Four-port high power POE with extreme distance Ethernet for IP Cameras

LONGSPAN Max Quad integrates a four-port 90W POE switch with a long-distance network extender for Cat5e or Cat6 cable.

- Quad LONGSPAN camera device with 802.3bt POE
- Long range point-to-point Ethernet over Cat5 or Cat6 cable
- Unrestricted 100Base-TX with POE at over 820 metres
- Delivers power for 4 x 13W IP cameras up to 330m from Base device
- With local power, can deliver POE for 71W IP cameras at 820 metres
- Ruggedised for high performance over a wide temperature range
- Smart POE power and diagnostic display for reliable installation
- Fully automatic, simple to install and maintenance-free
Unrivalled range
LONGSPAN products are designed to connect IP cameras at ranges of up to 820 metres (with Cat6 cable), supporting the 200Mbps aggregate bandwidth required for full-duplex 100Base-TX Ethernet. LONGSPAN devices therefore ensure perfect image quality at all times, even at the longest cable ranges. See the LONGSPAN Max Data Range Table for details.

LONGSPAN Max Quad
A LONGSPAN Max Base device is used with a LONGSPAN Max Quad device which has an integrated 4-port POE switch to achieve a LONGSPAN link for up to four POE IP cameras (see diagram below).

Whilst LONGSPAN Max devices achieve the same data range as a standard LONGSPAN unit (820 metres), higher power POE delivery is only possible to just over 600 metres. Max Quad can also be used with standard LONGSPAN Base units depending on the power level required and transmission distance. LONGSPAN Max Quad should be used for all

Hi-POE Over Cat5e or Cat6 Application Diagram

LONGSPAN Max Base and Max Quad Camera adaptors deliver full bandwidth Ethernet up to 820 metres. The Max Base device can output the maximum POE permitted by the 802.3bt standard, allowing the Max Quad to power 4 x 13W cameras at up to 330 metres. POE power levels drop quickly with distance. For higher power delivery to the IP cameras, a local PSU may be used to power the LONGSPAN Max Camera Quad device, as shown in the second diagram on the next page. Note that the base device is replaced with a LONGSPAN Lite as no POE is transmitted over the LONGSPAN Link.
multi-camera-end connections as this model has superseded the original standard LONGSPAN Quad device.

Local power option
As shown in the diagram above, LONGSPAN Max Quad Camera devices can be locally-powered to deliver the maximum POE (71W) to the IP camera or other type of POE-powered device, irrespective of LONGSPAN link distance. This can be ideal for external IP PTZ cameras. In this configuration, the LONGSPAN link could be 820 metres and LONGSPAN Max Base would be replaced with LONGSPAN Lite as POE transmission over the link is not required. A single-channel version, LONGSPAN Max Camera, is also available for the camera end with a single 802.3bt compatible POE port, allowing the connection of one high power IP device over a LONGSPAN link.

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™ smart LED display provides instant, visible confirmation of link status, power availability, and useful diagnostic information, from each device at either end of the cable.

POE system design
Power budget calculations can be complex for larger POE transmission systems. Please refer to the LONGSPAN Application Notes or contact our Veracity support team for further information.
POWER

Device power consumption
POE in (LONGSPAN Link) 2.1W under minimum load, 3.2W under maximum load
POE out
DC power in
IEEE 802.3bt input
Four POE output ports - all IEEE 802.3bt
Detachable screw terminal for optional local Veracity POE power supply

LONGSPAN INTERFACE

Connector RJ45
Cable Cat6, Cat5e, Patch wiring recommended, other wiring auto-corrected
Rate 200Mbps (100Mbps full duplex) up to 820 metres [2,690ft] (Cat6)

ETHERNET INTERFACE

Connector Four x RJ45
Cable Cat6, Cat5e, Patch or crossover, auto detected
Rate 100Base-TX full-duplex with auto-negotiation

LED INDICATORS

LONGSPAN link RJ45
POE Yellow : Link/activity, Green: 10/100Mbps
Power available (5/10/20/30/40/50/60/70 watts) plus diagnostic codes
Above 70W with local power, 70W is indicated
LED Status: Blue - On and available
LED Status: Purple - Approaching available power limit
LED Status: Red - Power limit exceeded

Ethernet & POE out
RU45 Yellow: Link / Activity
RU45 Green: Power good

PHYSICAL/ENVIRONMENTAL

Dimensions L 113mm (inc. brackets), W 75mm H 22mm [L 4.4in, W 2.9in, H 0.9in]
Weight 161g [5.7oz]
Operating temperature -40°C to 70°C [-40°F to 158°F]
-40°C to 50°C [-40°F to 122°F] when power load > 80W
Relative humidity 85% non-condensing
Compliance FCC, CE, RoHS, BS EN 50121-4 (rail + metro)

PRODUCT CODES

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VLS-LSM-C4</td>
<td>LONGSPAN Max Quad Camera device, with high power POE</td>
</tr>
<tr>
<td>VLS-LSM-B</td>
<td>LONGSPAN Max Base device, with high power POE</td>
</tr>
<tr>
<td>VLS-LSM-C</td>
<td>LONGSPAN Max Camera device, with high power POE</td>
</tr>
<tr>
<td>VLS-1P-B</td>
<td>LONGSPAN Base device with POE for base side</td>
</tr>
<tr>
<td>VLS-1P-C</td>
<td>LONGSPAN Camera device with POE for camera side</td>
</tr>
<tr>
<td>VLS-LS-B8</td>
<td>LONGSPAN Base 8 device with 8 integrated LONGSPAN base channels</td>
</tr>
<tr>
<td>VLS-1N-L</td>
<td>LONGSPAN Lite device without POE</td>
</tr>
<tr>
<td>VPSU-12V</td>
<td>12V DC power supply for LONGSPAN Lite device</td>
</tr>
<tr>
<td>VPSU-57V-800</td>
<td>57V DC 800mA power supply</td>
</tr>
<tr>
<td>VPSU-57V-1500</td>
<td>57V DC 1500mA power supply</td>
</tr>
<tr>
<td>VPSU-POE-100-UK/EU/US</td>
<td>100W 57V DC power supply with power cable for UK, EU or US</td>
</tr>
<tr>
<td>VPSU-POE-240-UK/EU/US</td>
<td>240W 56V DC power supply with power cable for UK, EU or US</td>
</tr>
<tr>
<td>VPSU-1U-57V-UK/EU/US</td>
<td>1U rear-mounted 400W PSU for multi-channel installations &amp; cable for UK, EU or US</td>
</tr>
<tr>
<td>VLS-1U</td>
<td>1U front panel for mounting 24 LONGSPAN devices</td>
</tr>
<tr>
<td>VPSU-TRAY-ASSY</td>
<td>1U tray for mounting power supplies and for use with VLS 1U</td>
</tr>
</tbody>
</table>

For a full range of solutions, power supplies & power configurations contact sales at Veracity.