

# Ethernet Connectivity

## LAN extension the simple way

Technology

Application

Product



Stretch beyond the  
100-meter Ethernet distance limit

- Ethernet Extenders over Copper Pair
- Ethernet Extenders over Coaxial Cable
- Ethernet Extenders with IEEE802.3at PoE PSE





# Over Coaxial Cable up to 2600m

EtherWAN Ethernet Extender over Coaxial Cable series provide an Ethernet connection/extension over legacy coaxial cables, with a wide temperature operation range of -40°C to 75°C to ensure operation in harsh environments. Incorporating VDSL technology, the BNC extender ports provide long-distance transmission with 75 Mbps at 200 meters, or 1Mbps at 2600 meters.



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

C D W

EN50155

**ED3341**  
Hardened 10/100BASE-TX Ethernet Extender  
over Coaxial Cable

D P R

EN50155

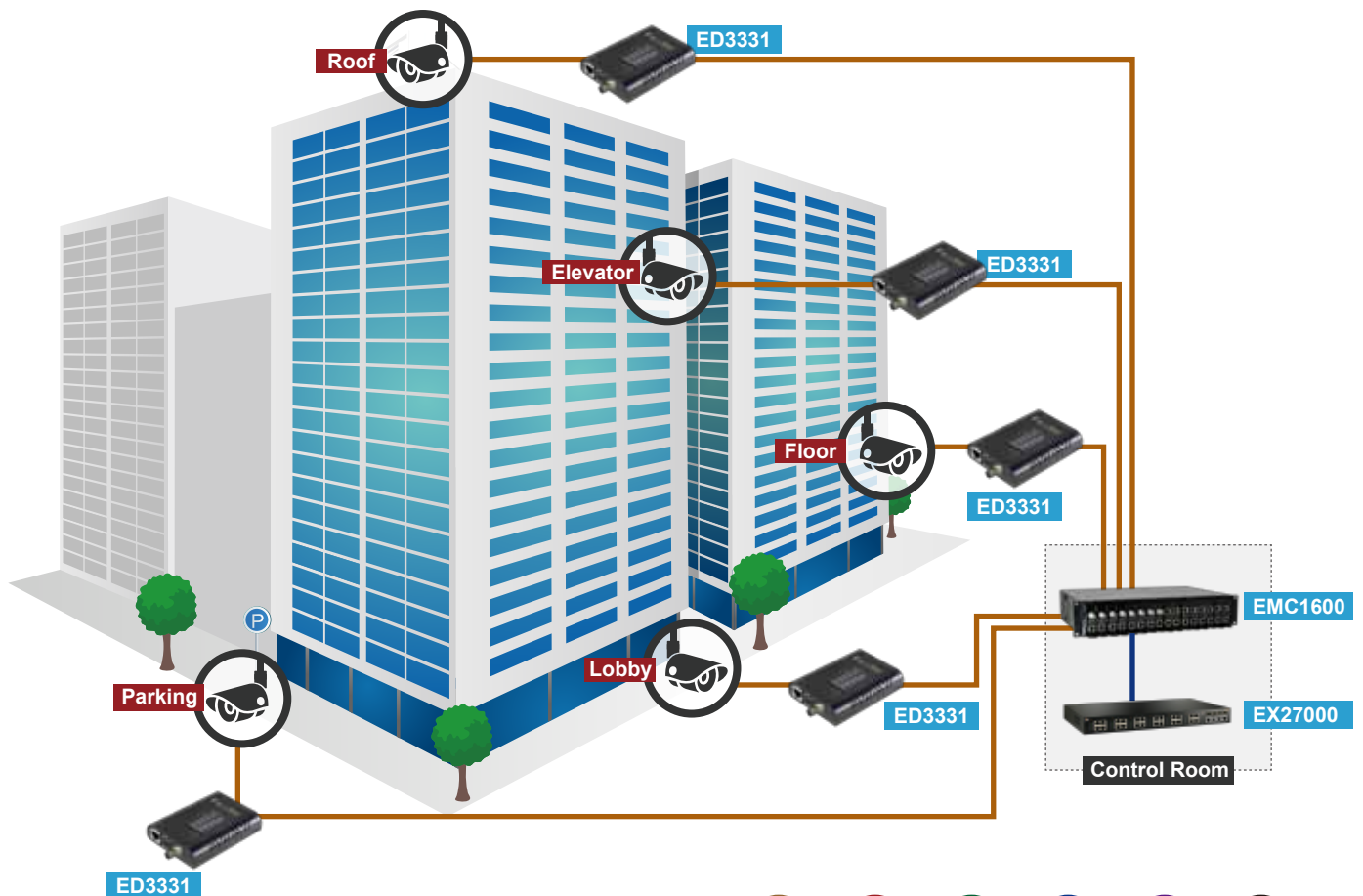
**ED3344**  
Hardened 10/100BASE-TX M12 Ethernet  
Extender over Coaxial Cable

D P R

C Chassis D DIN-Rail P Panel R Rack W Wall K Desktop

## Smart Buildings

Smart Buildings are based on TCP/IP technology to form a variety of functions to ensure a comfortable and secure living or working environment. Building automation is the way of the future and may involve access control ranging from one or many doors to a fully integrated system. A smart building can include door access control, alarm systems, VoIP and full automation of any electrical device such as air conditioning, lighting, signs, lifts, irrigation, and temperature control for home or commercial applications.





# Over Copper Wires up to 2600m

EtherWAN Ethernet Extenders over Copper Wires are built to hardened specifications, providing a wide -40°C to 75°C operating temperature range to overcome harsh outdoor environments, and leveraging existing infrastructure to extend IP networks. The RJ11 /terminal block extender ports provide data transmission at a rate of 100 Mbps at 300 meters, or 1Mbps at 2600 meters.

## ED3501

Industrial 10/100BASE-TX Ethernet Extender

C D W

## ED3541

Hardened 10/100BASE-TX Ethernet Extender

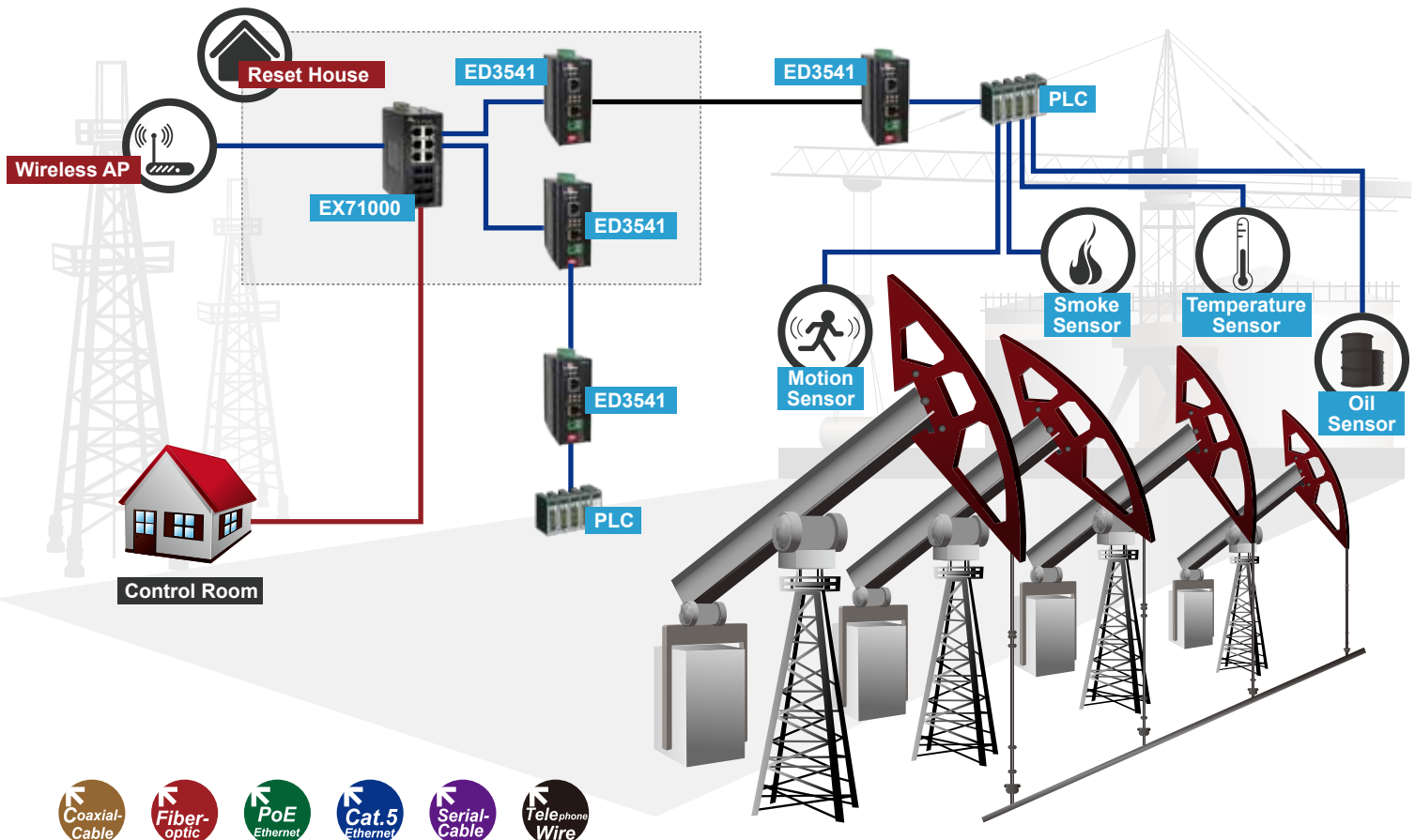
D P R

C Chassis D DIN-Rail P Panel R Rack W Wall K Desktop



## Oil Drilling Sensor Systems

Petroleum drilling engineering often happens in harsh environments both in extremely cold and extremely hot locations. With many pipes, sensors, electrical and mechanical devices, drilling engineering requires a lot of information gathering and control systems. In a modern drilling system, communication systems are responsible for gathering information and communicating with drilling control systems. EtherWAN's hardened Ethernet extender is designed especially for applications in harsh environments. With a wide operating temperature range and dual power inputs, EtherWAN's Ethernet extender can break the 100 meter limit of traditional Ethernet transmission distance and connect all kinds of equipment.





# Power & Data over Ethernet Extension Links

Power over Link™ means power and data are transported over a single pair of wires, between two locations. The wire may be a phone cable or a coaxial cable. EtherWAN has developed a system, consisting of a pair of devices that allow a user to connect any PoE powered device to an Ethernet network without supplying power at the end device location.

## → PoL™ over Copper Wires

### ED3538

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

D

C Chassis D DIN-Rail P Panel R Rack W Wall K Desktop



## → PoL™ over Coaxial Cable

### ED3638

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

D

### ED3238

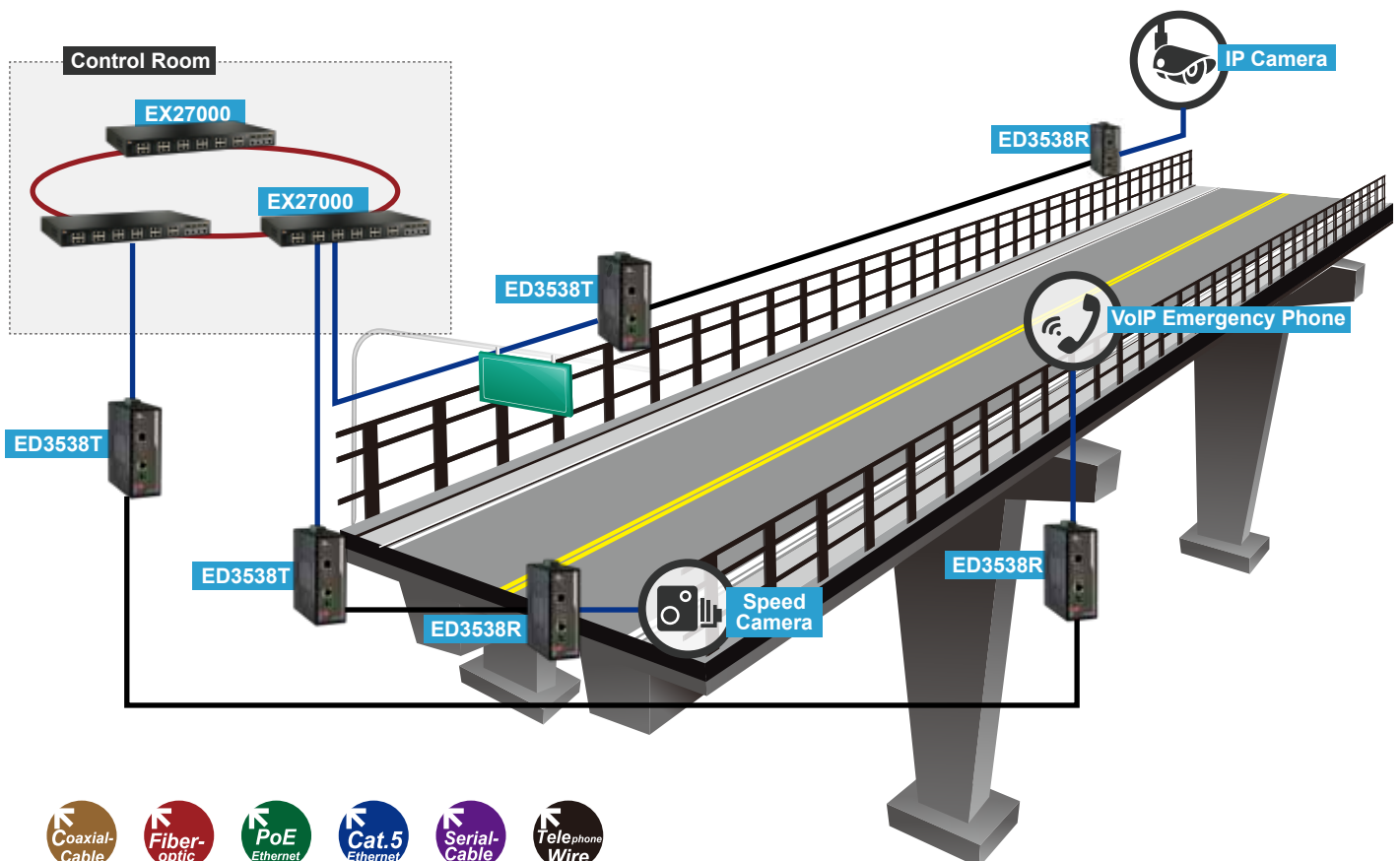
10/100BASE-TX PoL/PoE Ethernet Extender over Coaxial Cable

K P R W



## Intelligent Bridge Solutions

How does one overcome the difficulty in acquiring power in an outdoor environment to design and install reliable communications for bridge safety monitoring and control systems? EtherWAN's PoL Series allows users to take advantage of existing cabling infrastructure as well as to provide a way to install new systems without the requirement to bring power to remote locations where you may want to install a device such as a camera, VoIP emergency phone or sensor system.



EN50155

EN50155



New

New



Coaxial	ED3341	ED3344	ED3331
Interface			
10/100 BASE-TX	1	1(M12)	1
Max. PoE Ports	-	-	-
Extension Interface			
RJ-11	-	-	-
BNC	1	1	1
Mode of Operations			
Auto-negotiation, Auto-MDI/MDI-X	✓	✓	✓
Store & Forward	✓	✓	✓
Mechanical			
Installation*	D, P, R	D, P, R	C, D, W
Dimensions (WxDxH mm)	50x110x135	50x110x135	80.3x109.2x23.8
Power Input			
No. of Power Inputs	3	3	1
Terminal Block	12-48VDC	12-48VDC	-
DC Jack	12VDC	12-48VDC	12VDC
AC to DC Adapter	-	-	-
Operating Temperature	-40°C~75°C	-40°C~75°C	-10°C~60°C
Regulatory Approvals			
CE / FCC / VCCI	✓	✓	✓
UL508	✓	✓	✓
UL/cUL 60950-1	-	-	-
EN50121-4	✓	✓	-
EN50155	✓	✓	-

Copper	ED3501	ED3541
Interface		
10/100 BASE-TX	1	1
Extension Interface		
RJ-11	1	1
Terminal Block	1	1
Mechanical		
Installation*	C, D, W	D, P, R
Dimensions (WxDxH mm)	80.3x109.2x23.8	42x90x100
Power Input		
No. of Power Inputs	1	2
Terminal Block	-	12-48VDC
DC Jack	12VDC	-
Operating Temperature	-10°C~60°C	-40°C~75°C
Regulatory Approvals		
CE / FCC / VCCI	✓	✓
UL/cUL 60950-1	✓	✓

## ED3501 / ED3541 Performance

Data Rate (min. Rate)	ED3501	ED3541
	Distance	Distance
100Mbps	300m(984ft.)	300m(984ft.)
80Mbps	400m(1312ft.)	400m(1312ft.)
60Mbps	600m(1968ft.)	600m(1968ft.)
40Mbps	800m(2624ft.)	800m(2624ft.)
20Mbps	1200m(3937ft.)	1200m(3937ft.)
1Mbps	2600m(8530ft.)	2600m(8530ft.)

### Note:

- \* All speed selections are Symmetrical on the DSL and Full duplex on the Ethernet
- \* The data rate may vary according to line quality



Power over Link	ED3638	ED3538	ED3238
Interface			
10/100 BASE-TX	1	1	1
Max. PoE Ports	1(30W)	1(30W)	1(15.4W)
Extension Interface			
RJ-11	-	1	-
BNC	1	-	1
Mode of Operations			
Auto-negotiation, Auto-MDI/MDI-X	✓	✓	✓
Store & Forward	✓	✓	✓
Mechanical			
Installation*	D, P, R	D, P, R	C
Dimensions (WxDxH mm)	50x110x135	50x110x135	46x98x25
Power Input			
No. of Power Inputs	3	3	1
Terminal Block	46-57VDC	46-57VDC	-
DC Jack	48VDC	48VDC	57VDC
AC to DC Adapter	-	-	✓
Operating Temperature	-40°C~75°C	-40°C~75°C	-10°C~50°C
Regulatory Approvals			
CE / FCC / VCCI	✓	✓	✓
UL508	-	-	-
UL/cUL 60950-1	✓	✓	✓
EN50121-4	-	-	-
EN50155	-	-	-



## ED3538 / ED3638 PoL™ Performance

Data Rate (min. Rate)	ED3538 (Pair of 24AWG copper wire)		ED3638 (RG6 Coaxial cable)	
	Distance	PoE Power Output	Distance	PoE Power Output
100Mbps	300m(984ft.)	30.0W	400m(1312ft.)	30.0W
80Mbps	400m(1312ft.)	15.4W	600m(1968ft.)	15.4W
60Mbps	600m(1968ft.)	14.0W	1000m(3280ft.)	15.4W
40Mbps	1000m(3280ft.)	9.5W	1200m(3937ft.)	8W
20Mbps	1200m(3937ft.)	5W	1600m(5249ft.)	6W

## ED3238 PoL™ Performance

ED3238 (RG11 Coaxial cable)		ED3238 (RG6 Coaxial cable)	
Distance	PoE Power Output	Distance	PoE Power Output
250m(820ft.)	15.4W	180m(590ft.)	15.4W

\* C: Chassis, D: DIN-Rail Mounting, P: Panel Mounting, R: Rack Mounting, W: Wall Mounting

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