

The Erbium Fiber Small Signal Amplifier (PA, Pre-Amplifier)

C-band (* Note 1) erbium-doped fiber Pre-amplifier (PA amplifier for short) is an amplifier specially used for weak optical signals in the range of - 45dBm ~ - 25dBm. The typical gain of a small signal is as high as 35 ~ 45 dB and has a low noise figure. It is usually used before a photodetector to improve its detection ability for weak optical signals.

Characteristics

- High Gain
- High Power
- Low Noise

Applications

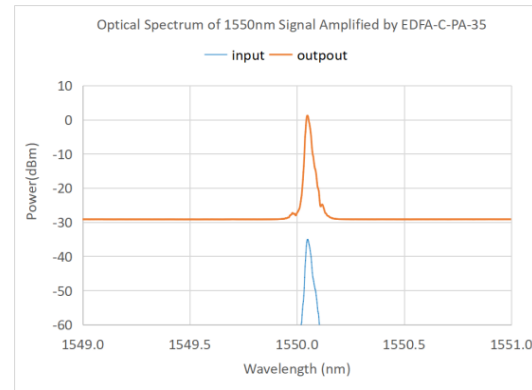
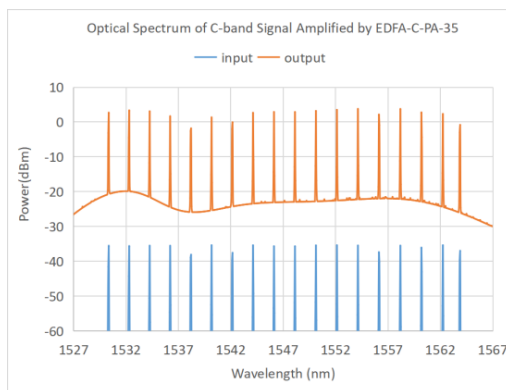
- Fiber Communication
- Fiber Sensing
- Fiber Laser



Desktop Model



OEM Model



Optical Parameters	Unit	Typical Value		Remarks
		EDFA-PA-35	EDFA-PA-45	
Product Number	-	EDFA-PA-35	EDFA-PA-45	
Operating Wavelength	nm	1530~1565nm		C-band
Input Signal Power	dBm	-35~-25	-45~-25	
Saturation Output Power	dB	35@-35dBm input	45@-45dBm input	
Noise Figure	dB	4.5		
Polarization Dependent Gain	dB	<0.3		
Polarization Mode Dispersion	ps	0.5		
Input/output Isolation	dB	>35		
Optical Power Monitoring	-	Output power		
Optical Fiber	-	SMF-28 SM fiber		
Fiber connectors	-	FC/APC		
Control mode	-	ACC/ APC		

General Parameters	Desktop	Module
Control function	Keystroke	RS232 serial Communication
Remote Control Port	Optional	DB9 Female
Power Supply	AC100~240V, <30W	DC5V, <15W
Dimensions	260(W)×280(D)×120(H)mm	125(W)×150(D)×20(H)mm
Operation Temperature	-5~+35°C	
Operation Humidity	0~70%	

Ordering Information/ Product Number					
EDFA	wavelength	Type	Optical Gain	Fiber	Packaging
	C=C band	PA=Pre-Amplifier	35=35dB@-35dBm 45=45dB@-45dBm	SM=SMF-28	M - Module B - Desktop

*Note 1: This EDFA product is designed for single wavelength signal input within the Wavelength range, regardless of the gain spectrum flatness when multiple wavelengths are input simultaneously. As shown on this page, the EDFA-C-PA-35 small-signal amplifier can achieve high gain amplification for input signals of different wavelengths in the C-band (multiple wavelengths are not simultaneously input to the EDFA in the figure), and the input power of a single wavelength is -35dBm, the effective gain is greater than 35dB, and the amplified signal-to-background noise ratio is greater than 30dB.