EDFA-GB-R

DEVICE

Gain Flattened Booster EDFA for DWDM Networks

OVERVIEW

The Optilab EDFA-GB-R is a line of Gain Flattening Erbium-Doped Fiber Amplifiers are designed for in-line amplification of DWDM networks. 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. This gain variation can be as great as 6 dB in magnitude. The EDFA-GB-R is unique in its dual-stage amplification and internal Gain Flattening Filter (GFF) to compensate the erbium fiber gain variation. This design enables EDFA-GB-R to reduce the gain variation to ±0.5 dB over its full operating wavelength range, 1530 nm to 1560 nm. Depending on the input power level of each channel, the EDFA-GB-R is able to amplify up to 64 DWDM channels. 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 1530 nm to 1560 nm
- High output power up to +24 dBm
- Amplify 8 to 64 DWDM channels
- Two 980 nm pump lasers
- Two 1480 nm pump lasers
- 1 year warranty standard

USE IN

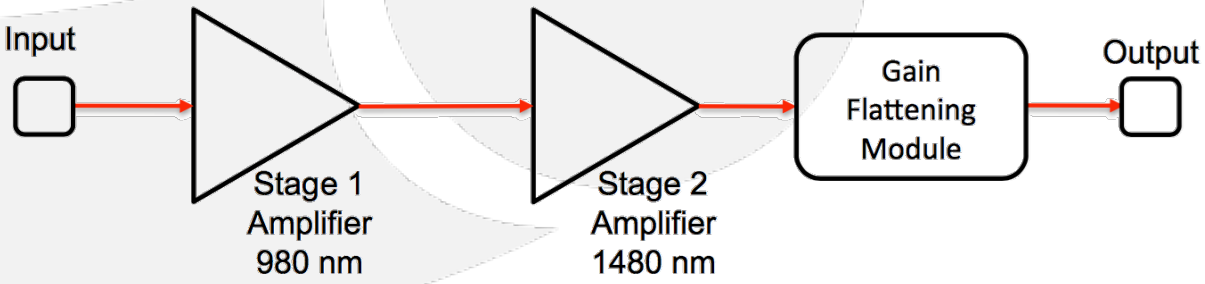
- Test Instrumentation
- R & D

ORDERING OPTIONS

EDFA-GB-xx-R

xx Output Power Level of +18 - +24 dBm

FUNCTIONAL DIAGRAM



EDFA-GB-R

SPECIFICATIONS

GENERAL

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 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

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	RS-232 (optional), SNMP (optional)
Display	Output Power Level, TEC Temperature
Alarms	Temperature and Current Threshold
Optical Connectors	FC/APC, SC/APC
Housing Dimensions	1 U Rack: 19" x 14" x 1.75"

EDFA-GB GAIN FLATNESS