ED3331 Industrial 10/100BASE-TX Ethernet Extender

Ethernet beyond 100 metres over coaxial cable

Overview

The ED3331 is used in pairs to extend Ethernet connectivity over existing coaxial environment. The ED3331 is a point to-Point Ethernet Extender that efficiently extends 10/100 Ethernet circuits to over 200M (656ft.) up to 85Mbits using existing coaxial cable and 1Mbits transmit performance when the distance is up to 2,600 meters (8,530ft.). The ED3331 will allow Ethernet connectivity in existing facilities without pulling extra cable. This is the perfect solution to Ethernet on the factory floor where systems have been upgraded from slower serial communications to Ethernet networking. Installation is easy with a single switch setting in which one end is set for local and the other remote.

Features

- Operates transparent to higher layer protocols
- Ethernet Port: 10/100Mbps-Full-duplex, Auto-Negotiation, Auto-MDI/MDIX
- Ethernet Extender Port: Symmetrical on the VDSL, High-speed
- Full-duplex up to 85Mbps communications link over existing Coaxial cable
- Supports DIP switch to select Local or Remote side

- Ten reference speeds support up to 85 Mbps at about 200 Metres (656ft.), Down to 1 Mbps at about 2600 Metres (8,530ft.)
- -10°C to 60°C (14°F to 140°F) operating temperature range
- Hardened aluminium case
- Supports DIN-Rail, Wall Mounting installation
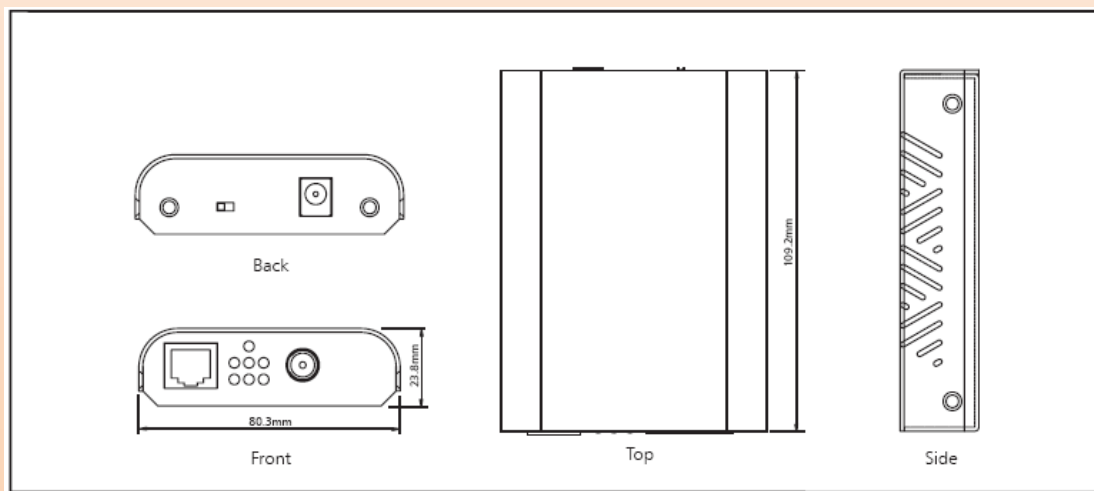- Compatible with EMC1600 Media Converter Chassis

Ordering Information

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

External Power Adapter 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

Diagrams

Specifications

Standards:
- IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX, IEEE802.3x,
- Ethernet over VDSL

Protocols:
- Transparent to higher layer protocols

Processing Type:
- IEEE802.3x Full-duplex flow control

Power

Input:
- Input Voltage: 12VDC

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

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), Wall Mounting
- EMC1600 Chassis

Interface

Ethernet Port:
- Port: One RJ-45 port, 10/100BASE-TX Full-duplex
  Auto-Negotiation, Auto-MDI/MDIX
- Distance: 100meters (328ft.)
- Cable: 10BASE-T: UTP CAT. 3, 4, 5 (2-pair wire)
- 100BASE-TX: UTP CAT. 5 (2-pair wire)

Ethernet Extender Port :
- Port: One Coaxial Port
- Speed Display: 1/5/10/20/30/40/50/60/70/75Mbps
- Max. Distance: 2,600meters (8,530ft.)
- Cable: Coaxial Cable (5C2V / RG6AU)

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.)

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

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 15, Class A
- VCCI, Class A
- EN61000-6-4
- EN55022
- EN61000-3-2
- EN61000-3-3

EMS:
- EN61000-6-2
- EN61000-4-2 (ESD Standards)
  Contact: + / - 4KV; Criteria B
  Air: + / - 8KV; Criteria B
- EN61000-4-3 (Radiated RFI Standards)
  10V/m, 80 to 1000MHz; 80% AM Criteria A
- EN61000-4-4 (Burst Standards)
  Signal Ports: + / - 1KV; Criteria B
  D.C. Power Ports: + / - 2KV; Criteria B
- EN61000-4-5 (Surge Standards)
  Signal Ports: + / - 1KV; Line-to-Line; Criteria B
  D.C. Power Ports: + / - 0.5KV; Line-to-earth; Criteria B
- EN61000-4-6 (Induced RFI Standards)
  Signal Ports: 10Vrms @ 0.15~80MHz; 80% AM Criteria A
- D.C. Power Ports: 10Vrms @ 0.15~80MHz; 80% AM
  Criteria A
- EN61000-4-8 (Magnetic Field Standards)
  30A/m @ 50, 60Hz; Criteria A

Environmental Test Compliance:
- IEC60068-2-6 Fc (Vibration Resistance)
  5g @ 10~150KHz, Amplitude 0.35mm
  (Operation/Storage/Transport)
- IEC60068-2-27 Ea (Shock)
  25g @ 11ms (Half-Sine Shock Pulse; Operation)
  50g @ 11ms (Half-Sine Shock Pulse; Storage/Transport)

IEC60068-2-32 Ed (Free Fall)
- 1M (3.281ft.)

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