1550nm Semiconductor Optical Amplifier



Key Features

- Wide wavelength coverage
- High fiber-to-fiber gain
- 1MHz with 10ns pulse width in option
- Compact modulation size available
- Good spectral stability
- Good performance cost ratio

Benchtop Casing





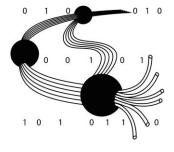
Description

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



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

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Specifications

| Model | ASOA15-16 | ASOA15-PM-28 | ASOA15-13 | ASOA15-PM-14 |
|--|---------------------------|---------------------------|-----------------------------|-----------------------------|
| Туре | In-Line | In-Line | Booster | Booster |
| Operation Wavelength | 1510 nm to 1570 nm | 1510 nm to 1590 nm | 1528 nm to 1562 nm | 1528 nm to 1570 nm |
| Saturated Output Power (at 3dBm input) | Typ. 5 dBm | Min. 6 dBm, Typ. 8 dBm | Min. 12 dBm, Typ. 14 dBm | Min. 13 dBm, Typ. 16 dBm |
| Small Signal Gain (at -25 dBm input) | Min. 16 dB | Min. 25 dB, Typ. 28 dB | Min. 10 dB, Typ. 13 dB | Min. 12 dB, Typ. 14 dB |
| Noise Figure (at -25dBm input) | Max. 9 dB | Max. 9 dB | Typ. 8 dB, Max. 9 dB | Max. 9 dB |
| Gain Ripple with Respect to Wavelength (RMS) | Typ. 0.5 dB, Max. 1 dB | Max. 2 dB | Max. 0.5 dB | Max. 1.5 dB |
| Polarization Dependent Gain | Typ. 1.5 dB | Min. 10 dB | Typ. 1.5 dB | Min. 10 dB |
| 3dB Optical Bandwidth | Typ. 50 dB | Min. 40 dB, Typ. 45 dB | Typ. 55 dB | Тур. 60 dВ |
| Optical fiber | SMF-28 | PM Panda fiber | SMF-28 | PM Panda fiber |

Option: 1) Input and/or Output Isolator:

Min. 30dB (standard) or Min. 40dB (high)

2) Intensity Modulation

General Parameters

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|-----------------------|--------------------------------|---|--|
| | 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 | 150(W) x 100(D) x 18(H) mm or 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.

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