

ED3538T/ED3538R

Hardened 10/100BASE-TX PoL/PoE Ethernet Extender Kit

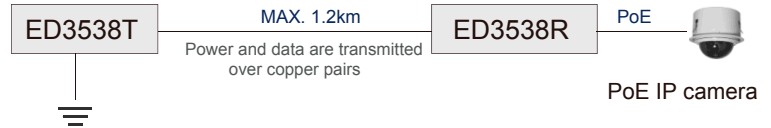


Value

- › Power over Ethernet up to 1.2 kilometers over pair copper wire
- › Ethernet extension solution with high transmission data rate up to 100Mbps
- › Ethernet extension up to 2.2 kilometers

PoL (Power over Link)

Advanced Single Cable Solution for Power and Data



Features

- › Complies with IEC61000-6-2 EMC Generic standard immunity for Industrial environment
- › Ethernet Port: 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX
- › 100Mbps communications link over existing copper telephone wire
- › Operates transparent to higher layer protocols
- › Six speeds with speed indicator LEDs on front panel of unit, Up to 100Mbps @ about 300meters (984 ft.); 1Mbps @ about 2,200meters (7,2186 ft.)
- › ED3538R supports IEEE802.3at PSE standard for PoE/PD applications
- › Supports Power Over Link application up to 1,200 meters (3,937 ft.) for Max. 5 watts power consumed PoE powered devices
- › Auto data rate negotiation for Ethernet extension interface
- › Redundant power inputs with Terminal Block and DC Jack
- › -40°C to 75°C (-40°F to 167°F) operating temperature range and tested at -40°C to 85°C (-40°F to 185°F)
- › Hardened aluminum case
- › Supports DIN-Rail, Panel and Rack mount installation

Ordering Information

ED3538T	Hardened 10/100BASE-TX Ethernet Extender with PoL Transceiver
ED3538R	Hardened 10/100BASE-TX PoE Ethernet Extender with PoL Receiver

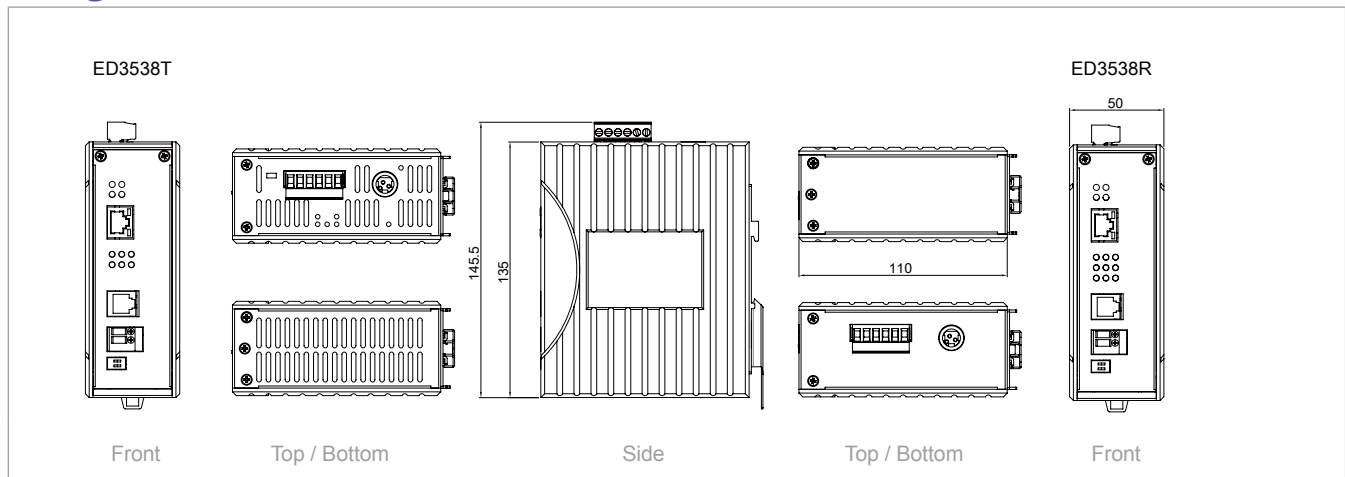
Power Supply : (Optional)

*Option - The Terminal Block type external power supplies are not included. Please order the following part numbers:

DR-120-48, SDR-120-48, SDR-240-48, SDR-480-48

Diagrams

Unit: mm



Specifications

Technology																																											
Standards	<ul style="list-style-type: none"> IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX, IEEE802.3x, IEEE802.3af, IEEE802.3at PoE/PSE 																																										
Protocols	<ul style="list-style-type: none"> Transparent to higher layer protocols 																																										
Processing Type	<ul style="list-style-type: none"> IEEE802.3x Full-duplex flow control 																																										
Power																																											
Input	<ul style="list-style-type: none"> Terminal Block: 46 - 57VDC DC JACK: 48VDC 2.5A @ 48VDC (Peak current 3.26A) 																																										
Power Consumption	Max. 65W with Power over Link (PoL) function enabled ED3538T: Max. 5W (without PoL / PoE) ED3538R: Max. 5W (without PoL / PoE) Max. 35W (with PoE only)																																										
<ul style="list-style-type: none"> Supports overload current protection Supports reverse polarity protection 																																											
Mechanical																																											
Casing	<ul style="list-style-type: none"> Aluminum case IP30 																																										
Dimensions	<ul style="list-style-type: none"> 50mm (W) x 110mm (D) x 135mm (H) (1.97" (W) x 4.33" (D) x 5.31" (H)) 																																										
Weight	<ul style="list-style-type: none"> 0.8Kg (1.76lbs.) 																																										
Installation	<ul style="list-style-type: none"> DIN-Rail (Top hat type 35mm), Panel, Rack Mounting 																																										
Interface																																											
Ethernet Port	<ul style="list-style-type: none"> ED3538T/R: 1x RJ-45 port, 10/100BASE-TX Full-duplex, ED3538R: 1x PoE/PSE port Auto-Negotiation, Auto-MDI/MDIX Speed: 10/100Mbps Distance: 100meters (328ft.) Cable: 100BASE-TX: UTP CAT. 5 (4-pair wire) 																																										
Ethernet Extender Port	<ul style="list-style-type: none"> Port: One RJ-11 and one 2-pin Terminal Block Distance: <table border="1"> <thead> <tr> <th colspan="3">Power over Link (PoL) Enable</th> </tr> <tr> <th>Distance</th> <th>Data Rate</th> <th>ED3538R PoE Output</th> </tr> </thead> <tbody> <tr> <td>300M</td> <td>100Mbps</td> <td>30.0W</td> </tr> <tr> <td>400M</td> <td>90Mbps</td> <td>15.4W</td> </tr> <tr> <td>600M</td> <td>60Mbps</td> <td>14.0W</td> </tr> <tr> <td>800M</td> <td>45Mbps</td> <td>9.5W</td> </tr> <tr> <td>1000M</td> <td>35Mbps</td> <td>7.0W</td> </tr> <tr> <td>1200M</td> <td>20Mbps</td> <td>5.0W</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="3">Power over Link (PoL) Disable (Power Supply Applies on ED3538R)</th> </tr> <tr> <th>Distance</th> <th>Data Rate</th> <th>ED3538R PoE Output</th> </tr> </thead> <tbody> <tr> <td>1400M</td> <td>15Mbps</td> <td>30.0W</td> </tr> <tr> <td>1600M</td> <td>10Mbps</td> <td>30.0W</td> </tr> <tr> <td>1800M</td> <td>3Mbps</td> <td>30.0W</td> </tr> <tr> <td>UP to 2200M</td> <td>1Mbps</td> <td>30.0W</td> </tr> </tbody> </table> <p>NOTE: Reference Performance on 24 AWG copper wire (0.5mm diameter, 1-pair wire, Cable impedance: 100ohm)</p>	Power over Link (PoL) Enable			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	Power over Link (PoL) Disable (Power Supply Applies on ED3538R)			Distance	Data Rate	ED3538R PoE Output	1400M	15Mbps	30.0W	1600M	10Mbps	30.0W	1800M	3Mbps	30.0W	UP to 2200M	1Mbps	30.0W
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DIP switch	<ul style="list-style-type: none"> ED3538T: PoL: ON/OFF, Type: Per/Std ED3538R: Mode: Loc/Rmt, Type: Per/Std 																																										
LED Indicators	<ul style="list-style-type: none"> Per Unit: Power Status (Power) Per Port: 10/100TX: Link/Activity, Full-duplex Line Speed: Six indicators for 100/80/60/40/20Mbps and Link below 20Mbps PoE: Power over Ethernet function availability 																																										

Environment	
Operating Temperature	<ul style="list-style-type: none"> -40°C to 75°C (-40°F to 167°F) Tested @ -40°C to 85°C (-40°F to 185°F)
Storage Temperature	<ul style="list-style-type: none"> -40°C to 85°C (-40°F to 185°F)
Ambient Relative Humidity	<ul style="list-style-type: none"> 5% to 95% (non-condensing)
Regulatory Approvals	
ISO	<ul style="list-style-type: none"> Manufactured in an ISO9001 facility
Safety	<ul style="list-style-type: none"> UL60950-1, IEC60950-1
EMI	<ul style="list-style-type: none"> FCC Part 15, Class A EN61000-6-4 <ul style="list-style-type: none"> EN55022 EN61000-3-2 EN61000-3-3
EMS	<ul style="list-style-type: none"> EN61000-6-2 <ul style="list-style-type: none"> EN61000-4-2 (ESD Standards) Contact: +/- 4KV Air: +/- 8KV EN61000-4-3 (Radiated RFI Standards) 10V/m, 80 to 1000MHz; 80% AM EN61000-4-4 (Burst Standards) Signal Ports: +/- 4KV D.C. Power Ports: +/- 4KV EN61000-4-5 (Surge Standards) Signal Ports: +/- 2KV; Line-to-Line D.C. Power Ports: +/- 0.5KV; Line-to-earth EN61000-4-6 (Induced RFI Standards) Signal Ports: 10Vrms @ 0.15 - 80MHz; 80% AM D.C. Power Ports: 10Vrms @ 0.15 - 80MHz; 80% AM EN61000-4-8 (Magnetic Field Standards) 30A/m @ 50, 60Hz
Environmental Test Compliance	<ul style="list-style-type: none"> IEC60068-2-6 Fc (Vibration Resistance) 5g @ 10 - 150Hz, 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.)