

Optical Amplifiers

Integrated EDFA with Optical Switch 21dBm output

EDFA-OS-221-SC

■ Product Description

The EDFA-OS-221-SC is ideally suitable for FTTx applications with high output power and low noise figure. This EDFA is integrated with OLP and splitter, all housed to fit one 19-inch cabinet rack with 1U height. The rack has two input ports (one as primary route and one as secondary), and 2 output ports of 21dBm each. This unit is designed for easy maintenance.



■ Features

- ▶ High optical output power and gain
- ▶ Wide wavelength range
- ▶ Customized monitor interface
- ▶ Low noise figure and low power consumption
- ▶ LCD display showing important information
- ▶ Web-based network management system (TCP/IP), real time monitoring and alarm
- ▶ Telcordia GR 1312 compliant and CE qualified
- ▶ Robust, suitable for outdoor application
- ▶ Excellent gain and output power stability over environmental temperature of -10 ~ 55°C
- ▶ All components used in the EDFA are of top quality
- ▶ Soft keys on front panel

■ Applications

- ▶ Power booster for FTTx and Hybrid Coax (HFC) Networks
- ▶ Optical fiber distribution networks
- ▶ Long distance FTTx systems

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Product Specifications

Parameter	Unit	Minimum	Typical	Maximum
Wavelength range	nm	1530		1565
OLP				
Insertion loss R1 (R2) → Rx	dB			1.5
Return loss	dB	50		
Crosstalk	dB	55		
Polarization dependent loss	dB			0.1
Wavelength dependent loss	dB			0.1
Monitor optical power range	dBm	-40		10
Monitor optical power accuracy	dB		± 0.5	
Switching time	ms			10
Switch type		Latching		
Lifetime		1,000,000 cycles		
EDFA+Splitter				
Work mode		APC		
Input optical power ¹⁾	dBm	-10		10
Output optical power	dBm		21x2	
Noise figure*	dB		4.7(0dBm@ 1550nm)	5.2(0dBm@ 1550nm)
Return loss at input & output	dB	50/50	55/55	
Pump leakage at Input & output	dBm			-10/-10
Polarization dependent gain	dB		0.2	0.4
Uniformity ²⁾	dB			0.2
Environment and Interface				
Number of optical ports		4 (2 input and 2 output ports)		
Fiber Type		SMF		
Optical connector		SC/APC		
Operation temperature	°C	-10		55
Storage temperature	°C	-40		75
Power consumption	W			35
Input Voltage (and Line Frequency)	VAC (Hz)		110/220 (50/60)	

1) Refers to internal EDFA only, not include the insertion loss of OLP; 2) Power of highest port to lowest port

Physical

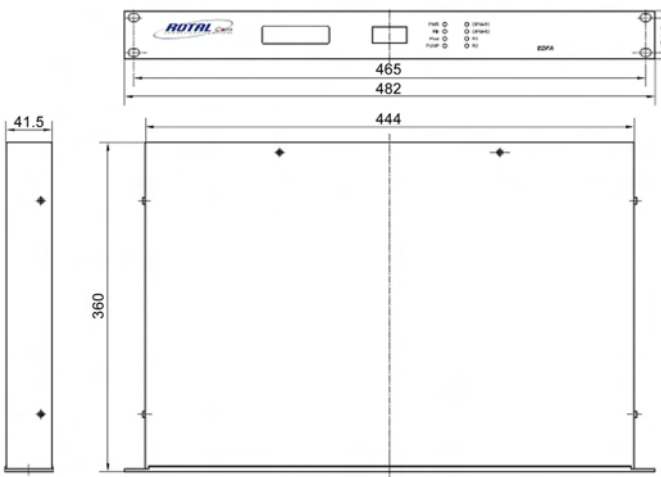


Fig 1: Mechanical Diagram

1. The 4 optical connectors fixed on the rear panel are vertical to the rear panel.
2. RS232 and Ethernet port is provided for monitor and control.
3. All dimensions are in mm

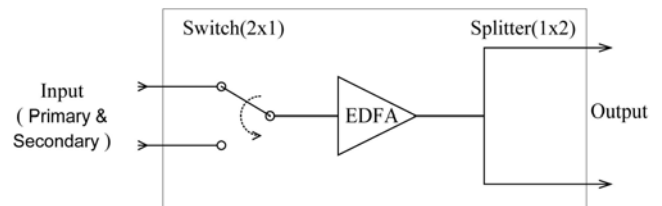


Fig 2: Block diagram of EDFA integrated with OLP and Splitter

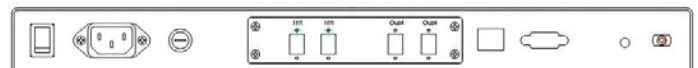


Fig 3: Rear Panel