100mm(H)

EDFA-GI-B Gain Flatness[1]

1 (Measured by Agilent 8703A Lightwave Component Analyzer)