

EDFA Module for CATV System M1021 Series

Application

1. Rack mount optical amplify system
2. Video optical transmission system
3. Optical distributed system



Feature

- Low noise figure: less than 4.5 dB at 0dBm input
- Extremely low CSO: <-70dBc
- Dual EDFA, each up to 22dBm, individual operation is available
- High stability and reliability: MTBF>100000 hours
- Perfect status monitoring interface: RS-485 and RS-232
- High precision AGC/APC circuit: power control accuracy typ ± 0.05 dB
- Intelligent temperature control system: power consumption and hot radiation reduce 30% than common products
- Compact size and circuit
- OEM is optional
- Compatible with Bellcore GR-1312-CORE

Description

This optical amplifier is high stability output EDFA. The key components of the product are high reliability PUMP laser. A unique APC (Automatic Power Control) and ATC (Automatic Temperature Control) circuit insures the high stability and reliability output power, the unique optical circuit design ensures the excellent optical performance. The high stability and high precision MPU system to ensure the control, adjustment and monitor are intelligent and easy.

The optical circuit design especially for Analog CATV system as follows: (1) Low noise ensure better CNR for Analog system is sensitive for noise. (2) Good Spectral flatness in the operating signal to ensure better CSO. (3) Good Spectral flatness in whole C- bands to fit the upgrade in future NGB.

Excellent optical and compact structure design, ensure dual EDFA output simultaneously, each operate individually which ensure the module high integrated.

Optical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit
Wavelength	λ_c	1530	1550	1562	nm
Output power ⁽¹⁾	Po	13	-----	17	dBm
Input power	Pi	-3	-----	+10	dBm
Noise Figure ⁽²⁾	NF	-----	4.5	-----	dB
Output power stability	ΔP_o	-----	± 0.05	± 0.1	dB
Return Loss	RL	-----	-----	-45	dB
PDG	PDG	-----	-----	0.3	dB
PMD	PMD	-----	-----	0.5	ps

(1) : Output power and dual output is optional.

(2) : Test at 0dBm input

Electric Characteristics

Parameter	Symbol	Min	Typ	Max	Unit
Power Supply	Vps	4.8	5.0	5.2	VDC
Consumption ※	P	-----	-----	20	W

※Actual consumption depend on output power and environment temperature.

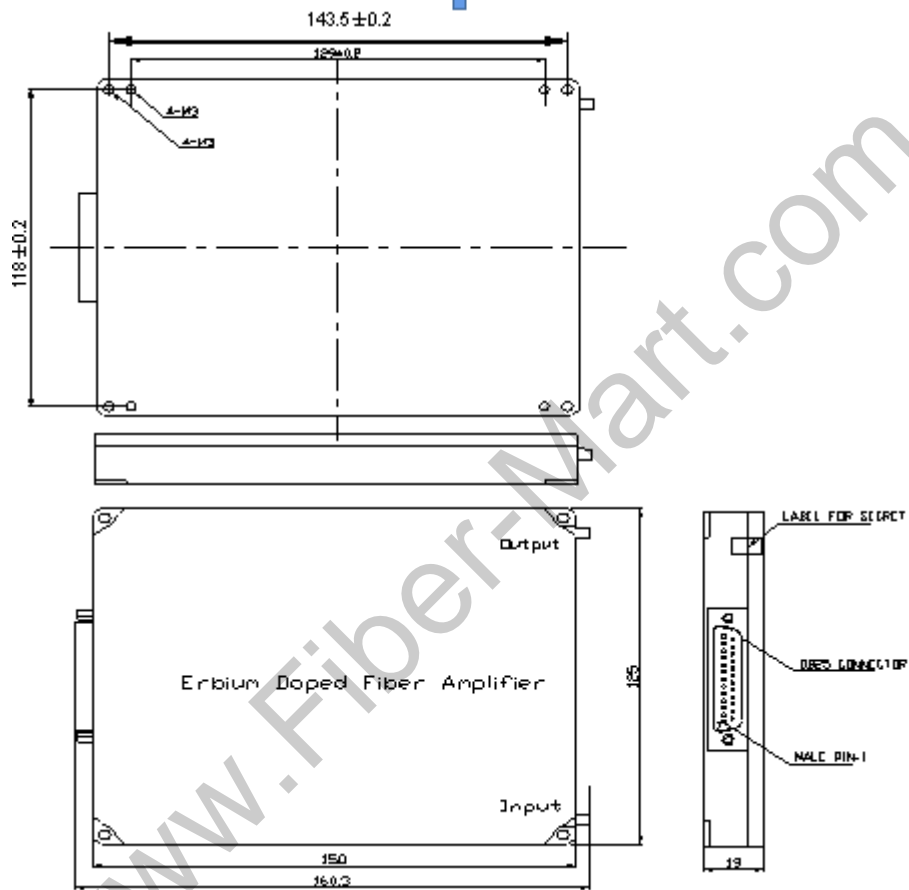
Environmental Characteristics

Parameter	Symbol	Min	Typ	Max	Unit
Operating temperature	Tw	-5	-----	60	°C
Storage temperature	Ts	-40	-----	80	°C
Humidity	-----	10	-----	85	%

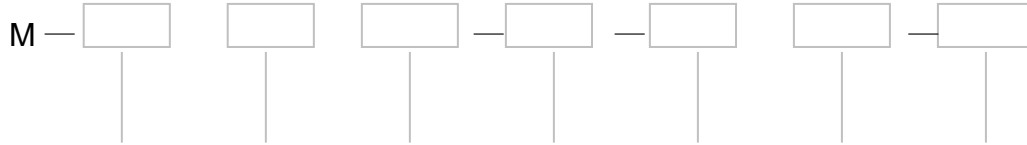
(3) : Non-condensing

Mechanical Dimension

M1020: 150 × 125 × 19mm



Order Information



Category	Mechanical	Application	Input Power	Output Power ^注 1	Output port	Voltage	Interface
M: Module	10: Mechanical dimension 150×125×19mm	2: Fiber Amplifier	1: -3~10dBm 9: other	13: 13dBm ... 24: 24dBm	1.: 1 port	7: 5VDC 8: 3.3VDC	1: SC/UPC 2: SC/APC 3: FC/UPC 4: FC/APC 5: LC/UPC 6: LC/APC

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