



HIGHWIRE allows IP network cameras to communicate over existing coax

HIGHWIRE supports mega-pixel cameras, uses legacy cables and cuts your installation costs. It is highly reliable and very easy to install.

- Simple retro-fit of IP cameras in place of analogue
- Full 100 Base-T Ethernet performance
- Supports multiple IP cameras (with switch)
- Fully automatic no configuration required
- Up to 300m on RG59, 500m on RG11
- Fully automatic no configuration required
- Powered by legacy PSU at camera end
- Rack mount option for control room end



High-Speed Ethernet over legacy video cable

HIGHWIRE units are used in pairs and installing them is extremely simple and fast. Just plug them in.

Why HIGHWIRE cuts installation costs

Uses legacy analogue video cabling
No IP address or other setup required
Supports mega-pixel cameras
Supports any network device - fully
transparent 100Base-T Ethernet
Fast install - less time on site
Full-speed over 300m of RG-59
Compact - fits inside camera housings
Flexible low voltage input - can use
old camera supply
Rack-mount option for control room

Signal Converter

HIGHWIRE turns any existing analogue video cable (coax) into a high-speed Ethernet connection. This allows a networked IP camera to replace an analogue CCTV camera, without installation of any new cabling. Thus the investment in the original cabling (usually around 30% of any system installation cost) can be retained and exploited for new-generation networked IP camera systems. HIGHWIRE is especially suited to

mega-pixel IP camera applications or even multiple IP cameras as it supports high data rates.

Simple Installation

HIGHWIREs are used in pairs and installing them is extremely simple.

One HIGHWIRE unit is connected to each end of the co-axial cable with the BNC connectors, thus providing a straight RJ45 to RJ45 network connection from end to end across the existing cabling.

A HIGHWIRE to HIGHWIRE connection instantly operates as a full-duplex 100Base-T Ethernet connection and is completely transparent to any network device. HIGHWIRE has no MAC address or IP address and requires no set-up at all.

Application

In the application shown above, a high-resolution mega-pixel IP camera replaces a standard analogue CCTV video camera. The IP camera's standard Ethernet TCP/IP connection is linked to a HIGHWIRE device with a short CAT 5 patch cable (straight through or cross-over). Both the camera and the HIGHWIRE are powered from the same power supply, and both may be fitted inside a standard external camera housing. The HIGHWIRE link runs across the existing installed 75ohm co-axial video cable, and the rest of the network is connected at the other end (normally the control or equipment room). One, several, or many such links may feed into the network to an NVR. As the network link is full speed and fully - transparent, the IP camera appears on the network as a completely normal IP connection.

The NVR will "see" the IP address of the IP camera as if it were a normal direct Cat 5 connection.

Universal Application

Although designed for IP video, the HIGHWIRE connection is a universal 100Base-T network link that can be

ETHERNET OVER COAX APPLICATION DIAGRAM

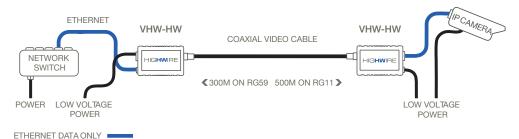


Diagram 1.

A pair of HIGHWIRE adapters deliver full-bandwidth Ethernet over existing coaxial cabling without requiring any settings or other configuration.





used for any application. Any legacy coaxial cable can be used, or new coaxial cable can be installed, to deliver an extended network that's a rugged, low-cost alternative to fibre. Although designed for 75ohm cable, HIGHWIRE can operate over 50ohm cable with full performance with only a slight reduction in the maximum distance attainable.

HIGHWIRE Wall Mount Bracket

This simple metal bracket provides a fast, efficient method of fixing HIGHWIRE units to walls or other flat surfaces, including mounting inside enclosures

HIGHWIRE DIN-Rail Mount

The HIGHWIRE wall mount bracket is also available with a DIN rail mount clip for fitting to standard DIN rails.

HIGHWIRE Powerstar Quad or Duo

HIGHWIRE Powerstar QUAD shown in the diagram below integrates
Veracity's HIGHWIRE Ethernet over

coaxial cable technology with a four-port POE switch. This means that up to four IP cameras can be installed in place of one old analogue video camera. Legacy coax cabling can be used as the network connection, and an existing 12V DC or 24V AC supply can be converted into universal Power over Ethernet (POE) for the new IP cameras. If only two-ports are needed, use HIGHWIRE Powerstar Duo.

Separate HIGHWIRE Powerstar Quad and HIGHWIRE Powerstar Duo datasheets are available.

Applications

HIGHWIRE Powerstar Duo or Quad can be used to expand the numbers of cameras in an installation without running new cables. Whilst most commonly used with IP security cameras, HIGHWIRE Powerstar Duo or Quad can be used for any networking application such as VOIP, IP access control, wireless access points, or any combination of these.

HIGHWIRE Rack

The HIGHWIRE accessory range includes a 19" 1U adaptor plate which allows 8 standard HIGHWIRE units to be neatly rack-mounted in a control room. This is useful when installing many HIGHWIRE channels together. There are also HIGHWIRE Powerstar Base 4 and Base 8 units available, see separate datasheets.

HIGHWIRE with POE

For any applications requiring the transmission of POE-over-coax™, please refer to Veracity's HIGHWIRE Powerstar datasheets.

Power Supplies

There are many Veracity Power Supply's options available that are specifically tailored for a variety of combinations of Ethernet over coax or Power over coax applications.

All datasheets for products are available online on the Veracity website www.veracityglobal.com or contact sales@veracityuk.com

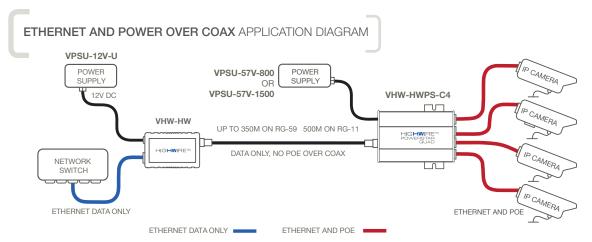


Diagram 2.

A single HIGHWIRE at the switch end, combined with a HIGHWIRE Powerstar

Quad provides Ethernet connectivity for up to four POE IP devices (typically IP cameras)

over existing coaxial cabling.

TECHNICAL SPECIFICATION



HIGHWIRE INTERFACE

Connector type BNC 75ohm

Cable type 75ohm (RG59 or similar)

Range Up to 300m [1100ft] on RG59, 500m on RG11 [1600ft] at full rate

Bandwith 200Mbps (total up + down)

ETHERNET INTERFACE

Connector type RJ45

Cable type Straight through or cross-over, auto detected Rate 100Base-T, full duplex with auto negotiation

LED INDICATORS

Green - Constant Power OK, full HIGHWIRE data link
Green - Blink Power OK, no HIGHWIRE link

Green – Off No power

Amber – Constant Ethernet link On

Amber – Blink Network traffic

POWER

Unit power 1.5 watts

Connector type Screw terminals with detachable plug

Power supply type IEC Class II isolated only

Operating voltage 8-57V DC or 20-28V AC (type and polarity auto detected)

Supply current 120mA (12V), 60mA (24V)

PHYSICAL/ENVIRONMENTAL

Dimensions L 104mm (83mm excluding connectors) W 54mm H 24mm

Weight 110g [3.8oz]

Operating temperature -10°C to 50°C [14°F to 122°F]

Relative humidity 85% non-condensing

Grounding Chassis should be grounded and is connected to the BNC shield.

Compliance CE, FCC, RoHS

PRODUCT CODES

VHW-HW HIGHWIRE Ethernet over video cable converter

VHW-HW PS-C2 Ethernet over coax camera unit with integrated 2-port POE switch
VHW-HW PS-C4 Ethernet over coax camera unit with integrated 4-port POE switch

VHW-WMB Wall mounting bracket (1 HIGHWIRE unit)

VHW-DMB DIN rail mounting bracket kit

VHW-1U Rackmount kit (bracket for 8 units in 1U high)

VHW-RMPSU-UK /EU/US Power supply for rackmount kit (8 units) with UK or EU or US cable

VPSU-12V-U 12V DC power supply (normally not required)

VPSU-57V-800 57V DC 800mA PSU Optional 40 watt PSU for Quad /Duo VPSU-57V-1500 57V DC 1500mA PSU Optional 78 watt PSU for Quad /Duo



Americas Sales

Veracity USA Inc. 17000 Preston Road

Suite 120 Dallas TX 75248 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

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