Module High Power Optical Fiber Amplifier M1231 Series

Application

1. Analog CATV Transmission System
2. FTTH system
3. Optical distribute system
4. Free space optical communication
5. Research and Design area

Feature

●Low noise figure: less than 4.5dB at 0dBm input.

●Extremely high power output: up to 2W total output power, generate 2000～4000 ONUs.

●Er-Yb co-doped double cladding amplification technology: Pump dump patent.

●Extremely low CSO: ＜-70dBc

●23dBm×N, 20dBm×N, or 17dBm×N output is optional.

●High stability and reliability: MTBF＞150000 hours

●Intelligent temperature control system: power consumption and hot radiation reduce 30% than common products.

●Output power adjustable.

●Compatible with Bellcore GR-1312-CORE

Description

The product is high output power C-Band Er-Yb co-doped double cladding optical fiber amplifier. The key components of the product are high reliability multimode PUMP laser and the double cladding optical fiber. A proprietary ATC(Automatic Temperature Control) and APC(Automatic Power 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 display are intelligent and easy.

The amplifier employ double cladding Erbium Ytterbium co-doped fiber, and employ the high power multimode pump, with a 10 times conversion efficiency higher than the single mode general technology, and therefore have a lower relative cost and more compact size and lower power consumption, in particular, for FTTH or FTTB or other large distribution system applications.

The amplifier employs patented technology for pump dump (Patent No. ZL200820150412.3),and the patented technology for the laser driver circuit (Patent No. ZL200820150413.8), to get better and more stable performance.

This module employs +5V power supply, and patented laser drive and temperature control circuit, ensure lower consumption , lower hot radiation, and easy to integrate.

Optical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit
Wavelength	λc	1540	1550	1562	nm
Output power (1)	Po	27	------	33	dBm
Input Power	Pi	-3	------	+10	dBm
Gain	G	------	20	------	dB
Noise Figure (2)	NF	------	5.0	------	dB
Output power stability	ΔPo	-----	±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	4.5	5.0	5.5	VDC
Consumption ※	P	-----	----	30	W

※Actual consumption depend on the output power and environment temperature

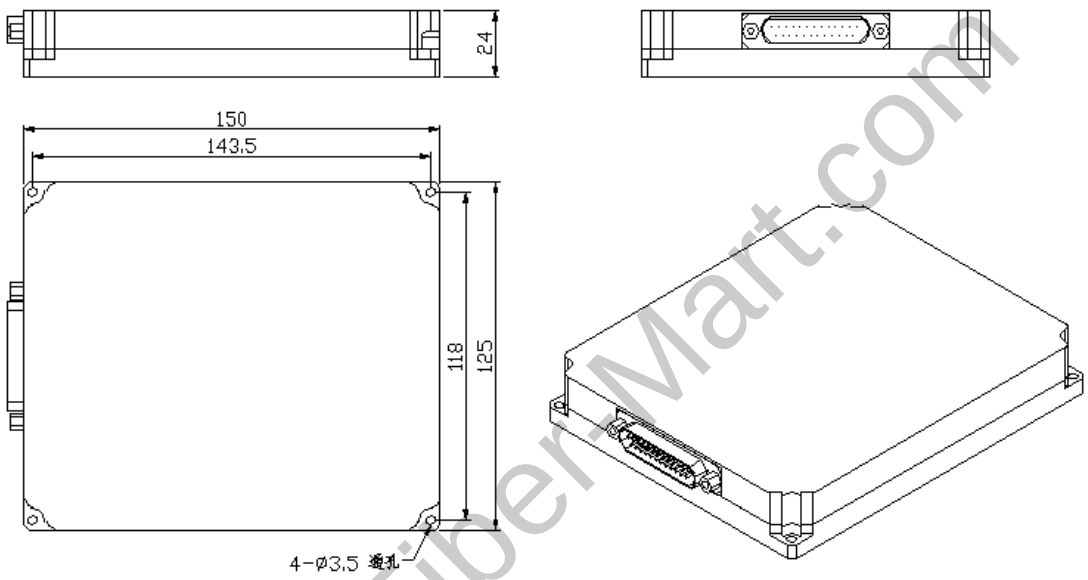
Environmental Characteristics

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

（3）：Non-condensing

Mechanical Dimension

M1231 series： 150×125×24 (mm)



Order Information

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Category	Structure	Application	Input power	Output power 注1	Output ports	Voltage	Interface
M:Module	12:module dimension 150×125×24mm	3：High power amplifier	1：-3~10dBm 9：other	13：13dBm … 22：22dBm	1:1port 2:2ports	7：5VDC 8：3.3VDC	1：SC/UPC 2：SC/APC 3：FC/UPC 4：FC/APC 5：LC/UPC 6：LC/APC