

CATV EDFA 1550nm Optical Amplifier

This optical amplifier is applicable to GPON and EPON and compatible with any FTTx PON technology. Each output port has a built-in CWDM.



Overview

High-Performance 1550nm Optical Amplification

This 1550nm Optical Amplifier is a low-noise, high-power solution designed for FTTP and CATV applications. It is fully compatible with GPON, EPON, and any FTTx PON technology, making it a cost-effective choice for triple-play network integration. Built with world-class pump lasers and advanced APC, ACC, and ATC control, it ensures long-term stability and exceptional heat dissipation for reliable 24/7 operation.

Key Features

Core Features

- Built-in CWDM (1310nm/1490nm/1550nm) for each output port
- Compatible with FTTx PON Technology
- World-class pump laser for high stability
- Advanced APC, ACC, and ATC control systems
- SNMP remote management via RJ45
- Local management via RS232 interface
- Optional dual optical input with 2x1 switch
- Optional RF detection function

Optical Performance

Optical Metrics

1550 nm

Operating Wavelength

45 dB

Optical Return Loss

6 dB

Noise Ratio

Technical Specifications

Item	Unit	Parameters	Remarks
Output Power	dBm	27~41	
Output Power	mW	1260~13000	
Input Power	dBm	-8~10	
Wavelength	nm	1540~1563	
Output Power Stability	dB	<±0.2	
Bias Oscillation Sensitivity	dB	<0.2	
Bias Oscillation Dispersion	PS	<0.5	
Optical Return Loss	dB	≥45	
Fiber Connector		FC/APC, SC/APC	Or LC/APC
Noise Ratio	dB	<6.0(0dBm optical input)	0dbm@1550nm
Network management port		RJ45 RS232	SNMP
Power Loss	W	50~100	Single PS working
Working Voltage	V	220VAC(90~265)	Or -48Vdc
Working Temp	°C	-5~55	
Storage Temp	°C	-20~85	
Size	mm	483(W)×280(D)×88(H)	2RU

Detailed technical parameters including output power, wavelength stability, and environmental tolerances.

Technical Data

Parameter	Value	Unit
Output Power	27 ~ 41	dBm
Input Power	-8 ~ 10	dBm
Wavelength Range	1540 ~ 1563	nm
Output Power Stability	<±0.2	dB
Power Loss	50 ~ 100	W

Physical & Environmental

Rack Unit

2RU

Dimensions

483(W) x 280(D) x 88(H) mm

Working Temperature

55 °C

Connectivity

Fiber Connectors

FC/APC, SC/APC, LC/APC

Management Interfaces

RJ45, RS232, SNMP

Power Supply

Working Voltage

- 220VAC (90~265V)
- -48Vdc

Quality & Service

Certifications

CE

Defective Rate

< 0.2%