

# ED3341 Series

Hardened 10/100BASE-TX Ethernet Extender over Coaxial Cable



## Overview

The ED3341 Series Ethernet Extender enables the extension of Ethernet connectivity over existing coaxial cable allowing legacy infrastructure to be leveraged for IP networks and extending the Ethernet distance limitations of 100 meters.

Upgrading an existing legacy control or surveillance system to a new IP-based system is a complicated task, especially when existing cable infrastructure is an old coaxial cable. EtherWAN's ED3341 Series provides Ethernet connection and extension over these existing coaxial cables, minimizing the expense of pulling new cable infrastructure.

The ED3341 Series is built with hardened specifications, providing wide temperature operation range from -40°C to 75°C to overcome severe outdoor environments. Incorporating VDSL technology, the ED3341's BNC extender ports provide long distance transmission with 75Mbps rate at 200 meters, or 1Mbps at 2600 meters; 10 speed LED indicators in the front panel provide easy lookup for the connection speed.

## Spotlight

### • UL508 Certification

- Specific design for industrial communication applications with UL508 safety certification

### • EN50121-4 and EN50155 Certification

- Specific design for railway environment application

### • Wide Operating Temperature

- -40°C to 75°C wide operating temperature range design is suitable for installation in outdoor cabinet

# 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)
- 12 to 48VDC (Terminal Block)

### Power Consumption

- 7.2W Max. 0.6A @ 12VDC, 0.15A @ 48VDC

### Protection

- Over current protection
- Reverse polarity protection

## Mechanical

### Casing

- Aluminum case
- IP30

### Dimensions

- 50mm (W) x 110mm (D) x 135mm (H)  
(1.97" (W) x 4.33" (D) x 5.31" (H))

### Weight

- 0.8Kg (1.76lbs.)

### Installation

- DIN-Rail (Top hat type 35mm), Panel or Rack mounting

## Interface

### Ethernet Port

- Port: One RJ-45 port
- Speed: 10/100Mbps
- Distance: 100meters (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 75Ω BNC Port (with F-type connector)
- Speed: 1/5/10/20/30/40/50/60/70/75Mbps
- Distance: 2600 meters (8,530ft.)
- Cable: Coaxial Cable (5C2V/ RG6(=RG6/U))

### DIP-Switch

- One DIP Switch: Local (CO) or Remote (CPE)

### LED Indicators

- Per Unit: Power Status (Power)
- Per Port 10/100TX: Link/Activity, Full-duplex
- Line: Error, Link, Local, Remote

## Speed / Distance Reference

| Speed     | Distance         |
|-----------|------------------|
| 1-5Mbps   | 2,600M(8,530ft.) |
| 6-10Mbps  | 2,400M(7,874ft.) |
| 11-16Mbps | 2,000M(6,561ft.) |
| 17-20Mbps | 1,800M(5,905ft.) |
| 21-29Mbps | 1,600M(5,249ft.) |
| 30-43Mbps | 1,400M(4,593ft.) |
| 44-54Mbps | 1,200M(3,937ft.) |
| 55-63Mbps | 1,000M(3,280ft.) |
| 64-74Mbps | 600M(1,968ft.)   |
| 75-85Mbps | 200M(656ft.)     |

- Note: All speed selections are Symmetrical on the DSL and Full-duplex on the Ethernet

## Environment

### Operating Temperature

- -40°C to 70°C (-40°F to 158°F)  
Tested @ -40°C to 85°C (-40°F to 185°F)

### Storage Temperature

- -40°C to 85°C (-40°F to 185°F)

### Ambient Relative Humidity

- 5% to 95% (non-condensing)

## Regulatory Approvals

### ISO

- Manufactured in an ISO9001 facility

### Safety

#### UL508

### EMI

#### FCC Part 15B, Class A

#### EN61000-6-4, EN55022, EN61000-3-2 and 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)

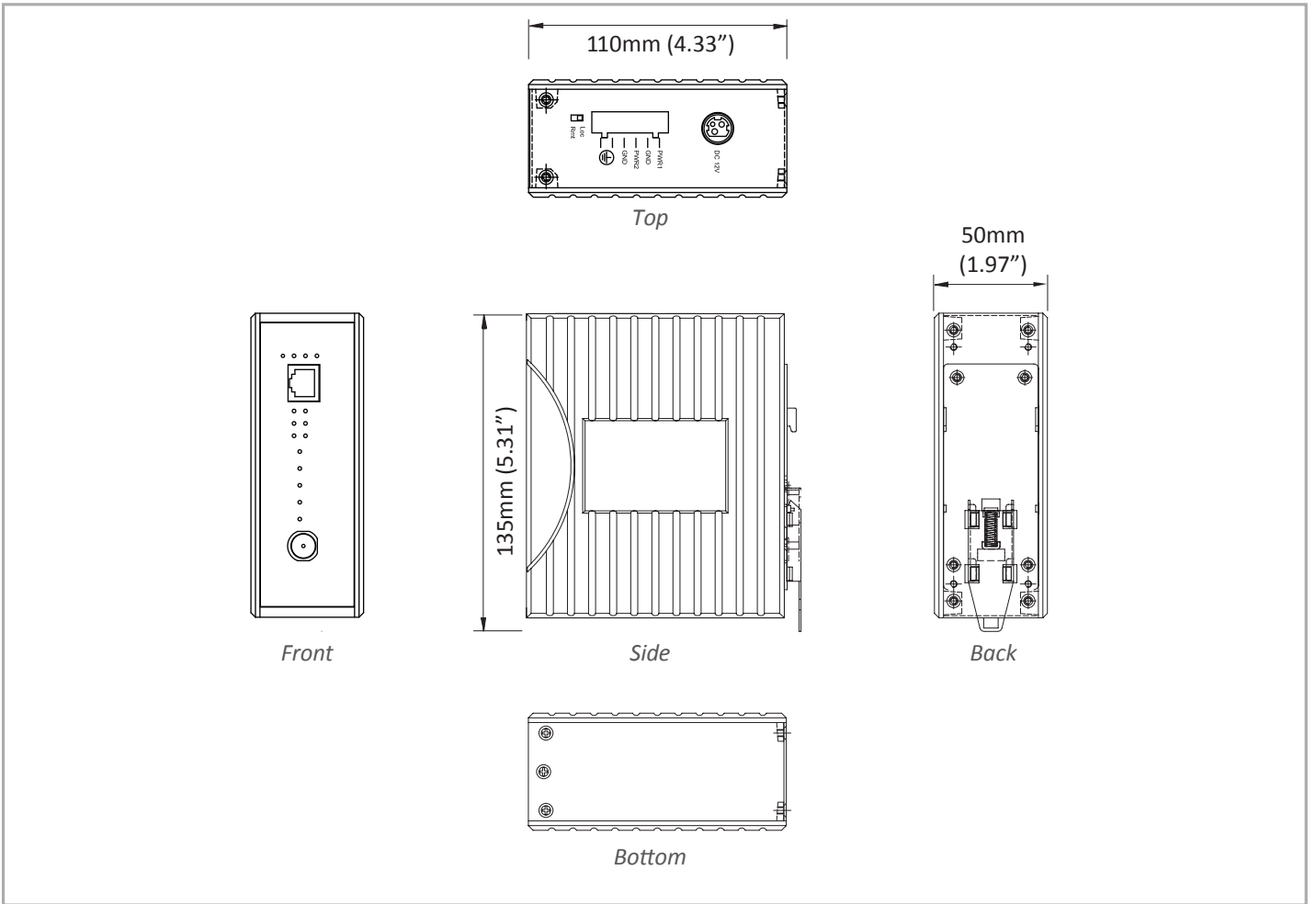
#### FED STD 101C Method 5007.1 (Free fall w/ package)

### Industrial Compliance

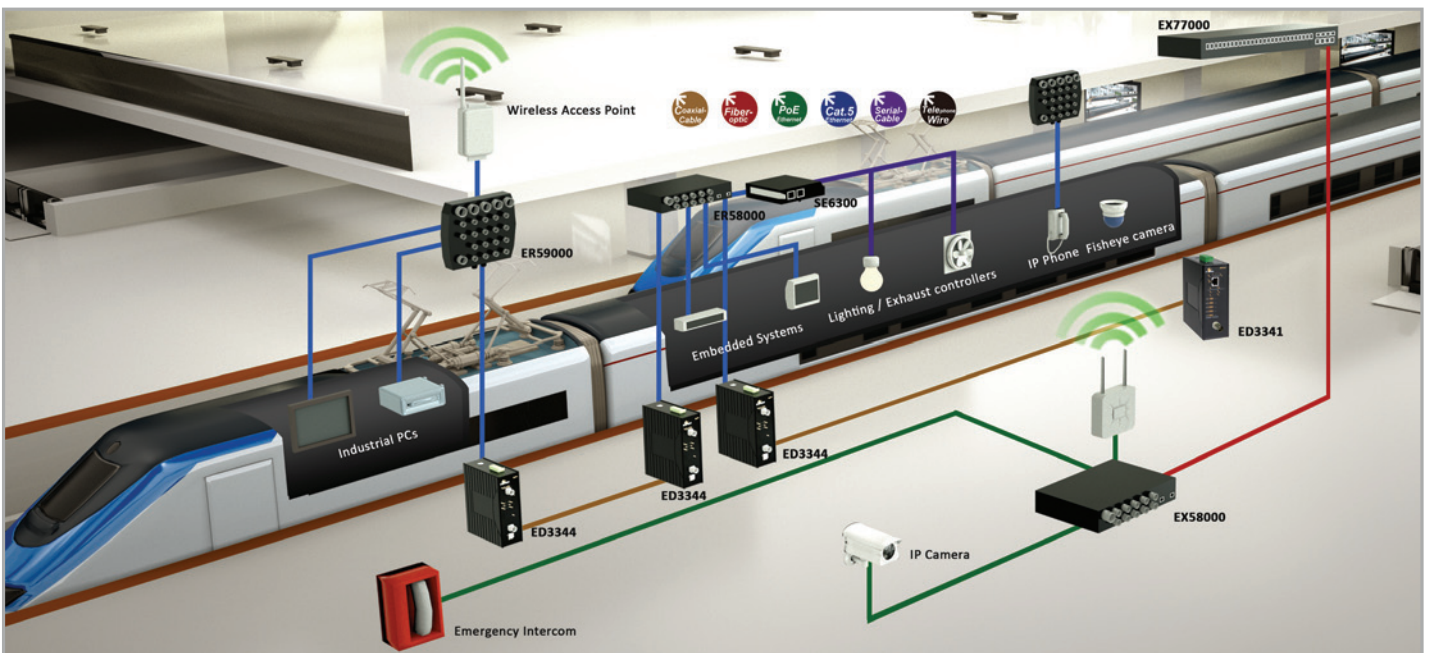
#### EN50121-4

#### EN50155

# Dimensions



# Application Diagram



# Ordering Information

## Model

|                   |   |
|-------------------|---|
| <b>ED3341-00B</b> | Hardened 10/100BASE-TX Ethernet Extender Over Coaxial Cable |
|-------------------|---|

## Optional Accessories

|                    |   |
|--------------------|---|
| <b>KP-AA96-480</b> | Panel Mounting Kit  |
| <b>MDR-40-48</b>   | 40W/0.83A DIN-Rail 48VDC Industrial Power Supply (for Terminal Block)   |
| <b>DR-30-24</b>    | 30W/1.5A DIN-Rail 24VDC Industrial Power Supply (for Terminal Block)  |
| <b>DR-60-24</b>    | 60W/2.5A DIN-Rail 24VDC Industrial Power Supply (for Terminal Block)  |
| <b>DR-75-24</b>    | 75W/3.2A DIN-Rail 24VDC Industrial Power Supply (for Terminal Block)  |
| <b>DR-120-24</b>   | 120W/5A DIN-Rail 24VDC Industrial Power Supply (for Terminal Block)   |
| <b>41-136046-X</b> | 36W/3A 12VDC Hardened Power Adapter with Open Wire in Aluminum Housing (for Terminal Block)<br>(X)=1: US, 2: EU, 3: UK, 4: AU, 5: JP, 6: SA |
| <b>41-136044-X</b> | 36W/3A 12VDC Hardened Power Adapter with Latched DC Jack in Aluminum Housing (for DC Jack)<br>(X)=1: US, 2: EU, 3: UK, 4: AU, 5: JP, 6: SA  |