# 1550nm Semiconductor Optical Amplifier



**Benchtop Casing** 

## **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







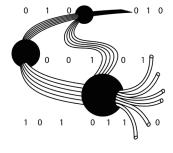
### **Description**

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.

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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	Тур. 50 dВ	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**

	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**

aa: First two digits of Wavelength in nm
bb: Small Signal Gain in dB
Color : 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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