

GA1A10 Series CATV Fiber Amplifier

Application

1. Analog CATV long distance transmission
2. Video optical transmission system
3. Optical distributed system
4. FTTH



Feature

- Low noise figure: less than 4.5dB at 0dBm input
- Extremely low CSO: <-70dBc
- Double power supply high performance hotswap: Mix 220V and -48V
- High stability and reliability: MTBF>100000 hours
- Network management Agent hotswap
- Perfect network interface: Ethernet, RS-485 and RS-232
- Support Telnet and SNMP
- 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
- Variety mechanical and circuit structure (including pure optical module, module with electric, benchtop and 1U rack)
- 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.

Dual powers mixed hotswap design ensures the product actual dual power supplies. Extremely improve MTBF. Back up for the power supply system

Employ unique intelligent temperature system. >45°C, fan work;<40°C, fan stop. Ensure system temperature stability and fan life. Professional air duct design ensures excellent temperature stability.

Intelligent monitor and manage system. Perfect network interface, RS232, RS485 and Ethernet. Open network interface ensure connectivity to any other system. Ethernet management is compatible with SNMP protocol. Hotswap Network Agent is convenient to operate and upgrade.

Optical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit
Wavelength	λ_c	1530	1550	1562	nm
Output Power ⁽¹⁾	Po	13	-----	24	dBm
Input power	Pi	-3	-----	+10	dBm
Gain	G	-----	20	-----	dB
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) : Optional

(2) : Test at 0dBm input

Electric Characteristics

Parameter	Symbol	Min	Typ	Max	Unit
Power Supply ※	Vps	85/170	110/220	132/264	VAC
Consumption ※※	P	-----	-----	18	W

※ Power supply 110VAC, 220VAC and -48VDC is optional.

※※ Actual consumption depend on the output power and environment temperature.

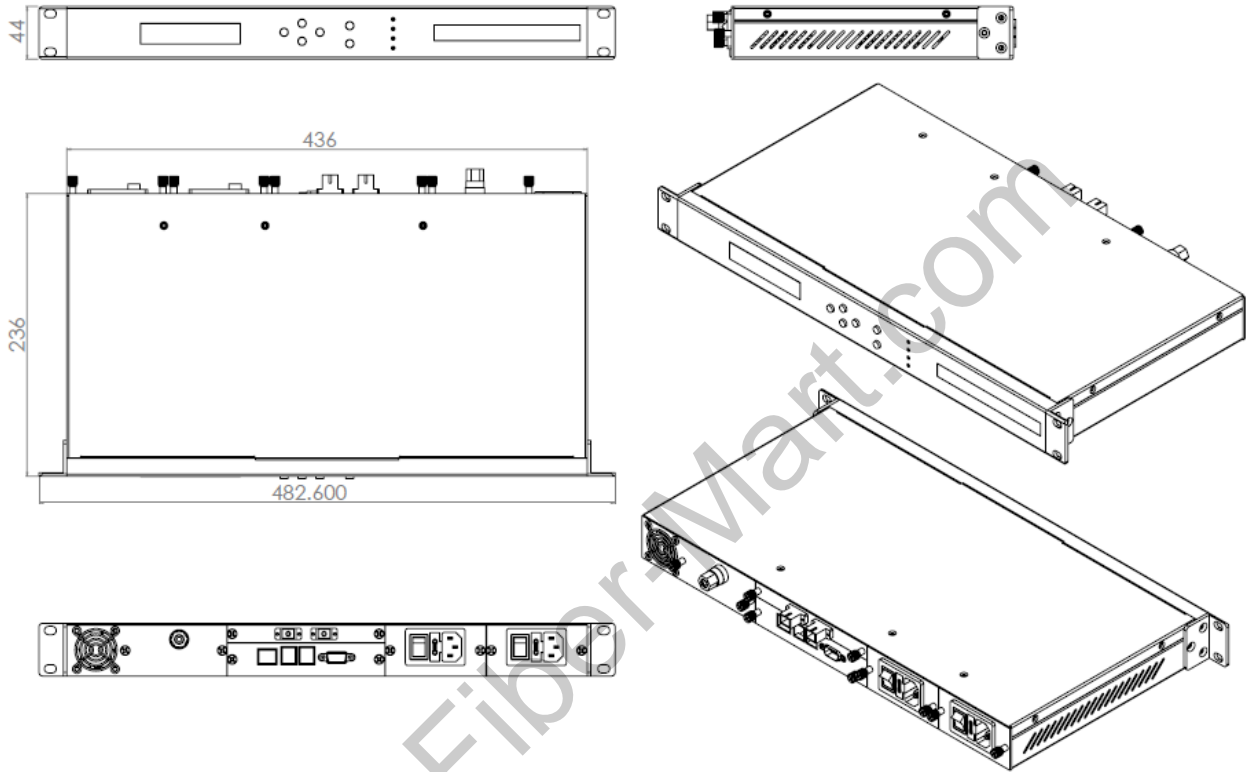
Environmental Characteristics

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

GA1200:483*236*44 (mm)



Order Information

GA — — — — — — — —

Category	Structure	Application	Input power	Output power ^註 1	Voltage1	Voltage 2	Interface	SNMP
GA: Fiber Amplifier	1A:1U Compact dual power supply structure	1: CATV	1:- 3~10dBm 9:other	10: 10dBm ... 24:24dBm	1:110VAC 2:220VAC 3:110~220VAC 4:-48VDC 9:other	1:110VAC 2:220VAC 3:110~220VAC 4:-48VDC 9:other 0: W/0	2:SC/APC 4:FC/APC 6:LC/APC 9:other	0: W/0 1: W/

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