

LONG RANGE ETHERNET AND POE
LONGSPAN™
 DUO



LONGSPAN DUO is a robust network two port adapter for harsh environments like subways and bridges.

Connect and power two IP cameras at high bandwidth and long distances over Cat 6

LONGSPAN DUO delivers POE to two devices
over a single regular network cable at
long distances

- | Long range point-to-point Ethernet over normal network cable
- | Full-performance 100Base-T with POE at over 820 metres
- | Provides two POE ports to connect two 12W devices over one cable
- | Optional local PSU can deliver 30W per port at device end
- | Ruggedised for high performance over wide temperature range
- | Compatible with LONGSPAN Base units
- | Fully automatic, simple to install and maintenance-free



LONGSPAN DUO is a point-to-point Ethernet extender - ideal for spanning long distances or cable runs.

LONGSPAN Duo connections provide full-speed, long-range Ethernet with POE

LONGSPAN devices deliver unrestricted 100Base-T with 802.3af and 802.3at POE at up to eight times the distance of normal Ethernet connections - ideal for external IP camera installations.

Unrivalled range and power

IP cameras can demand peak bandwidth several times their average data rate, especially in low-light or with high scene activity. LONGSPAN Duo is designed to work with any LONGSPAN base unit to provide high-speed connections (with POE) for two IP cameras at up to 820 metres (2,690 feet) over a single network cable, supporting the full 200Mbps required (100Mbps up plus 100Mbps down) for 100Base-T Ethernet.

Flexible Power Options

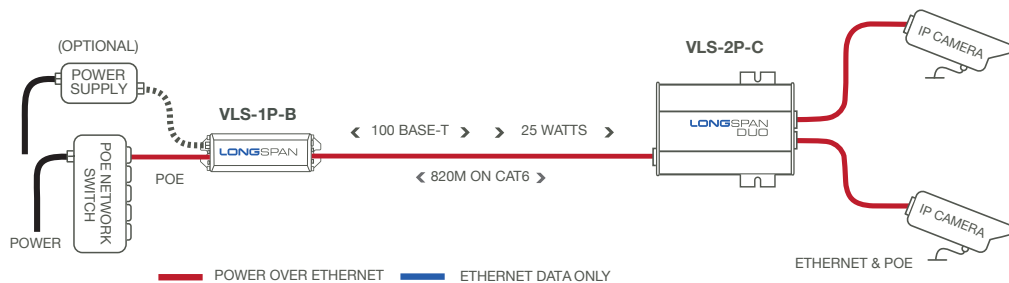
LONGSPAN Duo is compatible with any other LONGSPAN device and would normally be used with a LONGSPAN Base unit or LONGSPAN Base 8 unit. Both supply POE over the network cable, providing a total LONGSPAN Duo POE output budget of up to 25W at 600m and 15W at 800m. Optionally, a LONGSPAN Lite (no POE) can be used at the base end and a local PSU can power the Duo unit for a maximum POE output budget of 60W (30W per port).

Upgrade legacy UTP cable

LONGSPAN and LONGSPAN Duo combinations also support 1-pair and 2-pair connections at even longer distances with reduced 10Base-T bandwidth. This allows analogue camera installations using UTP cable to be replaced with IP cameras, so no need to replace the legacy cabling.

LONGSPAN automatically adapts to the cable pairs available, and delivers the same unrestricted 10 or 100Mbps full-duplex network connection, assuring predictable IP video quality.

POE OVER CAT 5e or Cat 6 Application Diagram



LONGSPAN adapters deliver full-bandwidth Ethernet and optional full-power POE over greatly extended distances of regular network cable or UTP.

Range is for typical 24AWG Cat 5e or 23AWG Cat 6, 4-pair UTP. For other cables types, or any installations over 600 metres length, consult Veracity for recommendations or test on site.

Distances may be increased by connecting multiple links in series. Data rate at full range stated :
 100Base-T = 200Mbps,
 10Base-T = 20Mbps



SAFEVIEW,™ smart LED display provides instant information and link status

A smart LED display utilising Veracity's SAFEVIEW™ technology provides instant confirmation of link status, power availability, and diagnostic information, from either end of the cable.

Designed for installers

LONGSPAN devices self-configure for the best performance every time they are connected. No user setup, no DIP switch settings, and no system pairings are required.

Veracity's SAFEVIEW™ technology provides instant visible confirmation of LONGSPAN Duo's status, power and diagnostics. This information is also available at the base end, when delivering POE from LONGSPAN Base units.

Multi-Channel Configurations

A single-channel LONGSPAN Base unit at the base end may be used with single, dual or quad LONGSPAN Camera units at the camera end, to achieve 1, 2 or 4 IP channels at long distance. Up to 24 single-channel LONGSPAN Base units may be rack mounted in the optional 1U rack mount plate and may be powered by any of the Veracity 57V DC power supply options, including 1U PSU solutions which fit behind the LONGSPANS in the same 1U space for maximum channel density.

Power and Data Ranges

The first table below indicates the total data range for three typical cable types. The second table indicates the power available at each distance for Cat5e and Cat6 cables. The quoted power available is the total power budget across both LONGSPAN Duo ports.

Maximum 30W POE output per port can be achieved by using a local Veracity power supply for the LONGSPAN Duo and a non-POE LONGSPAN Lite at the base end.

LONGSPAN Data Range

RATE	CAT 6	CAT 5e	1 - PAIR (typical)
100 Base-T	820m (2690ft)	690m (2250ft)	300m (1000ft)
10 Base-T	1050m (3500ft)	950m (3100ft)	900m (3000ft)

LONGSPAN POE Range

CAMERA POWER	802.3af POE Switch		802.3at POE Plus Switch		Veracity Power Supply	
	CAT 6	CAT 5e	CAT 6	CAT 5e	CAT 6	CAT 5e
(TOTAL)						
5 WATTS	1050m	950m	1050m	950m	1050m	950m
10 WATTS	600m	450m	1050m	950m	1050m	950m
15 WATTS	n/a	n/a	700m	550m	1000m	800m
20 WATTS	n/a	n/a	500m	350m	750m	600m
25 WATTS	n/a	n/a	n/a	n/a	600m	450m

TECHNICAL SPECIFICATION

LONGSPAN™
DUO

POWER	Power consumption POE in and out Optional DC power in	0.9W - 1.8W depending on POE load IEEE 802.3af (POE) or IEEE 802.3at (POE Plus) - 2 ports Detachable screw terminal for optional local Veracity 57V supply
LONGSPAN INTERFACE	Connector Cable Rate	RJ45 Cat 6, Cat 5e, Cat 3, other 1/2/4-pair UTP Patch wiring recommended, other wiring auto-corrected 200Mbit/s up to 600 metres [2,000ft] (CAT 6) 20Mbit/s up to 1000 metres [3300ft] (CAT 6), auto-adapts
ETHERNET INTERFACE	Connectors Cable Rate	RJ45 Patch or crossover, auto detected 100Base-TX or 10Base-T, full-duplex with auto-negotiation
LED INDICATORS	Ethernet LONGSPAN interface POE	Link/activity, power good Link/activity, rate Power available (5/10/15/20/25/30/40/50 watts) POE and link status (green/amber), diagnostic codes (red)
PHYSICAL/ENVIRONMENTAL	Dimensions Weight Operating temperature Relative humidity Compliance	L 103mm, W 75mm H 22mm 141g [5oz], Clips 4g [0.14oz] -10°C to 50°C [-40°F to 158°F] 85% non-condensing FCC, CE, RoHS, BS EN 50121-4 (rail + metro)
PRODUCT CODES	VLS-2P-C VLS-4P-C VLS-1P-B VLS-1N-L VPSU-57V-800 VPSU-57V-1500	LONGSPAN Camera Duo , dual-port, long range Ethernet and POE adaptor. LONGSPAN Camera Quad , four-port, long range Ethernet and POE adaptor. LONGSPAN Base , single-port, long range Ethernet and POE adaptor. LONGSPAN Lite , single-port, long range Ethernet adaptor (no POE). (2 required per link) 57V DC 800mA power supply for POE models. 57V DC 1500mA power supply for POE models. Cables for power supplies required with Country specification - UK - EU - US <i>For a full range of solutions, power supplies and power configurations find out more from sales at Veracity.</i>



LONGSPAN Camera Quad is also available as a four port POE adapter with POE out, extended POE in, and LED SAFEVIEW™ display, for camera side (remote device) installation.



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