

EDFA MODULE

1. Product Description

EDFA module has been widely used in the fields of optic fiber sensing and optic fiber communication. EDFA uses 980nm or 1480nm pump laser to provide energy, and its interior uses AGC、ACC or APC as the control mode. The interior of the product adopts elaborate temperature-controlling technology, which makes the module have excellent thermal adaptability. Even under the severe working temperature (-20~60°C;), the module can also work normally. This product has numerous advantages such as high optical output power, high gain(>20dB), gain adjustability and so on. EDFA is divided into two products: C band and L band, which can meet the various needs of our customers.



High-reliability power EDFA uses DC+5V/GND input power and flexible man-machine interface which facilitate setting up the internal parameters of EDFA through RS232 serial port. Besides, it can realize the parameters real-time monitoring in the modules and remote management and controlling on line.

2. Features

Low noise figure

High output power, up to 23 dBm

Flexible control mode

High stability and high reliability

Operating ambient temperature: -20~60°C;

Customizable optical output power and configuration

3. Applications

Dense Wavelength Division Multiplexing

Long Haul fiber optical communication

National defense and military

Optical fiber sensing

Oil and gas field monitoring

4. Optical property indexes

Parameter	Unit	Minimum	Typical Value	Maximum
Operating wavelength range	nm	1528	1550	1563
Total input power	dBm	-	0	-
Saturation output power @0dBm signal input (1)	dBm	-	-	23

Noise figure @0dBm signal input	dB	-	5.5	-
Input/ Output optical isolation	dB	40	-	-
Output power stability	dB	-	0.05	0.1
Output power adjustability	Yes			
Fiber Type (Single module)	SMF 9/125um NA=0.13			
Fiber length	Customizable			
Connector	FC/APC, other types are optional			
Operating temperature range	°C;	-20	-	+60
Storage temperature range	°C;	-40	-	+85
Operating humidity range	%	5	-	90
(1) Test at single temperature. (2) No condensation.				

5. Mechanical structure

Structure Type	Parameter	Specification	Unit	Remarks
Module	Dimension	90x70x15/90x70x12	mm	
	Power interface	DC+5V/GND Twisted-pair		Typical
	Input/output pigtail	SM		
	Communication interface	RS-232		Optional

6. Electrical Properties

Structure Type	Parameter	Specification	Unit	Remarks
Module	Power supply	DC +5V/GND		
	Power consumption	< 20	w	At normal temperature

7. Communication type

Structure Type	Parameter	Specification
Module	Communication interface	26Pin 2.00mm Pitch
	Protocol	RS232
	Communication user interface	Can read or set optical output power