

ED3638

PoL

Power over Link

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

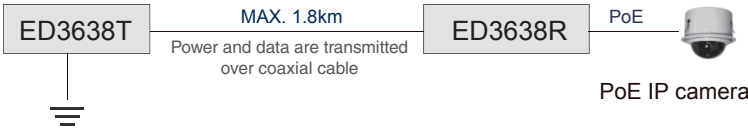


Value

- › Power over Ethernet up to 1.8 km (5905 ft.) over coaxial cable
- › Ethernet extension solution with high transmission data rate up to 100Mbps
- › Ethernet extension up to 2.4 km (7874 ft.)

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 coaxial cable
 - › Operates transparent to higher layer protocols
 - › Six speeds with speed indicator LEDs on front panel of unit, up to 100Mbps @ about 400meters (1,312 ft.) ; 1Mbps @ about 2,400meters (7,874 ft.)
- › ED3638R supports IEEE802.3at PSE standard for PoE/PD applications
 - › Supports Power Over Link application up to 1,800 meters (5,905ft.) for Max. 4 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

ED3638	Hardened PoL/PoE Ethernet Extender over Coxial Cable (including one ED3638T and one ED3638R)
Note: ED3638T is PoL Transceiver and ED3638R is PoL Receiver	

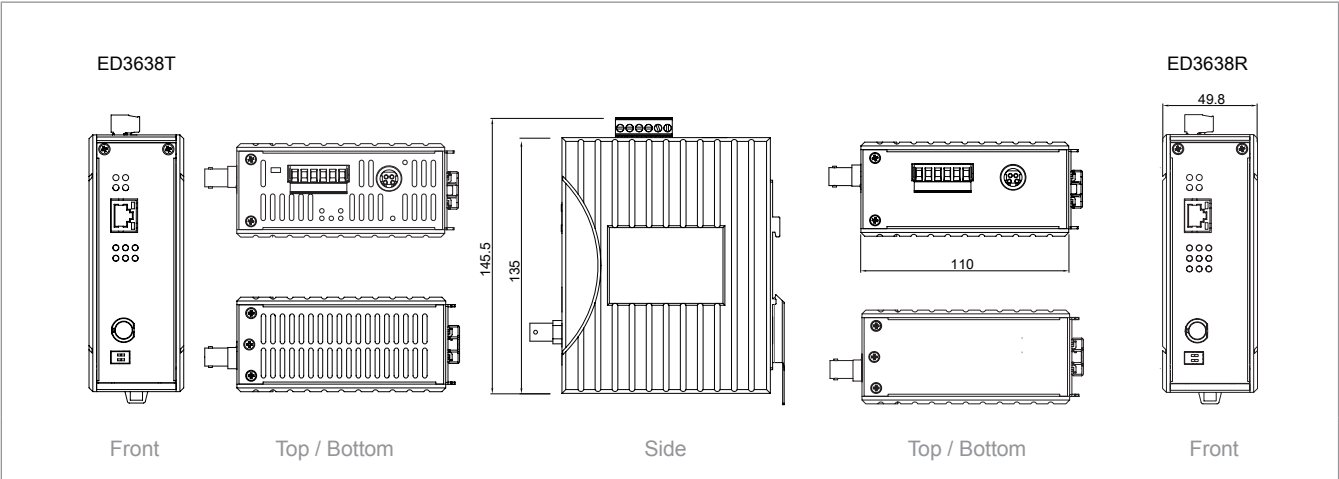
Power Supply:

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

Power supply suggestion	30 watts PoE application
SDR-120-48 / DR-120-48 (120W 48VDC)	For one pair
SDR-240-48 (240W 48VDC)	For three pairs
SDR-480-48 (480W 48VDC)	For seven pairs

Diagrams

Unit: mm



Specifications

Technology	
Standards	IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX, IEEE802.3x, IEEE802.3af, IEEE802.3at PoE/PSE
Protocols	Transparent to higher layer protocols
Processing Type	IEEE802.3x Full-duplex flow control

Power	
Input	- 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 ED3638T: Max. 5W (without PoL / PoE) ED3638R: Max. 5W (without PoL / PoE) Max. 35W (with PoE only)

- Supports overload current protection
- Supports 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, Rack Mounting

Interface			
Ethernet Port	• ED3638T/R: 1x RJ-45 port,10/100BASE-TX Full-duplex, ED3638R: 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	• Port: One 75Ω BNC Port (with F-type connector), Cable: Coaxial Cable (5C2V / RG6AU) • Coaxial Cable (5C2V / RG6AU) • Distance:		
	Power over Link (PoL) Enable		
	Distance	Data Rate	ED3638R PoE Output
	400M	100Mbps	30.0W
	800M	60Mbps	15.4W
	1000M	50Mbps	12.0W
	1200M	45Mbps	8.0W
	1600M	20Mbps	6.0W
	1800M	15Mbps	4.0W
	Power over Link (PoL) Disable (Power Supply Applies on ED3638R)		
Distance	Data Rate	ED3638R PoE Output	
2000M	9Mbps	30.0W	
2200M	6Mbps	30.0W	
UP to 2400M	4Mbps	30.0W	
• Reference Performance tested on RG6 coaxial cable			
DIP switch	• ED3638T: PoL: ON/OFF, Type: Perf/Std - ED3638R: Mode: Loc/Rmt, Type: Perf/Std		
LED Indicators	• 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	-40°C to 75°C (-40°F to 167°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	UL60950-1, IEC60950-1
EMI	- FCC Part 15, Class A - EN61000-6-4 - EN55022 - EN61000-3-2 - EN61000-3-3
EMS	- EN61000-6-2 - 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	- 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.)