

Customized 1310nm Semiconductor Optical Amplifier (SOA)

Solutions for Metro, Regional & Long Haul



Description

Semiconductor optical amplifier (SOA) uses the semiconductor as the gain medium, which are designed to be used in general applications to increase optical launch power to compensate for loss of other optical devices. Inimitable AGC or APC circuit ensures the stability of output power.

The optical circuit is specifically designed for digital optical fiber communication systems and has the following characteristics.

- (1) Covers a low dispersion wavelength of 1310 nm
- (2) A wide range of input power; output power is adjustable

Features

- OEM available
- High-precision APC & AGC circuit
- High saturated output power
- Bellcore GR-1312-CORE compliant
- Ethernet, RS-485 and RS-232 interface
- Flexible mechanical and circuit structure
- Support Telnet and SNMP network management

Application

- 100G optical transmission system

Optical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit
Wavelength	λ_c	1290	1310	1330	nm
Saturated output power	P_o	-----	-----	8	dBm
Input Power	P_i	-15	-----	6	dBm
Gain	G	-----	10	14	dB
Noise Figure	NF	-----	6	8	dB
Output power stability	ΔP_o	-----	± 0.05	± 0.1	dB
Return Loss	RL	-----	-----	-45	dB
Polarization Dependent Gain	PDG	-----	-----	0.3	dB
Polarization Mode Dispersion	PMD	-----	-----	0.5	ps

Electrical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit
Power Voltage	V_{ps}	85/170	110/220	132/264	VAC
Power Consumption	P	-----	-----	18	W

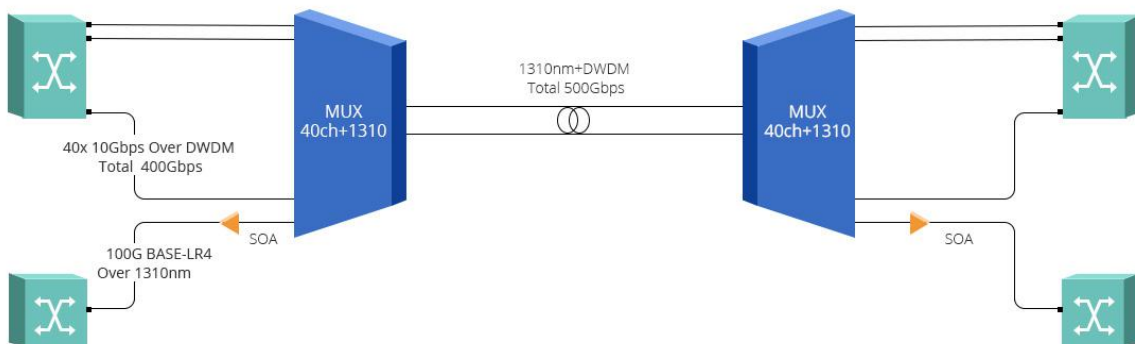
Environmental Characteristics

Operation	Symbol	Min	Typ	Max	Unit
Operation Temperature	T_w	-5	-----	60	°C
Storage Temperature	T_s	-40	-----	80	°C
Humidity (1)	-----	10	-----	85	%

(1) No condensation

500Gbps DWDM Network Service by SOA Amplifier

SOA (Semiconductor Optical Amplifier), implemented between the 1310nm multiplexer port and the LR4 transceiver, are amplifying the 1310nm spectrum. It can be used in the 10G/100G system, suitable for system design conveniently.



Order Information

Operation Mode	AGC & APC
Input Power	-15dBm~+6dBm
Typical Input Power	-3dBm -5dBm -6dBm -4dBm -2dBm
Saturated Output Power	8dBm
Gain	10dB 11dB 12dB 13dB 14dB
Connector	LC/UPC SC/UPC FC/UPC ST/UPC LC/APC SC/APC FC/APC ST/APC
Power 1	100V-240VAC 36V-72VDC
Power 2	100V-240VAC 36V-72VDC None

*Customized specifications are available upon request.



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