



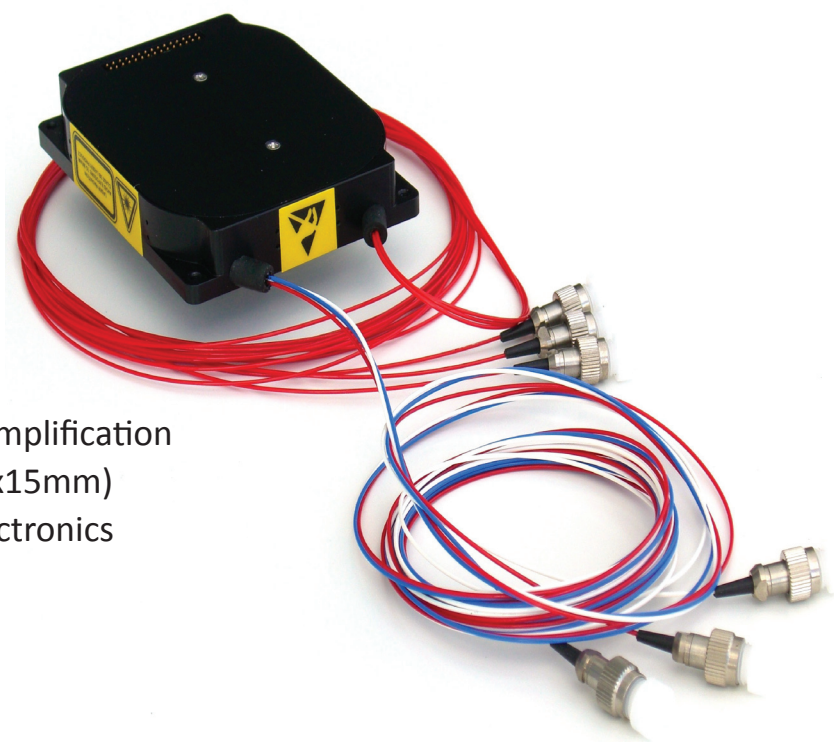
HIGH Power Fiber Technology



Compact EDFA with Control Electronics

Features:

- Fast Transient Control
- Output Power up to +23 dBm
- ROHS Compliant
- Uncooled Pump Option
- Telcordia Qualified
- Gain-Flattened Version for Full-band Amplification
- Industry Standard Form Factor (70x90x15mm)
- State-of-the-Art Integrated Control Electronics



Applications:

- Long Haul and Metro Networks
- Transmitter and Receiver Amplification
- Single Channel, Narrowband and Wideband DWDM

The Manlight Compact EDFA gain module with integrated control electronics is suitable for DWDM systems where fast transient control and gain flattening is required. It can be optimized to perform as a booster, line and pre-amplifier in systems and subsystems for metro and long haul applications. It operates in constant gain, constant power mode or in constant current mode. The gain block contains input and output monitor diodes and isolators. The EDFA can be configured to use an uncooled pump laser that enables low power consumption which allows system designers to achieve compact solutions, lower costs and flexibility in system design.

Optical Characteristics

Parameter	Booster Single-Channel	Pre-Amp Single-Channel	Gain - Flattened	Unit
Wavelength Range	1529 - 1565	1529 - 1565	1529 - 1565	nm
Maximum Output Power	+23	+5	+20	dBm
Input Power Range	-10 to +4	-30 to -10	-25 to -3	dBm
Nominal Gain	20	30	23	dB
Gain Flatness (typ) @ Nominal Gain	N/A	N/A	0.8	dB
Gain Flatness (max) @ Nominal Gain	N/A	N/A	1.5	dB
Noise Figure (typ) @ Nominal Gain	5.0	5.0	5.0	dB
Noise Figure (max) @ Nominal Gain	5.5	5.5	5.5	dB
Polarization Mode Dispersion	0.3	0.3	0.3	ps
Polarization Dependent Gain	0.3	0.3	0.4	dB

Electrical & Environmental Characteristics

Transient Settling Time (typ / max)	50 / 200			µs
Transient Overshoot/Undershoot (typ/max)	0.3 / 0.8			dB
Power Consumption (typical / max EOL)	6.0 / 12.0	2.0 / 3.0	6.0 / 12.0	W
Power Consumption (Uncooled version)	2.0 / 3.5	1.5 / 3.0	2.0 / 3.5	W
Power Supply Voltage	+3.3 or +5.0			VDC
Operating Case Temperature	0 to +70			°C
Storage Temperature	-40 to +85			°C
Operating Humidity (non-condensing)	5 - 95			% RH

Electrical Pin-Out

The electrical connector is a 30-pin female connector.

Pin#	Description	Pin#	Description	Pin#	Description
1	+3.3 V / +5.0 V	11	NC	21	Input Power Mon GND
2	+3.3 V / +5.0 V	12	Reset	22	Output Power Mon GND
3	+3.3 V / +5.0 V	13	Amplifier Disable	23	Input Power Monitor
4	+3.3 V / +5.0 V	14	Output Power Mute	24	Output Power Monitor
5	GND	15	Case Temp Alarm	25	GND
6	GND	16	NC	26	GND
7	RS-232 IN (TTL)	17	Pump Temp. Alarm	27	+3.3 V / +5.0 V
8	RS-232 OUT (TTL)	18	Pump Bias Alarm	28	+3.3 V / +5.0 V
9	GND	19	Loss of Input Alarm	29	+3.3 V / +5.0 V
10	GND	20	Loss of Output Alarm	30	+3.3 V / +5.0 V

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