



**EtherWAN**

[staging-ed9.hellosanta.tw/us/products/ed3538](http://staging-ed9.hellosanta.tw/us/products/ed3538) ED3538

ED3538

Hardened 10/100BASE-TX PoL/PoE Ethernet Extender over Copper Wires





## Overview

The ED3538 Hardened Ethernet Extender utilizes EtherWAN's exclusive Power over Link (PoL) technology to deliver both PoE power and Ethernet communications over a single legacy twisted pair cable, such as a telephone line. The ED3538 PoL solution is comprised of one transmitter and one receiver working together to provide reliable communications and power to remote PoE Powered Devices such as IP cameras, wireless access points, emergency intercoms, or VoIP phones.

With just the transmitter connected to power, the ED3538 provides a maximum of 30 watts of power and a bandwidth of 100Mbps to the ED3538 receiver, at distances up to 300 meters. Under this setup, transmission over longer distances can be achieved with lower data and power throughput — up to 1200 meters at a data rate of 20Mbps and 5 watts of power. However, for applications that require even longer distances, the ED3538 can be connected to power at both the transmitter and the receiver unit, increasing the transmission distance to a remarkable 2200 meters, with a data rate of 1Mbps and a full 30 watts. The current data transmission rate and power sourcing equipment output is displayed by LED indicators.

The ED3538 is highly resistant to electromagnetic interference, shock, and vibration, ensuring connection reliability even in harsh environments.

EtherWAN — "When Connectivity is Crucial."

## Spotlight

### **Power over Link™ up to 1.2 km (3936 ft.)**

- Over an 1200 meters long RJ11 cable, a guaranteed 5 watts power with 20Mbps bandwidth is delivered to the receiving side

### **Ethernet extension solution with high transmission data rate up to 100Mbps**

- Up to 300 meters transmission distance with 100Mbps data rate

### **Transmission rate and PSE output power indicator LEDs**

- Six transmission rate LEDs and three PoE/PSE output power LEDs on the front panel

## Specifications





# Interface

- **Ethernet Ports**

- ED3538T/R: 1 x 10/100BASE-TX Full-duplex RJ-45 port
- ED3538R: 1 x PoE/PSE port
- Speed: 10/100Mbps
- Cable: 100BASE-TX, UTP CAT. 5 (4-pair wire)
- Distance: 100 meters (328ft.)

- **Ethernet Extender Port**

- 1 x RJ11 port
- 1 x 2-pin Terminal Block (Wire range: 12-30AWG)

- **DIP Switch**

- ED3538T: PoL: On/Off, Type: Perf/Std
- ED3538R: Mode: Loc/Rmt, Type: Perf/Std

- **LED Indicators**

- Per Unit: Power
- Per 10/100TX Port: Link/Activity, Full-duplex
- Line Speed: Six indicators for 100/80/60/40/20Mbps and Link below 20Mbps
- PoE: Power over Ethernet function availability

- **? Speed/Distance/PoE Output Reference**

\* **PoL™ Enabled**

**Distance**

**Data Rate**

**ED3538R PoE Output**

**300m**

**100Mbps**

**30.0W**

**400m**

**90Mbps**

**15.4W**

**600m**

**60Mbps**

**14.0W**

**800m**

**45Mbps**

**9.5W**

**1000m**

**35Mbps**

**7.0W**

**1200m**

**20Mbps**

**5.0W**

\* **PoL™ Disabled (Power Supply Applies on 3538R)**

**Distance**

**Data Rate**





## Environment

- **Operating Temperature**
  - -40 to 75°C (-40 to 167°F)
- **Storage Temperature**
  - -40 to 85°C (-40 to 185°F)
- **Ambient Relative Humidity**
  - 5% to 95% (non-condensing)

## Mechanical

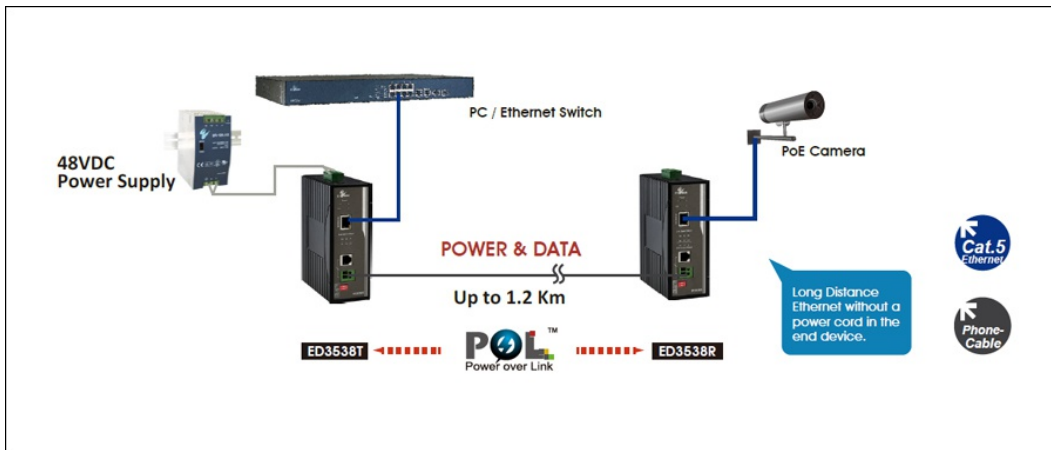
- **Casing**
  - Aluminum Case
  - IP30
- **Dimensions**
  - 50 x 110 x 135mm (W x D x H)  
(1.97" x 4.33" x 5.31")
- **Weight**
  - 0.8Kg (1.76lbs.)
- **Installation**
  - DIN-Rail (Top hat type 35mm), Panel or Rack mounting

## Regulatory Approvals

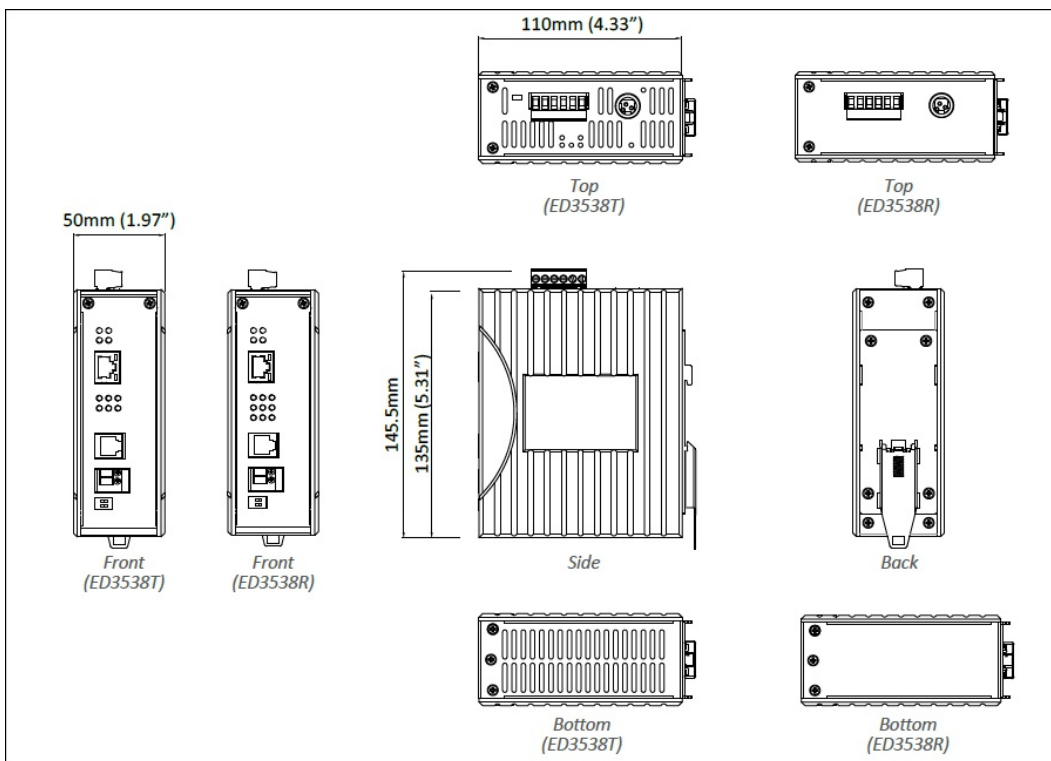
- **ISO**
  - Manufactured in an ISO 9001 facility
- **Safety**
  - UL 60950-1
  - IEC 60950-1
- **Industrial Compliance**
  - EN 50121-4
- **EMI**
  - FCC Part 15B Class A
  - EN 61000-6-4
  - EN 55022
  - EN 61000-3-2
  - EN 61000-3-3
- **EMS**
  - EN 61000-6-2
    - • EN 61000-4-2 (ESD Standards)
    - • 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 Compliances**
  - IEC 60068-2-6 Fc (Vibration)
  - IEC 60068-2-27 Ea (Shock)



## Application



## Dimensions



## Ordering Info

### Model

#### **ED3538**

Hardened PoL/PoE Ethernet Extender over Copper Wires (Including one ED3538T and one ED3538R)

\* ED3538T is the power transmitter of PoL and ED3538R is the power receiver of PoL.

\* DIN-Rail mounting kit included.

## Optional Power Supplies

#### **EDR-120-48**

120W/2.5A DIN-Rail 48VDC Industrial Power Supply

**NDR-120-48**

120W/2.5A DIN-Rail 48VDC Industrial Power Supply

**SDR-480-48**

480W/10A DIN-Rail 48VDC Industrial Power Supply



© EtherWAN Systems, Inc. All rights reserved. 20240920

EtherWAN is constantly developing and improving products. Specifications are subject to change without notice and without incurring any obligation.