

# Net Optics Intelligent Products

## iBypass Switch



# intelligent bypass switch

### iBypass Switch

- Secure monitoring with any in-line appliance
- Protect against downtime due to power, link, and application failure
- Maintain link integrity during IPS redeployments and upgrades

### Information

- Graphical representation of link status and monitor port connections
- LEDs show power, speed, link and activity status

### Security and Control

- Disable remote interfaces from a password-protected command line interface
- Control all iBypass Switches in your enterprise with easy-to-use GUIs

### Access

- Web Manager offers complete user interface on one page
- System Manager gives control and access to multiple iBypass Switches
- Compatible with third-party SNMP management tools

### Ease of Use

- Redundant power ensures monitoring uptime
- Tested and compatible with all major manufacturers' intrusion detection and prevention systems

Net Optics 10/100/1000BaseT iBypass Switch with Heartbeat technology protects against power, link, and application loss. The iBypass Switch features remote interfaces that allow remote switching and provide access to baseline traffic statistics, including utilization levels from anywhere in the network.



### Heartbeat Technology

The configurable heartbeat feature verifies that traffic is moving through the attached IPS appliance by sending packets through the appliance. If you disconnect the appliance, heartbeat packets do not return from it and the switch automatically enters Bypass Enabled Mode. Now the switch maintains power but sends network traffic flows around the appliance until it detects another heartbeat from the appliance.

### Seeing is Believing

The display and alarm LEDs provide a quick visual check that the utilization levels are not exceeding the capacity of the monitoring device or a pre-determined threshold. From the display, you can view the current bandwidth utilization of each side of a full-duplex link with the size and time of the highest peak. A quick check of the display lets you know if there was an event that requires further investigation. After taking action on a utilization or peak event, you can reset the data from a recessed reset button on the front panel or from a remote interface. The iBypass Switch is ready to

detect and display the next critical event.

### Remote Control

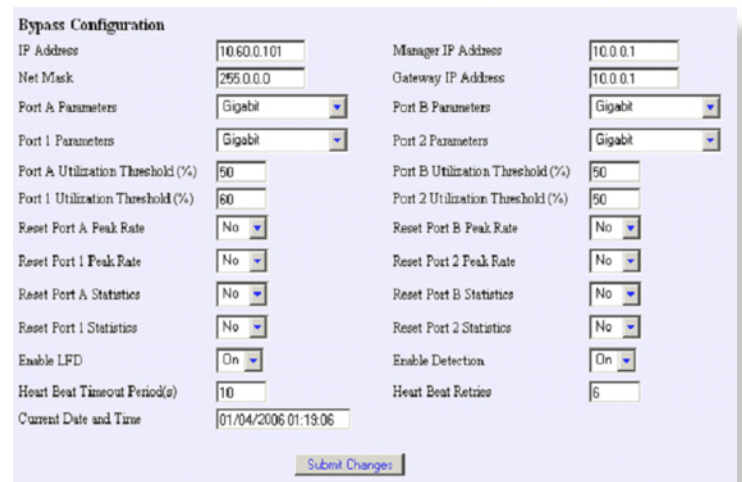
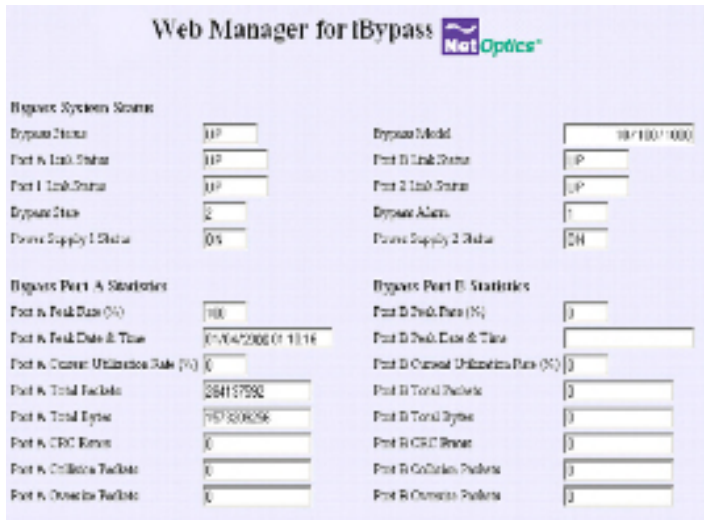
The iBypass Switch Web Manager and System Manager allow you to remotely set parameters, view status information, and monitor traffic statistical data. These interfaces provide security and performance information such as the number of over- and under-sized packets, packet collisions, and CRC errors. You can remotely set the alarm thresholds, clear the traffic data counters, and turn on or off a Monitor Port. This access is also available via an optional wireless link from your wireless PDA or laptop.



The Web Manager is a browser-based interface accessible from any PC with a browser and access to the iBypass Switch's IP address. System Manager is an SNMP-based management interface. Once you have configured the iBypass Switch and set the desired connections, you can disable the remote interfaces from the RS232 command line interface (CLI).

### Web Manager

Net Optics Web Manager allows you to change settings, view status, and change port connections with simple-to-use controls. When you access an iBypass Switch with Web Manager, all configuration, status, and port connection information is displayed on a single page. Changes to the configuration can be made with a few clicks of the mouse.



Access and control the iBypass Switch using a web browser

## System Manager

Net Optics System Manager is an SNMP management tool that offers central management of all Net Optics iBypass Switches in the network. iBypass Switches can be organized into groups according to workgroup, location, or any other criteria. As with Web Manager, you can view status information and change configuration options. iBypass Switches can be fully accessed with third-party SNMP management tools after loading Net Optics' Management Information Base (MIB) file.

**SNMP**

## Uninterrupted Traffic

The iBypass Switch supports fail-open monitoring with any in-line device when it shares the same power source as the in-line appliance. For as long as the iBypass 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 iBypass Switch. When power is lost, Fast Path maintains network link integrity with high-speed switching.



When the iBypass 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 device to be removed and replaced without network downtime. Once power is restored to the iBypass Switch, network traffic is seamlessly diverted to the in-line device, allowing it to resume its critical functions.



GigaBit SX iBypass Switch



10/100/1000BaseT iBypass Switch

## Specifications

### Electrical

**Power Input:** 100-240VAC, 0.5A, 47-63Hz  
**Power Output:** 12V, 1.5A

### Environmental

**Operating Temperature:** 0°C to 40°C  
**Storage Temperature:** -10°C to 70°C  
**Relative Humidity:** 10% min, 95% max, non-condensing

### Optical Interface

**Fiber Cable Type:** Corning Multimode 62.5/125µm, 850nm  
**Transceiver Specifications:** GigaBit SX 850nm, VCSEL, supports 62.5/125µm  
**Insertion Loss:** < 4.5dB  
**Monitor Port Output Power:** -9.5 dBm  
**Split Ratio:** 50/50  
**Link Distance Supported:** 220 meters

### Copper Interface

**Copper Cable Type:** 22-24 AWG unshielded twisted pair cable, CAT5e  
**Link Distance Supported:** 100 meters (includes network and monitor segments)

### Connectors

#### 10/100/1000BaseT iBypass Switch

- (1) RJ45, 8-pin connector (management port)
- (2) RJ45, 8-pin connectors (monitor ports)
- (2) RJ45, 8-pin connectors (network ports)
- (2) DB9 serial control interfaces

### GigaBit SX iBypass Switch

- (1) RJ45, 8-pin connector (management port)
- (2) Duplex LC connectors (SFP monitor ports)
- (2) Duplex LC connectors (network ports)
- (2) DB9 serial control interfaces

### Indicators

- (1) 2x16 Character LCD
- (3 or 8) Link LEDs
- (2) Threshold Alarm LEDs
- (2) Power LEDs

### Software

**Command Line Interface:** Any terminal emulation software  
**iBypass Web Manager:** Any browser  
**iBypass System Manager:** Windows 98, Windows 2000, Windows XP

### Certifications

Fully RoHS compliant

### Part Numbers

**IBP-HBCU3**  
 10/100/1000BaseT iBypass Switch  
**IBPO-HBSX-SFP**  
 GigaBit Fiber SX SFP iBypass Switch  
**IBPO-HBLX-SFP**  
 GigaBit Fiber LX SFP iBypass Switch



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