C-band Desktop Single-mode Erbium-Ytterbium Co-doped Fiber Amplifier 40dBm

Product Description

The High-Power Erbium-Doped Fiber Amplifier (EYDFA-HP) operates based on the principle of stimulated laser amplification of optical signals in erbium-ytterbium co-doped fiber. It utilizes a uniquely designed amplification optical path and a reliable high-power laser heat dissipation

process to achieve high-power laser output within the 1535~1565nm wavelength range. With the advantages of high power and low noise, it is suitable for applications such as fiber optic communication and laser radar.

Product features

Up to 3W power、 High gain coefficient、 Wide wavelength range

Part Number

MP-EYDFA-C-10W-SM-B

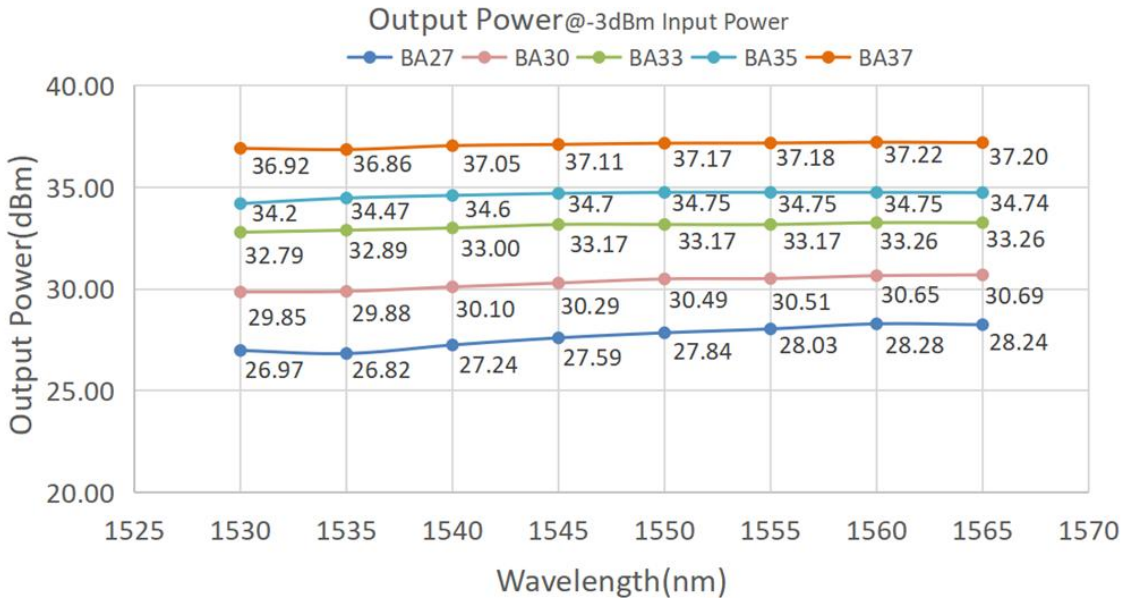
Application area

Fiber optic communication、 Fiber optic sensing、 Fiber lasers

Core parameters

Wavelength Range	Saturated Output Power	Connector
1535-1565nm	40dBm	FC/APC

General Parameters



Technical Parameters

Optical Specifications	Unit	Typical Value	Notes
Wavelength Range	nm	1535~1565	
Input Power	dBm	-6~+10	
Saturated Output Power	dBm	27/30/33/35/37/40	@ -3dBm input
Output Power Adjustable Range	-	10%~100%	
Noise Figure	dB	<6.0	
Gain Flatness	dB	⩽1	@ different wavelengths amplified separately

Polarization-Dependent Gain	dB	<0.5	
Polarization Mode Dispersion	ps	0.5	
Input/Output Isolation	dB	>35	
Optical Power Monitoring	-	Input power monitoring, output power monitoring	
Pigtail Type	-	SMF-28	
Pigtail Connector Type	-	FC/APC	For power testing only
Operating Mode	-	Automatic Current Control (ACC) / Automatic Power Control (APC)	

Electrical and Environmental Parameters	Benchtop	Module
Control Method	Buttons	RS232 serial communication
Communication Interface	Optional	DB9 Female
Power Supply	100~240VAC,<150W	12V DC,<120W

Dimensions		260(W) × 320(D) × 120(H) mm	139(W) × 235(D) × 70(H) mm
Dimensions	power 27/30/33/35dBm	260(W)×320(D)×120(H)mm	125(W)×150(D)×31.5(H)mm
	power 37/40 dBm	360(W)×350(D)×120(H)mm	139(W)×235(D)×70(H)mm *note
Operating Temperature Range		-5 to +35°C	
Operating Humidity Range		0 to 70%	

Note: The 37dBm and 40dBm modules have built-in cooling fans.

Ordering Information / PN#					
EYDFA	Operating Wavelength	Amplifier Type	Output Power (dBm)	Fiber Type	Package Type
	C = C-Band	HP-BA = High-Power BA Amplifier	27/30/33/35/37/40	SM = Single-Mode Fiber	M = Module, B = Benchtop

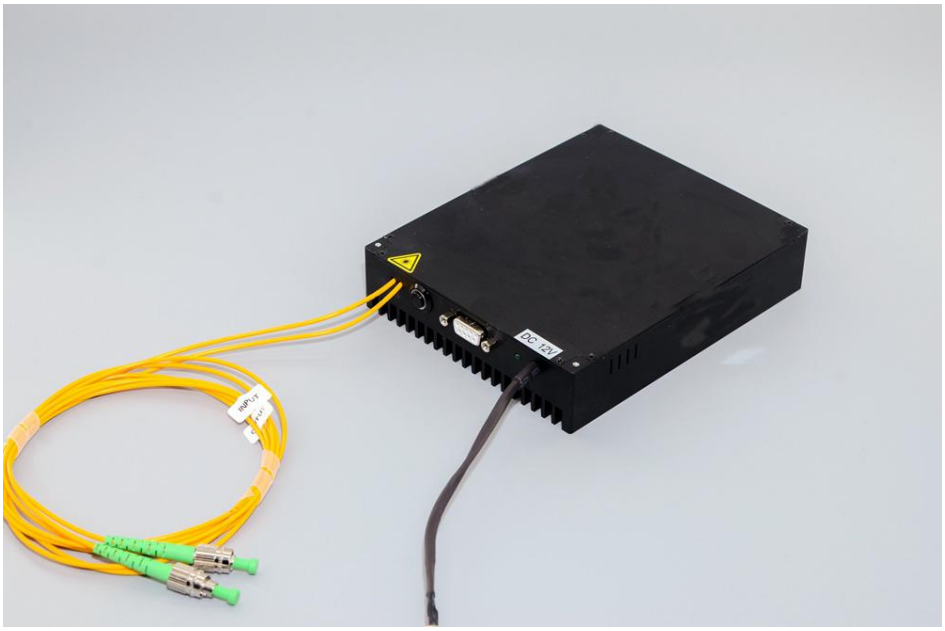
*Note 1:

ACC Mode - Automatic Current Control: The user sets the EDFA pump operating current, which is automatically locked by the EDFA to maintain constant pump current. When input optical power fluctuates, the output power fluctuates

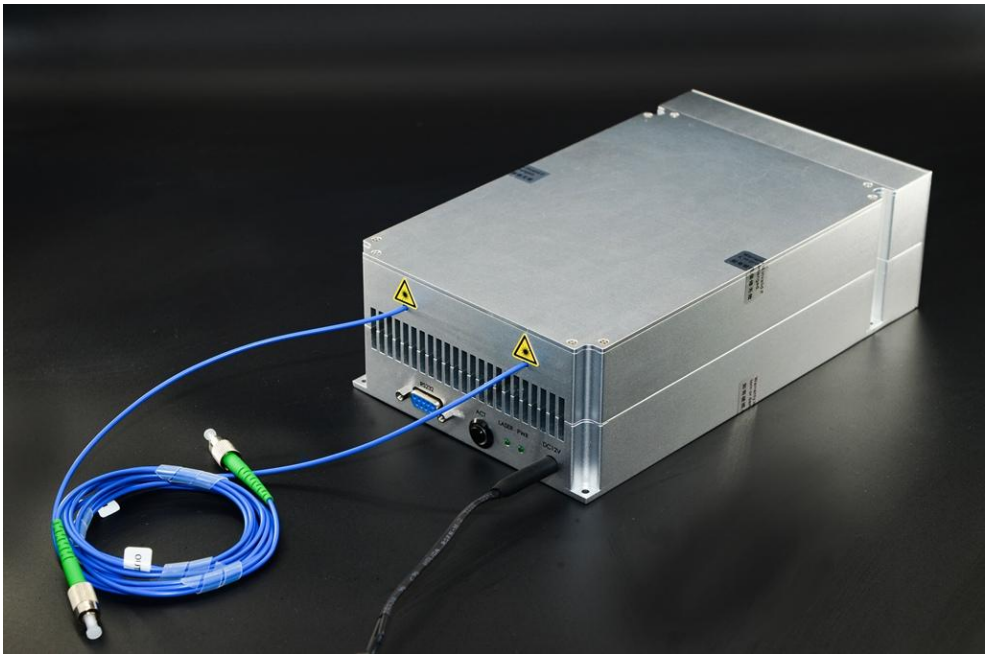
accordingly. This mode is suitable for all EDFA models, and PA-type amplifiers only support ACC mode.

APC Mode - Automatic Power Control: The user sets the signal output power of the EDFA. The PD automatically monitors and feeds back the output power, and the EDFA controls and adaptively adjusts the pump to stabilize the output signal. The power adjustment range in APC mode is typically 10%~100%. The advantage of APC mode is that it minimizes output power fluctuations when input power varies, making it suitable for power-type and line-type EDFAs, though it is not ideal for low repetition frequency pulsed signals.

Benchtop 260(W) × 320(D) × 120(H)



0.5W~3W High Power Module (150 × 125 × 31.5 mm)



5W~10W High Power Module (139 × 235 × 70 mm)