

FTTP Fiber Optical Amplifier (Integrated with WDM)

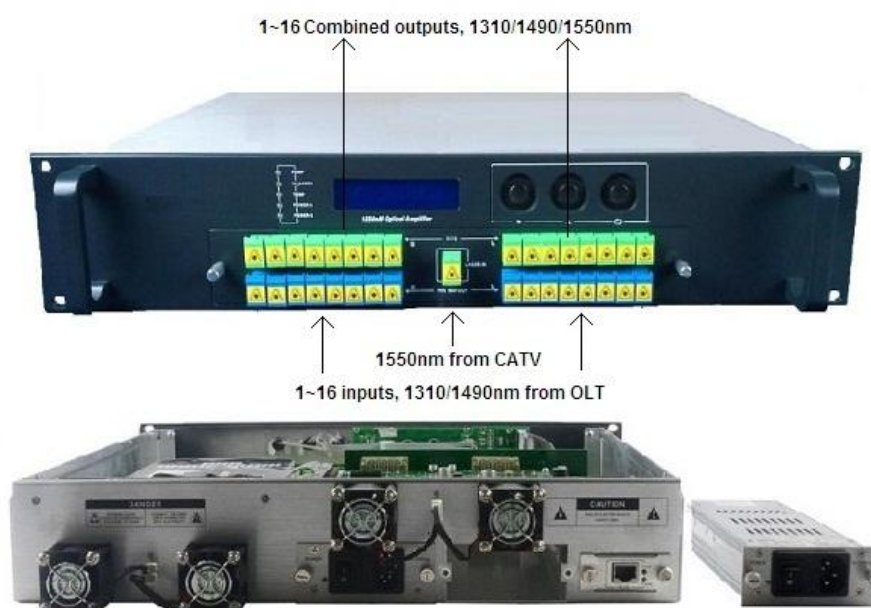
Introduction

EDFA-1550W series high power single mode EDFA is characterized with low noise, high linearity. Build-in well-performed CWDM integrated 1490nm /1310nm data stream from the OLT and ONU into single fiber transmission through EDFA, reducing component count and improve system performance and reliability. It offers a flexible, low-cost solution for CATV large area coverage of metropolises and medium-sized cities. EDFA-1550W series is equipped with completed APC, AGC, ATC control, excellent design for heat-dispersion which guarantees long time working and stable operation of the PUMP laser. RJ45 on the back panel offers SNMP network interface. The wide LCD displays all the parameters of the whole unit and alarming. The laser will be automatically switched off if optical power is missing; it offers security protection for the laser. All of the optical outputs are located on the front panel (can be on back panel is customer specify).

EDFA-1550W series adopts single mode pump, EDF and multi-pumps integration technique. Optimized for low noise, allow for clear transmission of video, voice and data signals. Its noise figure and reliability is much better than Double-clad Yb/Er Amplifiers.

EDFA-1550WA: 1U chassis, total output power >1000mW, 8 uplink optical ports, for OLT+8 1550nm output optical port, multiply 1310/1490 data stream.

EDFA-1550WB: 2U chassis, total output power >4000mW, max. 32 uplink optical ports, for OLT+32 1550nm output optical port, multiply 1310/1490 data stream.



Features

- 1) Low noise, high performance.
- 2) Total output power: 400~4000mW.
- 3) 8~32 uplink optical ports, for OLT
- 4) 8~32 1550nm output optical port, multiply 1310/1490 data stream
- 5) Completed with RJ45 for SNMP.

Technical Specification

Performance		Index			Supplement
		Min.	Typ.	Max.	
CATV Operation wavelength	(nm)	1540		1560	
OLT pass wavelength	(nm)		1310/1490		
1550nm pass wavelength loss	(dB)			0.8	1550nm
1310/1490nm pas W/L loss	(dB)			0.8	1310/1490nm
Wavelength isolation between 1490/1550nm	(dB)	40			
CATV input power	(dBm)	0	3		
Total output power	(dBm)	27		37	
Each port output power	(dBm)	10		22	
Number of output port		8		32	
Difference of each output power	(dB)	-0.5		0.5	
Noise figure	(dB)	4.5		6.5	
System CNR deterioration	(dB)			1	Pin=6dBm
Polarization dependence gain	(dB)			0.4	
Polarization mode dispersion	(ps/nm)			0.3	
Pump power leakage	(dBm)			-30	
Echo loss	(dB)	50			
Optical Connectors		SC/APC, LC/APC			
SNMP interface		RJ45			
Power supply (220VAC)	(V)	100		250	Optional -48VDC
Power consume	(W)	50		170	
Work temp.	(°C)	-10		65	
Storage temp.	(°C)	-40		80	
Relative humidity	(%)	5		95	
Size (W) × (D) × (H)	(")	19 × 14.5 × 1.75			1U: EDFA-1550WA
		19 × 14.5 × 3.5			2U: EDFA-1550WB

Product series

Model	Total output power	No. of out ports	Output power/port	Connector
EDFA-1550W-26A-08	≥26dBm(400 mw)	8	≥15.0dBm	SC/APC, LC/APC
EDFA-1550W-27A-08	≥27dBm(500 mw)	8	≥16.0dBm	SC/APC, LC/APC
EDFA-1550W-28A-08	≥28dBm(630 mw)	8	≥17.0dBm	SC/APC, LC/APC
EDFA-1550W-29A-08	≥29dBm(800 mw)	8	≥18.0dBm	SC/APC, LC/APC
EDFA-1550W-30B-08	≥30dBm(1000 mw)	8	≥19.0dBm	SC/APC, LC/APC
EDFA-1550W-30B-16		16	≥15.5dBm	SC/APC, LC/APC
EDFA-1550W-31B-08	≥31dBm(1260 mW)	8	≥20.0dBm	SC/APC, LC/APC
EDFA-1550W-31B-16		16	≥16.5dBm	SC/APC, LC/APC
EDFA-1550W-31B-32		32	≥13.0dBm	LC/APC
EDFA-1550W-32B-08	≥32dBm(1580 mW)	8	≥21.0dBm	SC/APC, LC/APC
EDFA-1550W-32B-16		16	≥17.5dBm	SC/APC, LC/APC
EDFA-1550W-32B-32		32	≥14.0dBm	LC/APC
EDFA-1550W-33B-08	≥33dBm(2000 mW)	8	≥22.0dBm	SC/APC, LC/APC
EDFA-1550W-33B-16		16	≥18.5dBm	SC/APC, LC/APC
EDFA-1550W-33B-32		32	≥15.0dBm	LC/APC
EDFA-1550W-34B-16	≥34dBm(2510 mW)	16	≥19.5dBm	SC/APC, LC/APC
EDFA-1550W-34B-32		32	≥16.5dBm	LC/APC
EDFA-1550W-35B-16	≥35dBm(3160 mW)	16	≥20.5dBm	SC/APC, LC/APC
EDFA-1550W-35B-32		32	≥17.0dBm	LC/APC
EDFA-1550W-36B-16	≥36dBm(4000 mW)	16	≥21.5dBm	SC/APC, LC/APC
EDFA-1550W-36B-32		32	≥18.0dBm	LC/APC

EDFA-1550W-37B-16	≥37dBm(5000 mW)	16	≥22.5dBm	SC/APC, LC/APC
EDFA-1550W-37B-32		32	≥19.0dBm	LC/APC

Remark:

1. All units with different output power of EDFA-1550W series can be in 2RU casing.
2. Please contact for detailed datasheet if special output power and output ports configuration is required.

Block Diagram

