O-Band Bismuth-doped Fiber Amplifier (Single-Channel)

Amonics
Specialist in Optical Amplifiers

1310nm - CW

Key Features

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



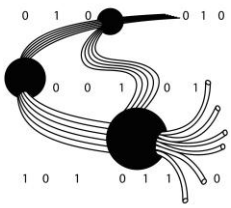
2U Rackmount Casing

Description

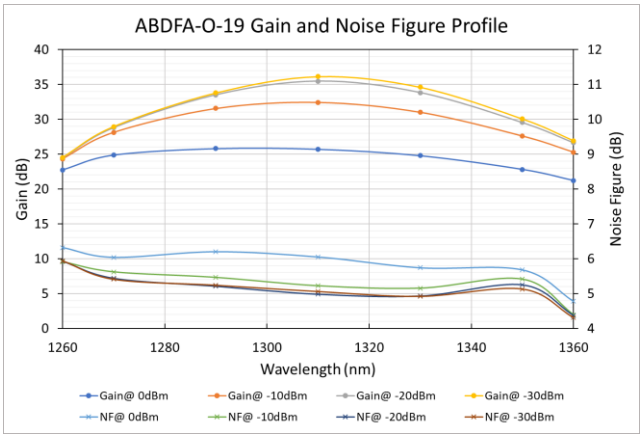
Amonics' O-band Bismuth-doped fiber amplifier (BDFA) uses bismuth-doped fiber as the gain medium. The BDFA features high small signal gain and low noise figure. The silica-based Bismuth-doped fiber offers the similar fundamental advantages as erbium-doped fiber used for amplification in the C and L bands.

The turnkey microprocessor-controlled BDFAs provide illustrative alarms and status indicators. An integrated RS232 computer interface enables easy control, diagnostic functions and data acquisition.

Application



- Datacom Network



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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Full O-Band BDFA Specifications

Model	ABDFA-O-19
Operating Wavelength	1260 nm to 1360 nm
Input Signal Level	-30 to 10 dBm
Saturation Output Power	Min. 19 dBm @ 0 dBm input power, 1310 nm
Noise Figure	Typ. 6.5 dB, Max. 7.0 dB @ 0 dBm input power, 1310 nm
Small Signal Gain	Min. 22 dB @ -30 dBm input power, 1310 nm
Control Mode	ACC

Shorter Wavelength O-Band BDFA Specifications

Model	ABDFA-O-S-19
Operating Wavelength	1260 nm to 1340 nm
Input Signal Level	-30 to 10 dBm
Saturation Output Power	Min. 19 dBm @ 0 dBm input power, 1310 nm
Noise Figure	Typ. 6.5 dB, Max. 7.0 dB @ 0 dBm input power, 1310 nm
Small Signal Gain	Min. 22 dB @ -30 dBm input power, 1310 nm
Control Mode	ACC

Longer Wavelength O-Band BDFA Specifications

Model	ABDFA-O-L1	ABDFA-O-L2
Operating Wavelength	1290 nm to 1350 nm	1280 nm to 1360 nm
Input Signal Level	-30 to 10 dBm	-30 to 10 dBm
Saturation Output Power @ 0 dBm input power, 1310 nm	Min. 19 dBm / Min. 21 dBm / Min. 23 dBm	Min. 19 dBm / Min. 21 dBm / Min. 23 dBm
Noise Figure @ 0 dBm input power, 1310 nm	Typ. 6.5 dB, Max. 7.0 dB	Typ. 6.5 dB, Max. 7.0 dB
Small Signal Gain @ -30 dBm input power, 1310 nm	Min. 23 dB	Min. 23 dB
Control Mode	ACC	ACC

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General Parameters

	Value
Operation Temperature	0 to +40 ˚C
Storage Temperature	-10 to +70 ˚C
Power Supply	90 – 240 VAC, 47 – 63 Hz
Rackmount Dimensions	1U: 485(W) x 360(D) x 45(H) mm; 2U: 485(W) x 360(D) x 90(H) mm; 2U Half Rack: 200(W) x 376(D) x 90(H) mm
Mechanical Safety Control	Key-lock switch, BNC interlock key
Optical Power Monitoring	Output power, Input power (optional)
Remote Control Port	DB-9 female (RS232), Control software included, RJ-45 (TCP/IP Ethernet) (optional)
Protection	Pump Power Protection
Optical Connector	FC/APC, FC/UPC, SC/APC, SC/UPC
Optical Fiber	SMF-28

Ordering Information

Product Code	ABDFA-O-S-aa-b-cc ABDFA-O-L1-aa-b-cc ABDFA-O-L2-aa-b-cc ABDFA-O-aa-b-cc	aa : Saturation output power in dBm b : H for 2U Half Rack, R for 19” Rackmount cc : 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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