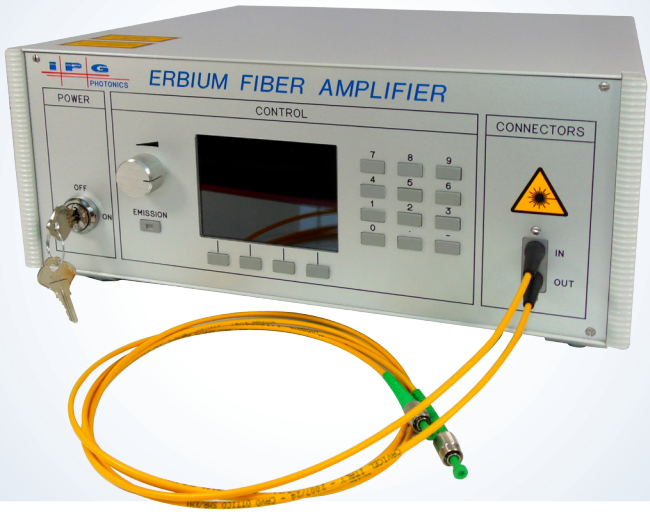
EAD Series

Desktop Single-channel Erbium Fiber Amplifiers



Applications

- Fiber Optic Communications
- Power Booster for Tunable Sources
- Photonics Switching
- Components Testing
- Laboratory Use

Features

- 0.5-5 W Output Power
- Low Noise Figure
- Low PMD
- APC, AGC and ACC Controls
- 1530-1570 nm or 1575-1610 nm Operation Bandwidth

IPG Photonics' EAD Series single-channel C-band (1535-1570 nm) and L-band (1575-1605 nm) Erbium-doped Fiber Amplifiers are conveniently packaged for use in a laboratory environment. Everything is contained in one desktop instrument including the EDFA with your choice from 1-5 W saturated power output. The front panel includes a monitor display, a keyed on/off switch, power control and fiber input/outputs; RS232 and GPIB interface controls are located on the rear panel. These universal devices operate in the temperature range of 0-50°C and require 100/110/200/220V AC (50/60 Hz). IPG's EAD Series can be employed for research and development in fields such as telecommunications, photonics switching, sensorics and product test beds.

Standard EAD-C Erbium Fiber Amplifiers provide amplification of an optical input signal in the 1535-1570 nm region and the EAD-L Amplifiers in the 1575-1605 nm region with bandwidth of 35 nm (FWHM). Typical amplifier input and output are provided by a 1.5 meter, standard SMF-28 optical fiber cable with input/output connectors. Typically, an amplifier has 40 dB input and 30 dB output optical isolation. The EAD Series also offers a linear polarization option with an extinction ratio of >17 dB.

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Optical Characteristics

	EAD-0.5-C(L)	EAD-1-C(L)	EAD-2-C(L)	EAD-5-C(L)
Mode of Operation[1]	Single-channel			
Polarization[2]	Random			
Output Power, W	0.5	1	2	5
Optical Bandwidth, nm				
C-band		1535-1567		1540-1570
L-band		1570-1605		1570-1605
Optical Input Power, dBm	-3 to +3		0 to +3	
Typ. Noise Figure, nm				
C-band		5.5		6.0
L-band		6.0		6.5
Output Power Stability (over 8 hours, APC mode), dB	0.1-0.02			
Polarization Depend and Loss (PDL), dB	0.3			
Polarization Mode Dispersion (PMD), ps	0.7			
Input/ Output Optical Isolation, dB		40/30		40/25

[1] WDW (gain flattened) amplifiers available on request
[2] Linear polarization available on request
[3] Higher output powers available on request
[4] 1530-1565 & 1575-1610 nm bandwidths available on request
[5] Amplifiers optimized for lower input power available on request

General Characteristics

	Min.	Max.
AC Power Line, V	100	
Chassis Dimensions, mm	341 x 132 x 305	
Operational Temperature Range, °C	0 to +50	
Storage Temperature Range, °C	-30 to +70	
Humidity, %	5	90
Warm-up Time, min		1
Cooling	Forced Air/ Heat Sink	
Input/ Output Termination	1.5m SMF-28 Fiber with FC/APC Connectors	

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