



20dBm Mini Size EDFA Module

➤ Description

Compact Mini Size EDFA Module is designed for optical communication and CATV systems. It can be used as a power amplifier, in-line amplifier or pre-amplifier based on system architecture. It features stable output power, low noise and power consumption. Compact footprint makes it easy to be installed where it is needed, adding to flexibility in network design. To achieve high performance, world brand pump lasers and erbium-doped fibers are used; optical isolators are added at both input and output.

Both input and output signals are sampled and monitored with a feedback circuit. APC (automatic power control), AGC (automatic gain control) and ACC (automatic current control) circuits are designed into the amplifier to ensure high output power stability and reliability. Based on integrated power monitoring circuits, this amplifier features a RS-232 interface enabling connectivity to customer's control system.

➤ Features

- Mini size: 90×70×15mm
- Low cost
- High output power and high gain
- Low noise figure
- Low power consumption

➤ Applications

- Analog and digital CATV systems
- Optical communication systems
- LANs and WANS
- In-line amplification
- DWDM subsystems



90×70×15mm module



➤ Specifications

Optical characteristics

Item	Min	Typ	Max	Unit	Notes
Wavelength Range	1530		1565	nm	
Input Signal Power	-10	0	10	dBm	
Monitor Accuracy			±0.5	dB	
Gain Accuracy			±0.5	dB	
Saturation Output Power		18	20	dBm	
Noise Figure		5	5.5	dB	@1550 nm, Pin=0dBm
Input/Output Return Loss	40			dB	
Input/Output pump leakage			-25	dBm	
Control mode	APC、AGC、ACC				Selectable
Fiber Type		0.9		mm	
Pigtail Length		1.0		m	
Optical Connector	FC/APC				Other type on request

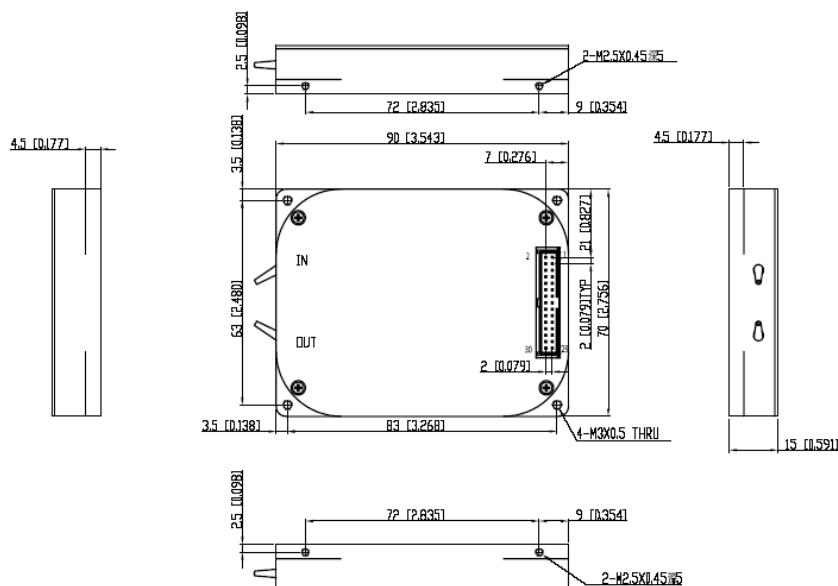
Mechanical & Environmental characteristics

Parameter	UNIT	TYP.	NOTES
Dimensions(LxWxH)	mm	90x70x15	Module
Weight	g	200	
Operating temperature	°C	-40 to +70	
Storage temperature	°C	-40 to +85	
Humidity	%	10 to 90	

Electrical Characteristics

Parameters	Symbol	Min.	Typ.	Max.	Unit
Power supply	V	4.8	5	5.2	V
Power consumption	P	-	2.5	4	W

➤ Mechanical Drawing





➤ Pin Out

Electrical PIN Assignment

Pin	Function	Pin	Function
1	+5V	2	+5V
3	N.C.	4	N.C.
5	GND	6	GND
7	Serial Input RS-232	8	Serial Output RS-232
9	GND	10	GND
11	N.C.	12	RESET Input (active low)
13	Amplifier Disable Input (active high)	14	Eyesafe Input (active high)
15	Case Temperature Alarm (active high)	16	Common Alarm (active high)
17	Pump Temperature Alarm (active high)	18	Pump Bias Alarm (active high)
19	Loss of Input Alarm (active high)	20	Loss of Output Alarm (active high)
21	N.C.	22	N.C.
23	N.C.	24	N.C.
25	GND	26	GND
27	Reserved	28	Reserved
29	+5V	30	+5V

Connector: Samtec ZLTMM-115-xx-L-D

➤ Order Information

EDFA-EM-B-XX-XX/XXX

- Optical connector: FC/APC, SC/APC or upon request
- Saturation Output Power: 20 or upon request