

SOA Optical Amplifier GA1A Series

Application

- 100G optical transmission system



Feature

- High-performance dual-pluggable power supply: 110V/220V mixed with -48V
- Low noise figure: Typ 6dB
- Perfect network interface: Ethernet, RS-485 and RS-232
- Support Telnet and SNMP network management
- Gain can be adjustable by network and manual.
- High precision AGC and ATC circuit.
- High saturation output power
- Flexible mechanical and circuit structure.
- OEM is available
- All performance compatible with Bellcore GR-1312-CORE

Description

The product is designed for 100G high speed optical transmission system. The key components of the product are high reliability SOA.

The optical circuit is specially designed for digital optical fiber communication system including: (1) cover 1310nm low dispersion wavelength; (2) Support dual SOA amplifier in 1U (equal to 2 device); (3) Broad input power range, output power adjustable.

Employ the intelligent temperature control system, the fan is on when the module temperature above 45°C, meanwhile it will stop as the temperature is below 40°C, which ensure the thermal stability and fan life-time. Professional air duct design ensures the best temperature stability.

Intelligent monitor and manage system. Perfect network management interface: RS232 RS485 and Ethernet, and the open network management interface ensure the connectivity with all network management system.

Optical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit
Wavelength	$\lambda c 1$	1290	1310	1330	nm
Saturated output power ⁽¹⁾	Po	-----	-----	8	dBm
Input Power	Pi	-15	-----	+6	dBm
Gain	G	-----	-----	20	dB
Noise Figure ⁽²⁾	NF	-----	6	8	dB
Output power stability	ΔP_o	-----	± 0.05	± 0.1	dB
Return Loss	RL	-----	-----	-45	dB
Polarization Dependent Gain	PDG	-----	-----	1	dB
PMD	PMD	-----	-----	0.5	ps

(1) : Pre- Online、Booster is optional

(2) : Test at -20dBm input, <8dB

Electrical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit
Power Supply ※	Vps	85/170	110/220	132/264	VAC
Consumption ※※	P	-----	-----	10	W

※ 110VAC, 220VAC and -48VDC is optional

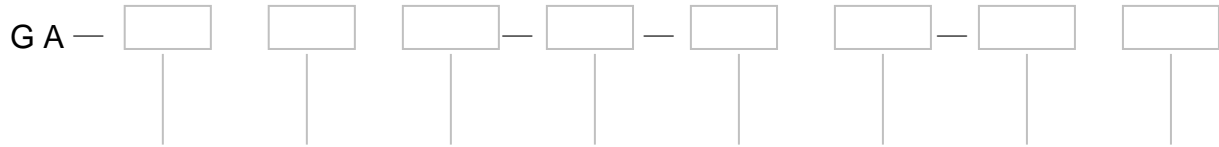
※※Actual consumption depend on the output power and environment temperature.

Environmental Characteristics

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

(3) : Non-condensing

Order Information



Category	Structure	Application	Input Power	Output power	Power supply1	Power supply2	Interface	SNMP
GA: Fiber Amplifier	1A:1U Compact dual power structure	1: SOA	2: Pre-amplifier	8: 8dBm	1:110VAC	1:110VAC	2:SC/PC	0: W/O
			3: online-amplifier	...	2:220VAC	2:220VAC	4:FC/PC	1: W/
			4: booster-amplifier		3:110~220VAC	3:110~220VAC	6:LC/PC	
			9:other		4:-48VDC	4:-48VDC	9:other	
					9:0ther	9:0ther	0: W/O	

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