

Single Channel 1U Rack Mount Er Doped Amplifier EDFAU

Model #: EDFAU

Description: This 1U rack mount single channel EDFAU's key components are the highly stable pump lasers. A unique APC (Automatic Power Control), AGC (Auto Gain Control) and ATC (Automatic Temperature Control) circuit ensures the high stability and reliability of output power or gain. The employed high precision MPU module enables the control, adjustment and monitor of the EDFA.

The EDFA is designed for digital optical fiber communication system featuring: (1) lower noise figure; (2) high output booster and high sensitivity pre-amplifier enhancing the system loss budget, (3) Broad input power and output power dynamic range.

The design of dual power driver offered it a longer MTBF and one power driver can serve as a backup should the other one failed.

Employing a smart temperature control system, the fan is on when the module temperature is above 45°C and it will stop as the temperature is below 40°C. Thus it ensures the thermal stability and extends fan's life span. Professional air duct design ensures superior temperature stability.

It also features an intelligent monitoring and management system. It is equipped with a perfect network management interface: RS232 RS485 and Ethernet, and the open MIB (Management Information Base) which enables the connectivity with all network management systems.

Application: SDH, ATM long distance transmission; Video optical transmission system; Optical distribution system; Booster; Pre-amplifier; In-line amplifier

Features:

- Low noise figure: typically 5.0 dB
- High stability and reliability: MTBF > 150000 hours
- Output power is adjustable by Network management or manually
- High Precise AGC and APC Circuit: Typical power control accuracy is ± 0.05 dB
- High Precise ATC Circuit: Typical temperature control accuracy is $< \pm 0.1$ °C
- Intelligent Temperature Control System: dedicated temperature control chip
- ASE suppression filters for pre-amplifier is optional
- OEM products available
- All performance compatible with Bellcore GR-1312-CORE
- Network management interface: Ethernet, RS-485, RS-232 interface
- Support Telnet and standard SNMP Network management
- 1U 19" rack mount structure
- High-performance dual-pluggable power supply: 110V/220V mixed with -48V

Specification List

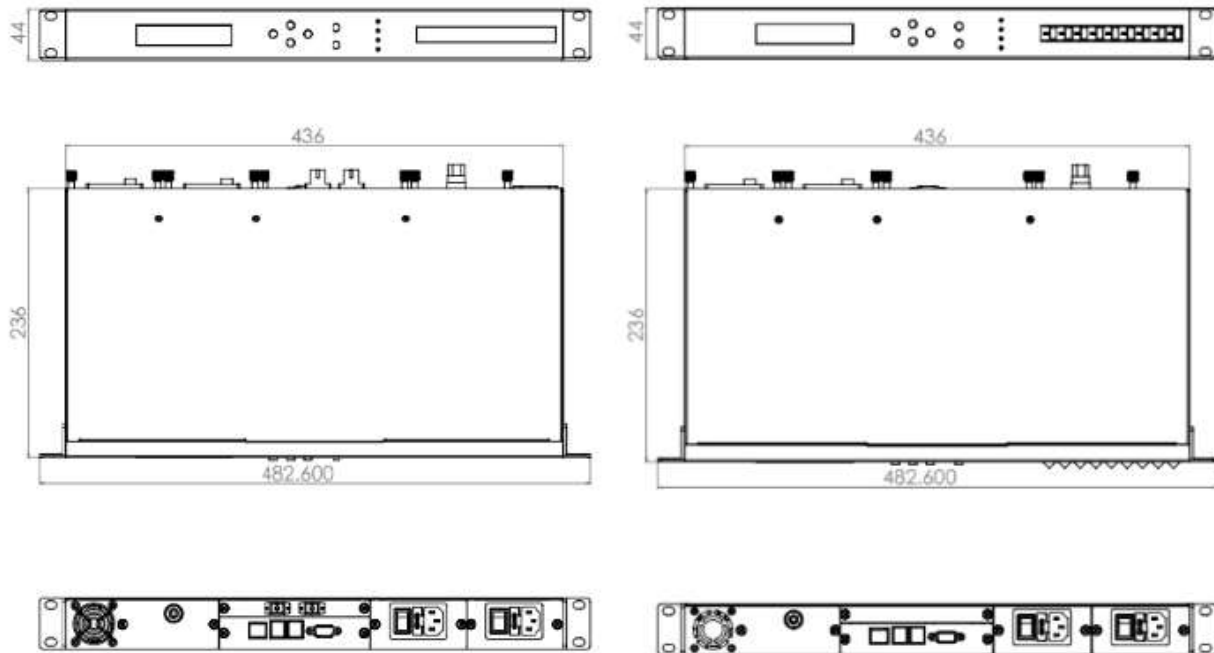
Parameter	Unit	Min.	Typ.	Max.
Optical Specification				
Operating Wavelength	nm	1530	1550	1565
Saturation Output Power ⁽¹⁾	dBm	--	--	23
Input Signal Level	Booster	-10	--	+6
	In-line	-25		-10
	Pre-amplifier	-35	--	-25
Gain	dB	--	20	33
Noise Figure ⁽²⁾	dB	--	5.0	--
Isolation (Input / Output Port)	dB	30	--	--
Optical Power Stability	dB	--	+/- 0.05	+/- 0.1
Return Loss	%	45	--	--

Polarization Dependence Gain	dB	--	--	0.3
PMD	dB	--	--	0.5
Electrical Specification				
Power Voltage ⁽³⁾	VAC	85 ~ 132 or 170 ~ 264		
Power Consumption ⁽⁴⁾	W	18		
Environmental Specification				
Operating Temperature	°C	-5 to +60		
Storage Temperature	°C	-40 to + 80		
Humidity ⁽⁵⁾	%	10 ~ 85		
Mechanical Dimension (1U)	mm	483 (W) x 236 (D) x 44 (H)		
Communication Interface				
LCD Display	-	Output power, pump current		
Control	-	Output power, switch key		
Computer Interface	-	RS232, RS485, Ethernet port		

- (1) Customization available
- (2) Noise figure 5.0dB tested when input power is 0 dBm for booster, -15 dBm in-line amplifier; NF 4.5dB tested when input -30dBm for pre-amplifier
- (3) 110, 220VAC or -48VDC selectable with request in advance
- (4) Actual power consumption depends on the output power and environment temperature
- (5) No condensation

Mechanical structure

1U Structure (Unit: mm) : 483*236*44



Ordering Information: EDFAU-A-BBB-C-D-E

A: Amplifier Type ⁽¹⁾	BBB: Output power ⁽²⁾	C: Electric Power	D – Connector	E: Net Management
1 - Pre	020 - -20dBm	1 - 110VAC	1 – SC/UPC	0 - None
2 – In line	010 - -10 dBm	2 – 220VAC	2 – SC/APC	1 - SNMP
3 - Booster	3 – 110 ~ 220VAC	3 – FC/UPC	
	116 - +16 dBm	4 - -48VDC	4 – FC/APC	
	123 - +23 dBm	0 - None	5 – LC/UPC	
			6 – LC/APC	

(1) Definition

1. Pre-amplifier: Input power -35 ~ -25 dBm
2. Inline-amplifier: Input power -25 ~ -10 dBm
3. Booster: Input power -10 ~ +6 dBm

(2) Output power 3 figures, the first number stands for symbol: “0” means negative, “1” means positive

Laser Safety Information:

IIIb laser product

Single-mode fiber pigtail with connector

Wavelength: 0.96~1.68μm

The max power: <400mW

Don't carry Products under the state of charged

Caution: any control, adjust, treatment may cause dangerous laser radiation besides above notice

