



Optical Bypass Switch with Heartbeat™

Net Optics Optical Bypass Switches with Heartbeat provide a permanent and trouble-free access port for in-line network security and monitoring devices. With a heartbeat, the Optical Bypass Switch protects network traffic against both signal and power loss on the attached in-line device.

The Optical Bypass Switch with Heartbeat monitors the link to the attached device by sending a heartbeat packet to the device. If the Optical Bypass Switch does not receive the heartbeat back, it automatically switches network traffic to bypass the unresponsive device — even if the device is still receiving power. With a heartbeat, the Optical Bypass Switch protects network traffic against both signal and power loss on the attached in-line device.

While the Optical Bypass Switch is receiving power, it diverts network traffic to attached in-line devices. In this state, all in-line traffic is routed directly to the device connected to the Optical Bypass Switch.

When the Optical Bypass Switch loses power, in-line traffic continues to flow through the network link, but is no longer routed through the device. This allows the network devices to be removed and replaced without network downtime. Once power is restored to the Optical Bypass Switch, network traffic is seamlessly diverted to the in-line device, allowing it to resume its critical functions.

Passive, Secure Technology

- Fail-open monitoring with any GigaBit fiber in-line appliance at speeds up to 1000 Mbps
- Protects against power, link, and application failure
- Increased reliability on critical network links
- High-speed optical switching with minimal insertion loss
- Configurable timeout (heartbeat) and retry

Ease of Use

- LED indicators show power, speed, link, and activity status
- Front-mounted connectors support easy installation and operation
- Silk-screened application diagram illustrates all connections for easy deployment
- Optional 19-inch rack frames holds two Bypass Switches
- Tested and compatible with all major manufacturers' monitoring devices, including protocol analyzers, probes, and intrusion detection/prevention systems



Technical Specifications:

Operating:

Operating Temperature: 0°C to 40°C

Storage Temperature: -10°C to 70°C

Relative Humidity: 10% min, 95% max, non-condensing

Mechanical:

Power Supply:

Input: 100-240V, 0.5A, 47-63Hz

Output: 12V 1.5A

Dimensions: 1.125" high x 11.5" deep x 6.5" wide

Splitter:

Fiber Type:

Multimode: Corning 62.5/125µm, 850nm wavelength

Insertion Loss: Network Port: 1.25 dB, Monitoring Port: 1.25 dB

Singlemode: Corning 8.5/125µm, 1310nm wavelength

Insertion Loss: Network Port: 1.25 dB, Monitoring Port: 1.25 dB

Connectors:

Monitoring Ports: (2) Duplex LC connectors

Network Ports: (2) Duplex LC connectors

Cable Interface:

BPO-HBSX-LC, BPO-HB-LX/SX, BPO-HBLX-LC

models: (4) LC-LC cables, 3 meter

Certifications:

Fully RoHS compliant

Part Number	Description
BPO-HBSX-LC	Optical Bypass Switch, GigaBit SX
BPO-HBLX-LC	Optical Bypass Switch, GigaBit LX
BPO-HB-LX/SX*	Optical Bypass Switch, GigaBit LX to SX
RK-2V2	Two-Slot Rack-mount Frame

*BPO-HB-LX/SX converts LX network traffic for SX In-line devices. All products include a 1 year manufacturer's warranty. An additional 1 or 2 year extended warranty may also be purchased.