

# SM-2501 & SM-2501G Ethernet Link Protector/Failover Switch

## SPECIFICATIONS:

**Standards:** IEEE 802.3u  
100BaseTX and 802.3  
10BaseT Ethernet, Fully  
RoHS Compliant

**Connectors:** Three RJ45  
Twisted Pair Jacks: One  
Primary, One Backup, One  
Direct Station  
Connection (Server Port);  
One 3.5mm Alarm  
Contact Jack; One 12V DC  
Power

**Warranty:** 1 Year Parts and  
Labor

**Approvals:** UL (on Power  
Supply), FCC Part 15 Class A  
Compliant

**Size:** 4.3"L x 2.8"W x 1.0"H

**Weight:**  
SM-2501: 4.9 oz  
SM-2501G: 5.0 oz

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## PRODUCT DESCRIPTION:

The SM-2501/SM-2501G Ethernet Link Protectors provide a programmable automatic link backup capability to "mission-critical" twisted pair Ethernet links. Protects vital connections to servers, routers, and other key Ethernet devices that require fail-safe link operation. The SM-2501 operates by nonintrusively monitoring a "primary" link and, in the event of a failure, automatically switching to the backup link. The Link Protector does not require any additional network cards in a server and does not require router-level switch-overs if a failure occurs. The backup link can be connected to either another port on a hub or an entirely different hub altogether for greater protection. The unit also functions in a back-to-back configuration for redundant wiring applications.

## FEATURES:

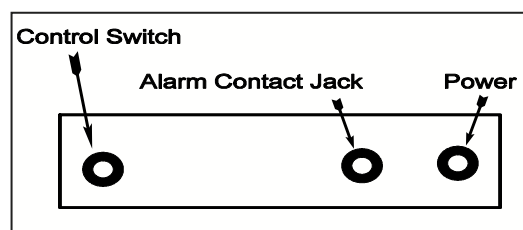
- ◆ Automatic Switching to Backup Link Occurs Within 600 to 1100 Milliseconds to Avoid Protocol-Timeouts
- ◆ Fast Switchover Option
- ◆ Power Over Ethernet Support
- ◆ Automatic Switch-Back to Primary Link on Restoration of Service
- ◆ Supports Auto negotiation for 10/100BaseT (SM-2501) and 10/100/1000BaseT (SM-2501G)
- ◆ Completely Transparent in Normal Operation - Does Not Affect IEEE Repeater Budget Calculations
- ◆ Audible Alarm and Contact Closure Output for Link Failure Notification
- ◆ Default Connection to Primary Link in Case of Power Interruption
- ◆ Outbound Generation of Link Integrity Signals to avoid False Alarms on Inactive Links
- ◆ Programmable Switchover Delays
- ◆ Manual Override for Forced Switching
- ◆ Multiple LED Indicators for Status Display
- ◆ Jumper-less System Configuration Stored in Non-Volatile Memory
- ◆ Interoperates with SM-250, SM-2500, SM-2503, and SM-2512 Series Link Protectors

## APPLICATIONS:

- ◆ Provide Backup for Critical Links to Servers, Routers, and other Vital Equipment
- ◆ Protect Against Failures of Primary Link Due to Cable Cuts, Disconnected Cables, and Hub Failures from Malfunctioning Ports, Plug-in Cards, or Power Supplies
- ◆ Add Redundant Network Wiring in conjunction with other Shore Microsystems Link Protector products.

LED
LT(Link Test) <b>Primary</b> Port
LT(Link Test) <b>Protected</b> Port
LT(Link Test) <b>Backup</b> Port
Alarm/OptA
AlarmAck/OptB
Disabled/OptC
Backup Active/Forced

### Power and Alarm Output Connections



### Network Diagram

