

# OBPS-4x4

## Optical Bypass Protection System



- Low insertion loss
- Non-latching type
- LED indicators for power and optical switch status

### MARKET SEGMENTS AND APPLICATIONS

OBPS is an Optical Bypass Protection Switching system applied to the field of optical fiber communication and capable of automatically bypassing faulty network nodes in case of power outage. It automatically identifies the power supply status at the network node, and performs optical path bypass when the node fails, thereby avoiding network break caused by the node failure.

OBPS-4x4 provides excellent performance on dual or single fiber optical network. It is suitable for use in Ring or Linear fiber network infrastructure.

### CONFIGURATION

Figure 1 shows port configuration. Figure 2 shows optical bypass routes in “normal” and “bypass” states.

- To connect to the network:
  - Connect Network Tx1, Rx1 to the appropriate neighboring switch, server or router device.
  - Connect Network Tx2, Rx2 to the appropriate neighboring switch, server or router device.
- To connect the local inline device:
  - Connect In-line A0, B0 to the local inline appliance using a LC/PC patch cord.
  - Connect In-line A1, B1 to the local inline appliance using a LC/PC patch cord.
  - Make sure you connect the switch power supply to the same power source that the local inline appliance is using.

### Specifications

#### INTERFACES\*

Wavelength range	1260 to 1650 nm
Operating Wavelength	1310/1550 nm
Insertion Loss	≤1.5 dB (typical :1.0 dB)
PDL	≤0.05 dB
WDL	≤0.25 dB
TDL	≤0.25 dB
Repeatability	≤±0.02 dB
Transmission Power	≤500 mW
Lifetime	≥10 <sup>7</sup>
Switch time	<8 ms
Cross talk	≥55 dB
Return loss	≥50dB
Fiber Type	9/125μm
Connector	LC

\*Optical parameters do not include connectors

#### DIAGNOSTICS

LED indicators	
PWR1	Lights in green when PWR1 supply is active
PWR2	Lights in green when PWR2 supply is active
Active	OBPS is in “normal” (no Bypass) operation



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## Optical Bypass Protection System

### GENERAL

#### Environment

Operating Temperature	-5 to 70 °C
Storage Temperature	-5 to +85°C
Operating Humidity	5 to 85 %RH
Storage Humidity	5 to 85 %RH

#### Physical

Dimensions (mm)	(L)140.0×(W)95.0×(H)26.0
Weight	(excluding optical connectors): 510g

#### Power

Power Supply Options	ADC: <ul style="list-style-type: none"> <li>• DC: 12-48V</li> <li>• AC:100-240V</li> </ul> DC2: Dual DC 12-48V
Power Consumption	<2.5W

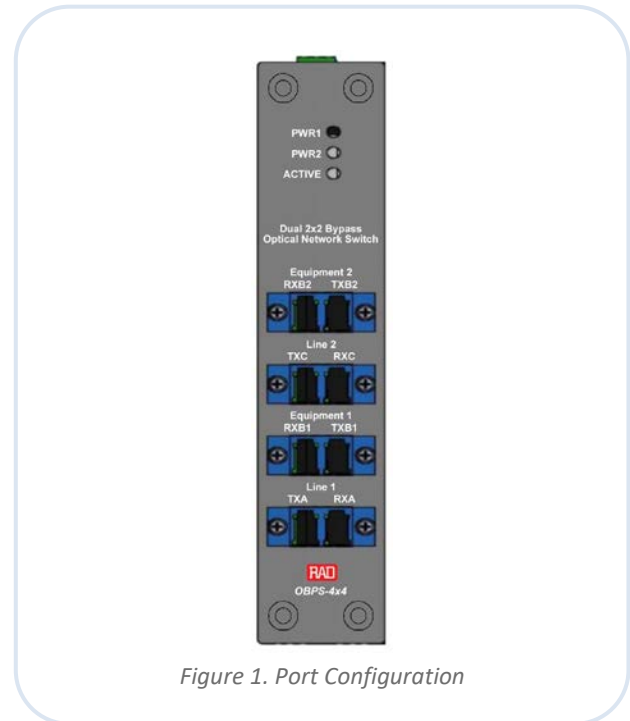


Figure 1. Port Configuration

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## Optical Bypass Protection System

### Ordering

#### OBPS-4x4/ADC

Optical bypass protection system with AC or DC power input, includes US AC cable

#### OBPS-4x4/DC2

Optical bypass protection system with dual DC power input

#### OBPS-4X4/ADC/Y2C5

Optical bypass switch with AC and DC power input, includes AC power Y cable, 2 x C5 and one B-type connectors, 1.5m

#### OBPS-4X4/ADC/YC5C13

Optical bypass switch with AC and DC power input, includes AC power Y cable, 1 x C5, 1 x C13 and one B-type connectors, 1.5m

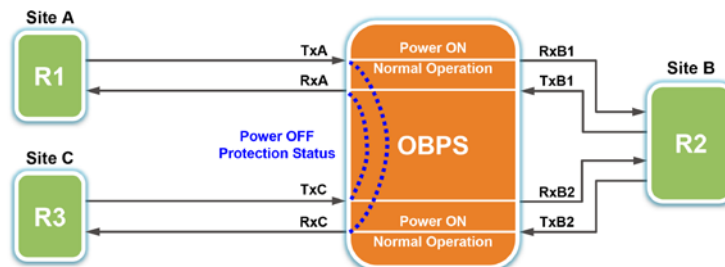


Figure 2. Optical Route

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