

# OUTREACH™ MAX XT

EXTERNAL ETHERNET & POE EXTENDER



Tough outdoor Power over Ethernet  
and network range extender

Reliably extend your network cable runs to IP cameras, wireless access points  
and equipment which must be installed externally

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Tough IP66 rated enclosure for external installation

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Instantly doubles cable range to 200 metres

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Extends up to 800 metres with multiple units

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Compatible with POE, POE Plus and custom POE to 60 watts

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Full unrestricted network bandwidth

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Secure wall mounting with detachable bracket

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# OUTREACH Max XT overcomes the distance limits of standard Ethernet cable

Simply connecting an OUTREACH Max XT in line with the network cable instantly boosts the Ethernet range from 100 to 200 metres.

Cable lengths in Ethernet networks are limited to 100 metres (328 ft), which is a serious restriction in many installations.

OUTREACH Max XT enables installers to overcome this network limitation. Simply connecting an OUTREACH Max XT in line with the network cable instantly boosts the Ethernet range from 100 to 200 metres (656 ft).

## Simple to install

Fitting OUTREACH Max XT is simple because no set-up is required. Its only connections are two RJ45 network ports, both of which immediately self-configure for 10 or 100BASE-T operation. POE power is automatically transferred between connected equipment.

And because OUTREACH Max XT is also POE-powered, no local power supply connection is needed.

OUTREACH Max XT can be located anywhere along the network cable, as long as no single length of cable is greater than 100 metres. For example, to extend the network connection between a POE switch and an IP camera

to 170 metres, an OUTREACH Max XT could be installed 90 metres from the switch. A further 80 metres of cable would run from the OUTREACH Max XT to the camera.

## Max POE power

OUTREACH Max XT enables network range extension to all POE devices that are compatible with IEEE 802.3af, which is the universal POE standard for low power network devices such as fixed IP cameras.

In addition, OUTREACH Max XT is also compatible with high-power standards such as POE Plus (IEEE 802.3at), and even "4-pair" POE for devices of 60 watts or more.

Note : OUTREACH Max XT is designed for connection to POE compatible equipment only. If POE power is not required, Veracity's OUTREACH Lite XT should be specified instead.

## Go further

If POE and network extension beyond 200 metres (656 ft) is required, more than one OUTREACH Max XT may be

installed in series. For example, a 300 metre (984 ft) connection between a POE switch and a 10 watt IP camera can be achieved by fitting two OUTREACH Max XT units at 100 metre intervals along the cable.

Or a 5 watt IP camera may be located up to 800 metres away, using seven OUTREACH Max XT units and Veracity's OUTSOURCE POE injector. However, for long extensions, Veracity's LONGSPAN device may be a more suitable choice. The maximum extension distance depends on how much power is required and which POE source is used. See the tables on the next page or read Veracity's "Long Range Ethernet Extension" white paper on our website.

## External Application

OUTREACH Max XT is specifically designed for external installation with guaranteed operation over an extended temperature range. Its rugged and streamlined enclosure features IP66-rated connector covers that assemble around conventionally terminated Cat 5e and Cat 6 cables.

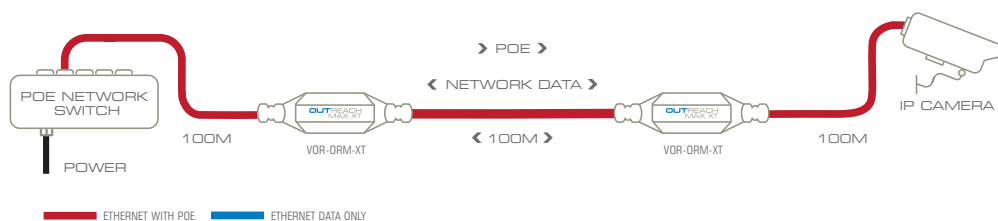


Diagram 1. A single OUTREACH Max XT doubles the cable range to a POE IP Camera. Each cable segment can be up to 100 metres.

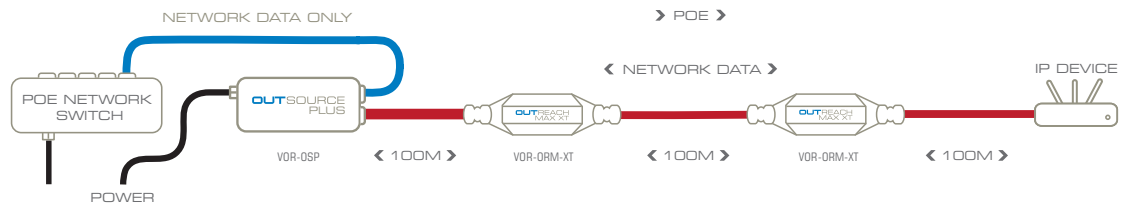


Diagram 2. Veracity's OUTSOURCE Plus provides enough power to allow 300 metres [984 ft] of extension to a POE Plus wireless access point, using two OUTREACH Max XT units located at 100 metre intervals.

### Which type of OUTREACH do I need?

Choosing between OUTREACH Max XT and OUTREACH Lite XT is straightforward:

**If only Ethernet extension is required, use OUTREACH Lite XT**

OUTREACH Lite XT extends Ethernet only and does not forward POE.

**If POE forwarding is also required, use OUTREACH Max XT**

OUTREACH Max supports all standards of POE forwarding, but does not support data-only extension.

For indoor LAN extension, please see OUTREACH Max and OUTREACH Lite standard versions.

For network extension to devices which are unknown or may change, please consider OUTREACH Quad.

### Maximum Extension Distance

By installing an OUTREACH Max XT for every extra 100 metres of cable, POE and Ethernet can be extended for considerable distances with no loss of network bandwidth. The limit depends on which POE Source is used and on how much power the IP camera or other device requires:

POE Source	POWER REQUIRED BY IP CAMERA OR IP DEVICE				
	No POE	6W	12W	18W	25W
POE Switch	800m	400m	200m	-	-
OUTSOURCE	1150m	700m	400m	-	-
OUTSOURCE Plus	1150m	700m	500m	350m	200m

These are strict limits for installations using regular 24AWG Cat 5e cable. Distance is limited by the peak power required by the device; its POE "power class" is not used. Use of OUTSOURCE or OUTSOURCE Plus injectors is recommended for extension beyond a distance of 300 metres.

For example, installing a 5 watt IP camera 500 metres (1640 ft) from its power source would require four OUTREACH Max XT units and an OUTSOURCE injector. The table shows that OUTSOURCE can deliver 6 watts at 700 metres, so this is safely within the maximum range that is permitted.

"No POE" distances are for Ethernet extension only, and the last device in the chain must be an OUTREACH Lite XT. See the OUTREACH Lite XT datasheet for details, or consult Veracity's application notes for more in-depth information on long-range Ethernet extension.

# TECHNICAL SPECIFICATION

# OUTREACH™ MAX XT / LITE XT™

POWER		
Power consumption	1.3 watts via POE	
FORWARDED POE POWER	Up to 70 watts depending on standard Maximum current 0.7 amps on data pairs Maximum current 1.5 amps on spare pairs	
POE STANDARDS	IEEE 802.3af POE IEEE 802.3at POE Plus (2-event signature) Custom POE (including "always-on 48V" and "4-pair")	
ETHERNET INTERFACE	Two independently auto-configuring 10/100 ports (10BASE-T/100BASE-TX, half/full duplex) Patch or crossover cables supported	
LEDS		
Status indicators	Green LED - shows POE Power good Yellow LED - shows Ethernet link/activity	
PHYSICAL/ENVIRONMENTAL		
Dimensions	L 210mm W 50mm H 31mm	
Mounting	2/4 Bolt 7mm mounting holes. On 50/60mm centres	
Operating temperature	-40°C to 60°C [-40°F to 140°F]	
Relative humidity	Up to 85%, non-condensing	
Compliance	CE, FCC, RoHS	
PRODUCT CODES		
VOR-ORM-XT	OUTREACH Max XT	Outdoor Ethernet and POE extender
VOR-ORL-XT	OUTREACH Lite XT	Outdoor Ethernet extender
VOR-ORM	OUTREACH Max	Ethernet and POE extender
VOR-ORL	OUTREACH Lite	Ethernet extender
VOR-OS	OUTSOURCE	POE injector
VOR-OSP	OUTSOURCE Plus	POE Plus injector



**Americas & Asia Sales :**  
Veracity USA Inc.  
65 Harristown Road  
Glen Rock  
NJ 07452  
USA

Tel: 1-800-679-1590  
Fax: 1-800-679-0714  
www.veracityglobal.com  
sales@veracityusa.com

**EMEA Sales :**  
Veracity UK Ltd  
Prestwick International Aerospace Park  
4 Dow Road  
Prestwick  
KA9 2TU  
UK  
Tel +44 (0) 1292 264967  
Fax +44 (0) 845 528 1081  
www.veracityglobal.com  
sales@veracityuk.com