Semiconductor Optical Amplifier (SOA)

Amonics
Specialist in Optical Amplifiers

Others

Key Features

- 1310nm and 1550nm wavelength coverage
- High fiber-to-fiber gain
- 1MHz with 10ns pulse width
- Modulation available
- PM Panda fiber input
- Good spectral stability
- Compact size
- Good performance cost ratio

Benchtop Casing

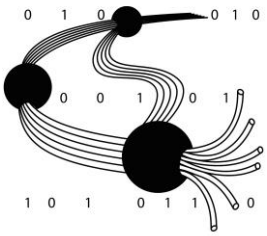
Description

Amonics' SOA is a polarization maintaining optical amplifier with high fiber-to-fiber gain. It is designed for transmitter applications to increase optical launch power to compensate for the loss of other optical devices.

The benchtop version incorporates a user-friendly front panel housing a LCD monitor display, key switch, power control knob and optical connectors. RS232 computer interface is also equipped on the rear panel. 1MHz with 10ns pulse width intensity modulation is available.

The OEM module version is an ideal building block for OEM system integration, especially in optical communication network and CATV applications. It requires only a single +5V power supply.

Application



- Booster and in-line amplification in WDW Metro Network Systems
- Network loss compensation

ISO 9001 : 2015
Certificate No.: CC 5346

Our product is manufactured under a HKQAA ISO 9001 certified quality management system. The ISO 9001:2015 certification applies to the Hong Kong production site only.

JAPAN DEVICE 日本デバイス株式会社
www.j-device.com
E-mail sales@j-device.com
Tel 03-6262-3424 Fax 03-6800-5883

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1310 nm / 1480 nm SOA Specifications

Model	ASOA13-19	ASOA13-PM-19	ASOA14-26
Operation Wavelength	1280 nm to 1340 nm	1260 nm to 1340 nm	1480 nm to 1510 nm
3 dB Optical Bandwidth	Min. 50 nm	Min. 60 nm, Typ. 80 nm	Typ. 30 nm
Saturated Output Power @ -3 dB input	Min. 6 dBm, Typ. 7 dBm	Min. 5 dBm, Typ. 7 dBm	Min. 9 dBm
Small Signal Gain at @ - 25 dBm Signal	Min. 18 dB, Typ. 19 dB	Min. 15 dB, Typ. 19 dB	Typ. 26 dB
Noise Figure	Typ. 7 dB, Max. 7.5 dB	Max. 7.5 dB	Max. 8 dB
Gain Ripple with Respect to wavelength	Typ. 0.5 dB, Max. 1 dB	Typ. 0.5 dB, Max. 1 dB	Max. 1 dB
Polarization Dependent Gain	Typ. 1.5 dB	Typ. 15 dB	Typ. 1.5 dB
Fiber Type	SMF	PMF	SMF

* Other center wavelength or gain value is on request

Other wavelength SOA Specifications

Model	ASOA91-20	ASOA97-20	ASOA10-25
Operation Wavelength	Typ. 915 nm	Typ. 970 nm	Typ. 1050 nm
3dB Optical Bandwidth	Typ. 50 nm	Typ. 25 nm	Typ. 45 nm
Saturated Output Power at -3 dB input	Typ. 10 dBm	Typ. 11 dBm	Typ. 10 dBm
Small Signal Gain at - 25 dBm Signal	Typ. 20 dB	Typ. 20 dB	Typ. 25 dB
Noise Figure	Max. 8 dB	Max. 8 dB	Max. 10 dB
Gain Ripple with Respect to wavelength	Min. 10 dB	Min. 6 dB	Min. 10 dB
Polarization Dependent Gain	Typ. 0.2 dB	Typ. 0.2 dB	Typ. 0.2 dB
Fiber Type	SMF or PMF	SMF or PMF	SMF or PMF

* Other center wavelength or gain value is on request

Other Option

- Input and/or Output Isolator
- Intensity Modulation

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General Parameters

	Benchtop	Module
Operation Temperature	0 to 40 ˚C	0 to 40 ˚C
Storage Temperature	-10 to 70 ˚C	-10 to 70 ˚C
Power Supply	90 – 240 VAC, 47 – 63 Hz	5.0 ± 0.1 VDC
Dimensions	260(W) x 330(D) x 120(H) mm	Customization on request
Electrical Connector	NA	14-pin MIL Socket
Protection	SOA overheat warning	SOA overheat warning
LCD Display	SOA Current (mA)	NA
Control	Keylock switch, output power	NA
Computer Interface	RS232	NA
Optical Connector	FC/APC, FC/UPC, SC/APC, SC/UPC	FC/APC, FC/UPC, SC/APC, SC/UPC

Ordering Information

Product Code	ASOAaa-bb-c-dd ASOAaa-PM-bb-c-dd	aa : First two digits of Wavelength in nm bb : Small Signal Gain in dB c : B for Benchtop case, M for Module case dd : FA for FC/APC, FC for FC/UPC, SA for SC/APC, SC for SC/UPC

Amonics undertakes continuous and intensive product development to ensure its product performance at the highest technical standards. As a result, the specifications in this document are subject to change without notice.

Amonics Limited (Hong Kong)
14/F, Lee King Industrial Building, 12 Ng Fong Street,
San Po Kong, Kowloon, Hong Kong
Tel :+852 2428 9723 Fax :+852 2428 9704

Beijing Amonics Co. Ltd. (Beijing)
Room 902, Unit 1 Joy Mansion, NO.99 Chaoyang North Road, Beijing China 100123
Tel :+86 10 8478 3386 Fax :+86 10 8478 3396
Email: contact@amonics.com Website: www.amonics.com