



Optical Protection Switch

Ascentac OPS3000

Automatic High Speed Switching for Shortening Communication Interrupt Time & Increasing Network Reliability

| Feature

- Real-time monitoring for primary and secondary optical lines
- Fast switching
- Automatic, manual or remote switching mode
- Programmable alarm and switching threshold
- Wide power range

| Application

- Optical fiber network with EDFA
- DWDM system
- Optical line protector for IP CAM

| Introduction

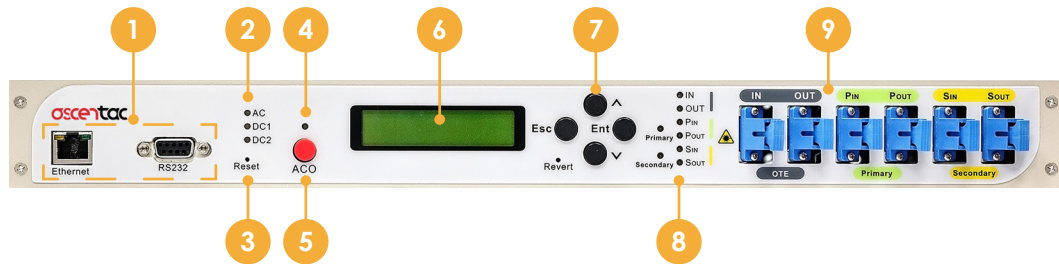
Ascentac OPS3000 Series is a standard 1U optical protection switch, providing 1:1 spare fiber monitoring. It can protect against fiber cuts or network failure by switching to alternate line to maintain optical signal transmission when main line breaks down at any time. Its real-time monitoring and fast switching between primary and secondary optical lines reduces network breakdown and maintenance time.

Description

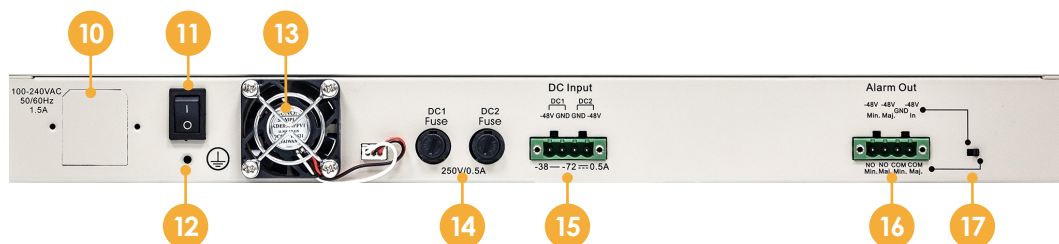
Ascentac OPS3000 Series supports SNMP network management or web interface for local operation. The parameters also can be set by the buttons on the front panel. The 1U-high chassis design is convenient for mounting in a standard-sized, 19"-wide rack.

Ascentac OPS3000 Series is easy to be installed and operated. It can apply in CATV and telecommunication industry.

Appearance



- 1 Ethernet RJ45 and RS232 interface
- 2 Indicator for power status
- 3 Reset key
- 4 Key for stopping buzzer alarm
- 5 Alarm indicator
- 6 Easy-to-read LCD display
- 7 Intuitive keys for easy use and direct control
- 8 Indicator for light path
- 9 Optical connector interface



- 10 AC receptacle
- 11 AC/DC power switch
- 12 Ground point
- 13 Removable fan
- 14 Fuse holder
- 15 DC power input
- 16 External alarm output terminal
- 17 Switch for dry or wet contact of external alarm

| Standalone or Module Design with High Flexibility

1. Standalone

Width x Height x Depth : 483 x 44.4 x 240 mm

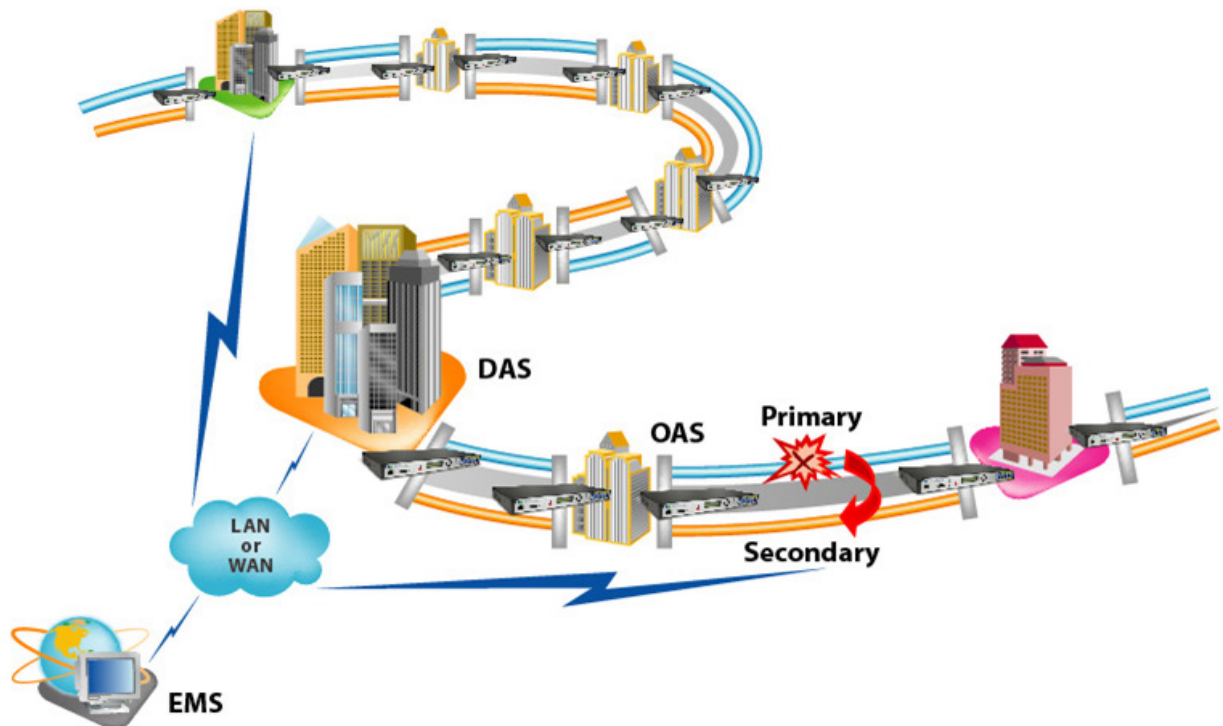


2. Module

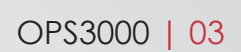
Width x Height x Depth : 50 x 216.5 x 190 mm

| When to use OPS3000

1. Long haul network protection



The diagram illustrates a multi-tier network architecture. At the top, the **Backbone Network** is represented by a series of interconnected nodes. Below it, the **Metro Network** consists of two central nodes labeled **CO** (Central Office) and a third node in the center. The **Access Network** is the bottom layer, showing various end-user services connected to the Metro Network. These services include **FTTCab** (Fiber to the Cabinet) connected to houses, **FTTB** (Fiber to the Building) connected to a building, **Video Conference**, **PC**, **IP phone**, **FTTP** (Fiber to the Premises) connected to a server rack, and an **Internet Cafe** with multiple computer terminals. Red arrows indicate the flow of data from the end-user services through the Access and Metro networks towards the Backbone Network. Black starburst symbols are placed at the connection points between the Access and Metro networks, likely representing points of failure or congestion.



Specification

OPS	
Operating Wavelength (nm)	1310 or 1550
Fiber Type	IN / P _{OUT} / S _{OUT} : -30 to 25 OUT / P _{IN} / S _{IN} : -40 to 10
Resolution (dB)	0.1
Insertion Loss (dB)	IN to P _{OUT} / S _{OUT} : 1.5 P _{IN} / S _{IN} to OUT : 1.5
Auto Redundancy Speed (ms)	Cascade: 40 Non-cascade: 30
Return Loss (dB)	45
Polarization Dependent Loss (PDL) (dB)	0.1
Life-time (times)	10 ⁶
Repeatability (dB)	± 0.1
Crosstalk (dB)	60
Accuracy (dB)	0.5
Transmit Distance (km)	1310nm : 80 ; 1550nm : 120
Switch Mode	Auto / Auto & Revert / Manual / Force
Switch Delay (sec)	0 to 120
Switch Latch	Power On / Off
Alarm Hysteresis	Optical Power / Temperature
Cascade	Avoid other OPS switching mistakenly
Power Supply Voltage	-44 to -56VDC & 100 to 240VAC
Power Consumption (Watt)	< 10
External Alarm	Dry and Wet contacts (-48VDC output)
Ethernet Speed	10 / 100M
Operating Temperature (° C)	-5 to 65
Storage Temperature (° C)	-20 to 70
Humidity (%)	5 to 85 (Non-Condensing)
Optical Status indicated	IN: From transmitter output POUT: To primary path input SOUT: To secondary path input OUT: To receiver input PIN: Received primary path output SIN: Received secondary path output

Ordering Information

OPS 05-0300X

Wavelength 

1 : 1310nm

2 : 1550nm

Note : 1. 1:1 spare fiber monitoring
2. Power supply: AC + DC
3. Connector: SC/PC

Example : OPS 05-03001



© Copyright 2026 Ascentac. All rights reserved. The information in this document is subject to change without notice.

For the latest information regarding this product, please visit our website at <http://www.ascentac.com>



Contact us