

## Key Features

- High output power
- Similar gain & noise figure as typical EDFA
- Lower power consumption compared to conventional Raman amplifier
- Distortion-free amplification

2U Rackmount Casing



Benchtop Casing

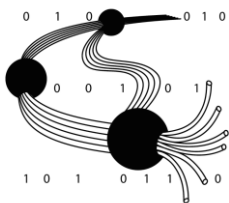


## Description

Amonics' O-band Bismuth-doped fiber amplifier (BDFA) uses bismuth-doped fiber as the gain medium. The BDFA features high small signal gain and low noise figure. The silica-based Bismuth-doped fiber offers the similar fundamental advantages as erbium-doped fiber used for amplification in the C and L bands.

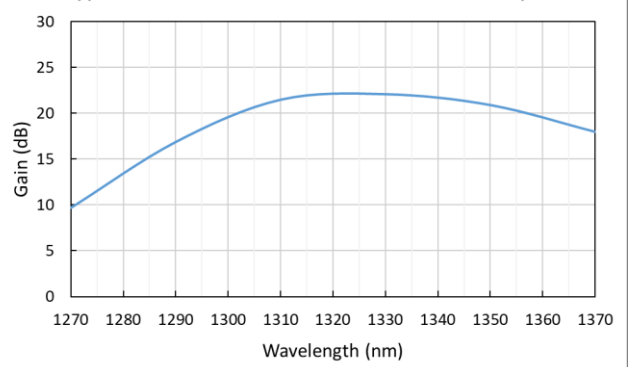
The turnkey microprocessor-controlled BDFAs provide illustrative alarms and status indicators. An integrated RS232 computer interface enables easy control, diagnostic functions and data acquisition. The BDFAs are available in both benchtop and rackmount casings.

## Application



■ Datacom Network

Typical ABDFA-O-21 Gain Profile @ 0 dBm input



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.

## Specifications

Model (single channel)	ABDFA-O-18	ABDFA-O-21
Operating Wavelength	1290 nm to 1360 nm	1290 nm to 1360 nm
Input Signal Level	-30 to 0 dBm	-30 to 0 dBm
Saturation Output Power @ 0 dBm input power, 1310 nm	Min. 18 dBm	Min. 21 dBm
Noise Figure @ 0 dBm input power, 1310 nm	Max. 8.0 dB	Typ. 6.5 dB, Max. 8.0 dB
Small Signal Gain @ -30 dBm input power, 1310 nm	Min. 23 dB	Min. 23 dB
Control Mode	ACC, APC (optional)	ACC, APC (optional)
Model (multichannel)	ABDFA-O-DWDM-19	
Operating Wavelength	1280 nm to 1330 nm	
Composite Input Power	-30 to 0 dBm	
Composite Output Power	Min. 19 dBm @ 0 dBm input power	
Noise Figure	Typ. 6.5 dB, Max. 7.0 dB @ 0 dBm input power	
Gain Flatness	Max. $\pm 1.5$ dB	
Control Mode	ACC	

## General Parameters

	Value
Operation Temperature	0 to +40 °C
Storage Temperature	-10 to +70 °C
Power Supply	90 – 240 VAC, 47 – 63 Hz
Benchtop Dimensions	260(W) x 330(D) x 120(H) mm
2U Dimensions	485(W) x 360(D) x 90(H) mm
Mechanical Safety Control	Key-lock switch, BNC interlock key
Optical Power Monitoring	Output power, Input power
Remote Control Port	DB-9 female (RS232), Control software included, RJ-45 (TCP/IP Ethernet) (optional)
Protection	Pump laser (TEC) overheat
Optical Connector	FC/APC, FC/UPC, SC/APC, SC/UPC
Optical Fiber	SMF-28

## Ordering Information

Product Code	ABDFA-O-aa-b-cc / ABDFA-O-DWDM-aa-b-cc	aa : Saturation output power / Composite output power in dBm b : B for Benchtop, R for 19" Rackmount cc : FA for FC/APC, FC for FC/UPC, SA for SC/APC, SC for SC/UPC
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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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