ED3331 Series

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

Overview

The ED3331 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 old coaxial cable. EtherWAN's ED3331 Series provides Ethernet connection and extension over these existing copper wire cables minimizing the expense of pulling new cable infrastructure.

The ED3331 Series is built with industrial grade specifications, providing wide temperature operation range from -10°C to 60°C to overcome industrial environments. Incorporating VDSL technology, the ED3331's BNC extender ports provide long distance transmission with 75Mbps rate at 200 meters, or 1Mbps at 2600 meters; 5 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

- **Transmission Speed LED Indication**
  - Supports ten speed LED Indicators

- **Industrial Operating Temperature Range**
  - From -10°C to 60°C, wide operating temperature is suitable for outdoor cabinet installation

- **Optional Chassis System**
  - Supports wall mounting or EtherWAN's EMC1600 chassis system for easy group installation with power redundancy

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

Power Consumption
- 5.76W Max. 0.48A @ 12VDC

Protection
- Over current protection
- Reverse polarity protection

Mechanical

Casing
- Aluminum case

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 (0.33lb.)

Installation
- DIN-Rail (Top hat type 35mm) mounting
- Wall mounting
- Install with EMC1600 Chassis

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
- 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
- Per 10/100TX Port: 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
- -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

UL508

EMI

FCC Part 15B, Class A

VCCI, Class A

EN61000-6-3

EN55022

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)
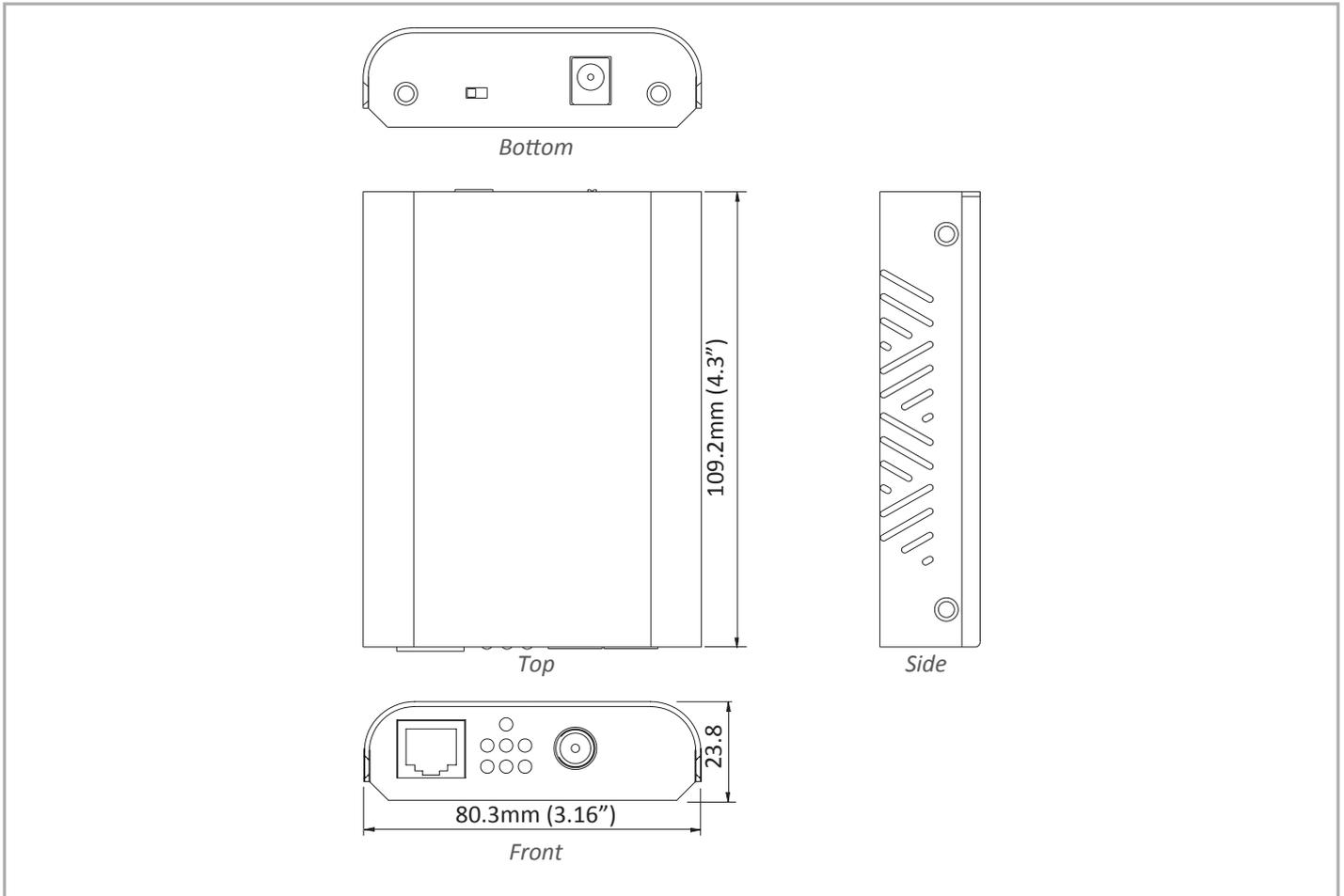- EN61000-4-8 (Magnetic Field Standards)

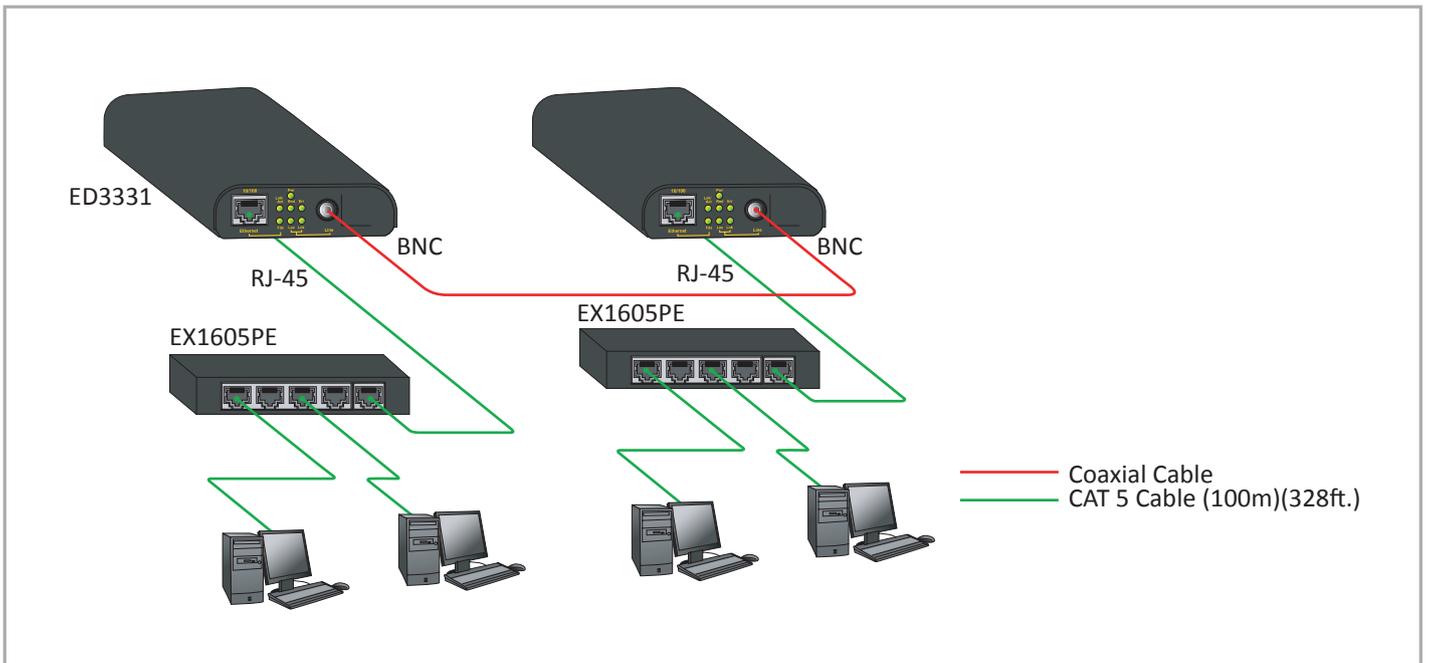### Environmental Test Compliance

IEC60068-2-6 Fc (Vibration Resistance)

IEC60068-2-27 Ea (Shock)

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

Dimensions

Bottom

109.2mm (4.3")

Top

Side

23.8

80.3mm (3.16")

Front

Application Diagram

ED3331

BNC

BNC

RJ-45

RJ-45

EX1605PE

EX1605PE

——— Coaxial Cable
——— CAT 5 Cable (100m)(328ft.)

Ordering Information

Model

ED3331-00Z	Industrial 10/100BASE-TX Ethernet Extender over Coaxial Cable

External Power Adaptor Options (Z)

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
3C	with external power adapter for China