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C-Band High-power SM Booster EYDFA

User Manual

P/N: EDFA-1C0(5,6,7)111xxx

Version: 2023-05



1 Introduction

This EYDFA is an optical gain module offering compact design, cost-reduced amplification of optical signal for a variety of applications. An electronic control circuit is integrated inside the module. The default operating mode is automatic Power Control.

2 Features

- Compact package
- High reliability
- High output optical power with low noise figure
- Low power consumption.

3 Typical Applications

- Metro and Access networks
- Single-channel optical communication network
- CATV system
- Optical fiber sensing

4 Specifications

Parameter	Min.	Typ.	Max.	Unit
Operating Wavelength	1545 - 1565			nm
Input Power	-5		10	dBm
Total Output Power	23		40	dBm
Noise Figure (Pin=0dBm, 1550nm)			6	dBm
Input/Output Return Loss	40			dB
PDG			0.5	dB
PMD			0.5	ps
Supply Voltage	DC 12			V
Power Consumption			40	W
Operating Temperature	-5		50	°C
Storage Temperature	-25		75	°C
Relative Humidity (non-condensation)	5		95	%

5 Electronic Connector Pin Assignment

Power supply (The pin interval is 5mm)

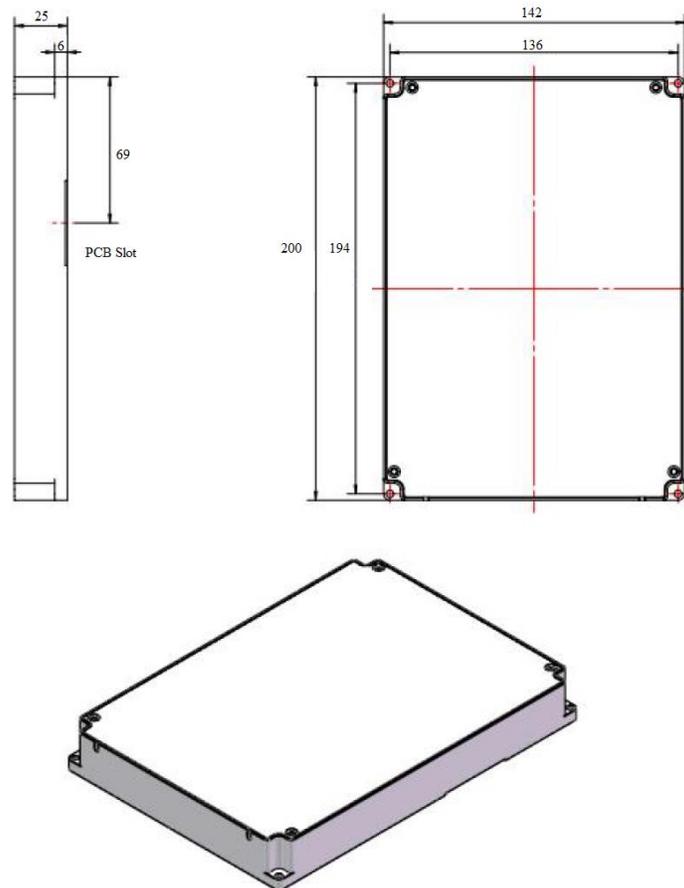
Pin	Description
1	GND
2	+12V

Communication (The pin interval is 2.54mm)

Pin	Description
1	+3.3V
2	GND
3	RX
4	SCLK
5	MOSI
6	MISO
7	TX
8	SS

* Pin 4-6 and 8 are for SPI interface, no connection is needed when use RX and TX for RS232/USB communication.

6 Dimensions



7 Application Notes

- RS232-to-USB converting needs to be done by user. FTDI chip is recommended.
* Benchtop is available at <https://agiltron.com/>.
- Upon accomplishment of the above EYDFA can be remotely controlled by UART commands or the 'EDFA GUI' program (EDFA-M option) provided.
- Heatsink is needed for this high-power EYDFA, as shown below.

