ED3501 Series

Industrial 10/100BASE-TX Ethernet Extender

Overview

The ED3501 Ethernet extender allows the extension of IP services beyond normal Ethernet distance limitations without changing cables, breaking the 100-meter Ethernet barrier.

The ED3501's design features high shock, vibration, and electrical noise immunity, a wide operating temperature range from -10℃ to 60℃, and ruggedized aluminum housing. The ED3501 is the ideal Ethernet extender for environments where connectivity is crucial.

Spotlight

- **UL60950 Certification**
  - ◦ Certified by UL60950-1 standard, providing protections to installers from risk of injury or damage

- **High Speed Performance**
  - ◦ Up to 100Mbps at 300 meters distance
  - ◦ Up to 20Mbps at 1200 meters distance
  - ◦ Up to 1Mbps at 2600 meters distance

- **Wide Operating Temperature**
  - ◦ -10℃ to 60℃ wide operating temperature range design is suitable for installation in outdoor cabinets

Hardware Specifications

Technology

Standards
- IEEE802.3 10BASE-T
- IEEE802.3u 100BASE-TX
- IEEE802.3x full duplex and flow control

Processing Type
- Half-duplex back-pressure and IEEE802.3x Full-duplex flow control
- Auto Negotiation
- Auto MDI/MDIX

Power

Input Voltage
- 12VDC (DC Jack)

Power Consumption
- 4.56W max.
  0.38A@12VDC

Protection
- Over current protection
- Reverse polarity protection

Mechanical

Casing
- Aluminum case
- IP30

Dimensions
- 80.3mm (W) x 109.2mm (D) x 23.8mm (H)
  (3.16" (W) x 4.30" (D) x 0.94" (H))

Weight
- 150g (0.33 lbs.)

Installation
- DIN-Rail (Top hat type 35mm) or wall mounting

Interface

Ethernet Port
- Port: One RJ-45 port
- Speed: 10/100Mbps
- Distance: 100 meters (328ft.)
- Cable: 10BASE-T: UTP CAT. 3, 4, 5 (2-pair wire)
         100BASE-TX: UTP CAT. 5 (4-pair wire)

Ethernet Extender Port
- Port: One RJ-11/Terminal Blockport
- Speed: Up to 100Mbps
- Distance: 2600 meters (8,530 ft.)
- Cable: Telephone wire 24 AWG
  (0.5mm diameter, 1-pair wire) or larger

DIP-Switch
- DIP 1: AUTO/LOC
- DIP 2: SYM/ASM
- DIP 3: Perf./Std.

LED Indicators
- Per Unit: Power 1
- Per 10/100TX Port: Link/Activity, full-duplex
- Line Speed: 100/80/60/40/20Mbps and link below
- SYM: Symmetric mode (distance ≤ 1000m)
- ASM: Asymmetric mode
- RMT: Remote mode
- LOC: Local mode
- Per: On/Performance mode; Off/Standard mode

Distance (m)	Data rate (Mbps)
300	100
400	80
600	60
800	40
1200	20
2600	1

Note:
- All speed selections are Symmetrical on the DSL and Full-duplex on the Ethernet
- The data rate will vary according to the line quality

Environment

Operating Temperature
- -10°C to 60°C (14°F to 140°F)

Storage Temperature
- -20°C to 70°C (-4°F to 158°F)

Ambient Relative Humidity
- 5% to 95% (non-condensing)

Regulatory Approvals

ISO
- Manufactured in an ISO9001 facility

Safety

UL60950-1

EN60950-1

IEC60950-1

EMI

FCC Part 15B, Class A

VCCI, Class A

EN61000-6-4

EN61000-3-3

EMS

EN61000-6-2
- EN61000-4-2 (ESD Standards)
- EN61000-4-3 (Radiated RFI Standards)
- EN61000-4-4 (Burst Standards)
- EN61000-4-5 (Surge Standards)
- EN61000-4-6 (Induced RFI Standards)
- EN61000-4-8 (Magnetic Field Standards)

Environmental Test Compliance

IEC60068-2-6 Fc (Vibration Resistance)

IEC60068-2-27 Ea (Shock)

FED STD 101C Method 5007.1 (Free fall w/ package)