

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, electrical noise immunity, an operating temperature range from -10°C to 60°C, and ruggedized aluminum housing. The ED3501 is the ideal Ethernet extender for environments where connectivity is crucial.

Spotlight

- **UL 60950 Certification**
 - Certified by UL 60950-1 standard, providing protections to installers from risk of injury or damage
- **High Speed Performance**
 - Up to 100Mbps at 300 meters distance
 - Up to 1Mbps at 2600 meters distance
- **Industrial Operating Temperature**
 - -10°C to 60°C 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 Block port
- 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
...	...
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)
Tested @ -20°C to 70°C (-4°F to 158°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 ISO 9001 facility

Safety

UL 60950-1

EN 60950-1

IEC 60950-1

EMI

FCC Part 15B Class A

VCCI Class A

EN 61000-6-4

EN 61000-3-3

EMS

EN 61000-6-2

- EN 61000-4-2 (ESD Standards)
- EN 61000-4-3 (Radiated RFI Standards)
- EN 61000-4-4 (Burst Standards)
- EN 61000-4-5 (Surge Standards)
- EN 61000-4-6 (Induced RFI Standards)
- EN 61000-4-8 (Magnetic Field Standards)

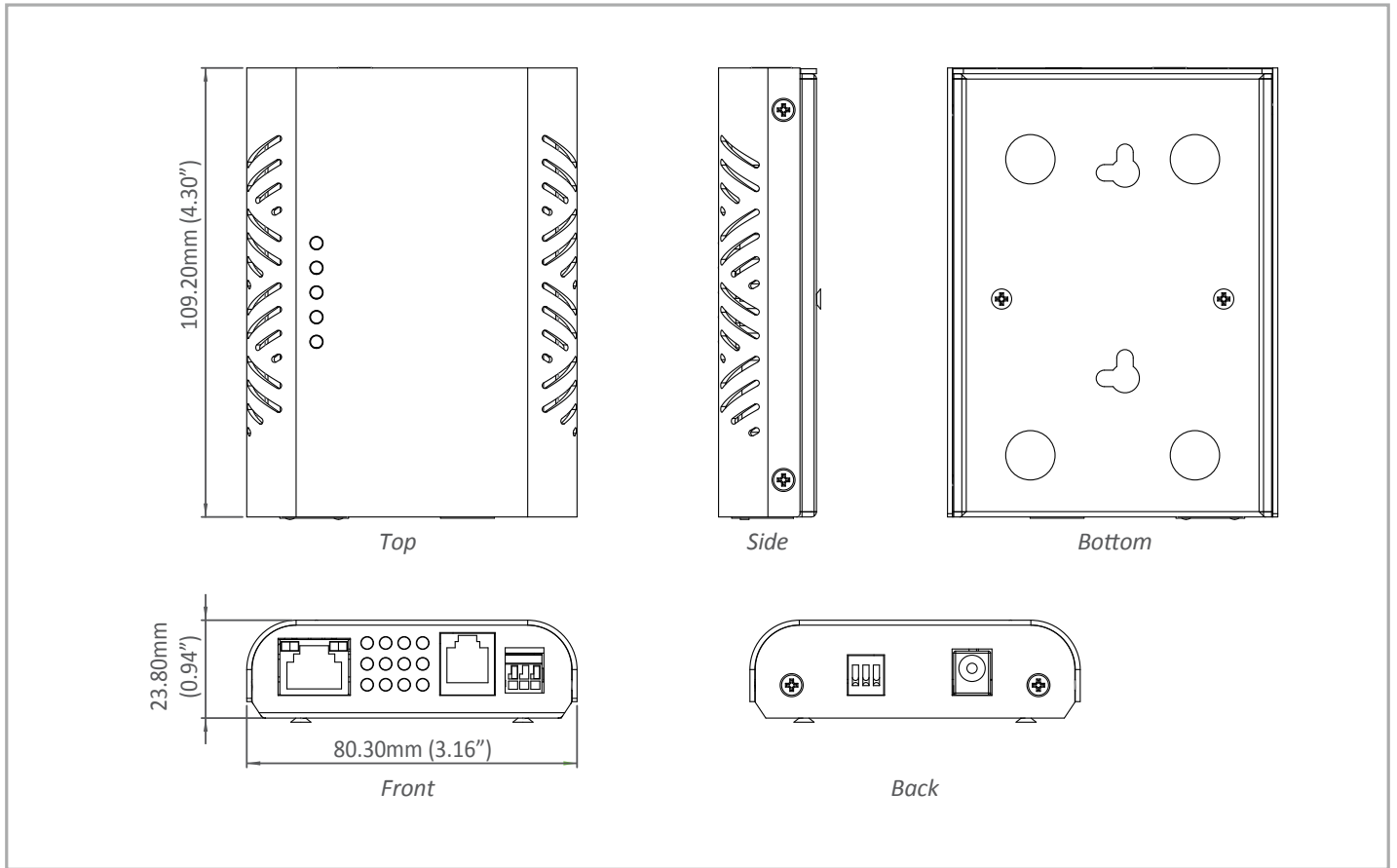
Environmental Test Compliance

IEC 60068-2-6 Fc (Vibration Resistance)

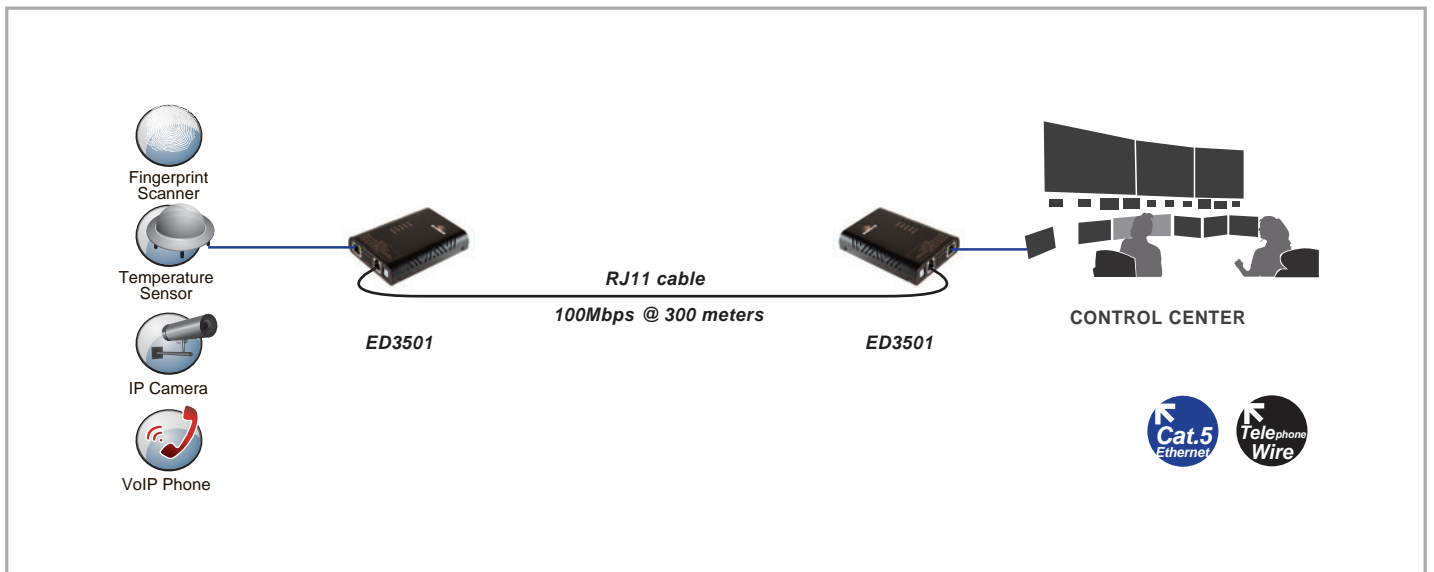
IEC 60068-2-27 Ea (Shock)

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

Dimensions



Application Diagram



Ordering Information

Model

ED3501-X	Industrial 10/100BASE-TX Ethernet Extender
ED3501-D-X	Industrial 10/100BASE-TX Ethernet Extender with DIN-Rail Mounting Kit

External Power Adaptor Options (X)

A	with external power adapter for AU
E	with external power adapter for EU
J	with external power adapter for JP
K	with external power adapter for UK
U	with external power adapter for USA (China CCC certified)