

2 PORT ETHERNET & POE OVER COAX


HIGHWIRE®
POWERSTAR
DUO

Connect two IP cameras with HIGHWIRE Powerstar Duo® over an existing coax cable

HIGHWIRE Powerstar Duo® uses existing coax cabling as a reliable Ethernet network connection and is very easy to use and fast to install.



- | Re-uses existing coax cable for 2 IP cameras or devices
- | Integrated 2-port POE switch (POE Plus with local power option)
- | Eliminates separate power cabling with POE-over-Coax™
- | Compatible with all HIGHWIRE Powerstar Base units (1, 4 & 8ch)
- | Instantly check connection and power level with SafeView™
- | Completely automatic connection, no configuration required
- | 100Base-TX performance over 300m of RG59 (500m on RG11)



HIGHWIRE Powerstar Duo® incorporates a two-port POE switch for IP cameras

HIGHWIRE Powerstar Duo makes the most of your legacy cabling and multiplies its capability by connecting two IP cameras or other network devices.

Ethernet Over Coax

HIGHWIRE Powerstar Duo's unique ultra low-power design and efficient power delivery enables long range Ethernet over coax. It works even over the lowest grade cable, such as the high-resistance, copper-clad steel (CCS) types found in many legacy installations. This means that legacy coax upgrades can be planned with confidence, while a quick check of the SAFEVIEW™ power level display reaffirms that the device connections will continue to be reliable, whatever the cable used.

For predictable network operation with no restrictions, HIGHWIRE technology

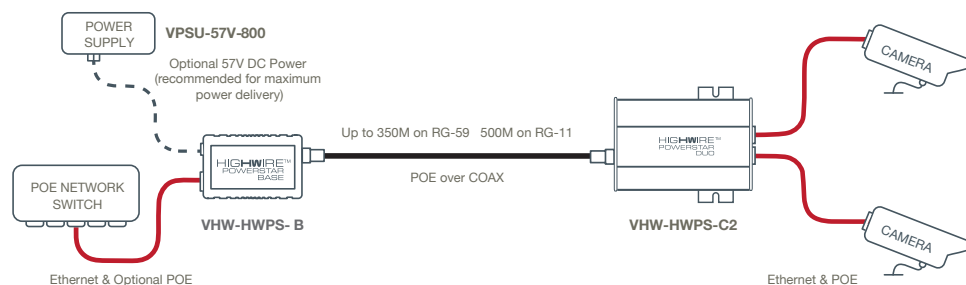
delivers a full 200Mbit/s of bandwidth at 300m (1000 ft) of RG-59 or 500m (1600 ft) of RG-11 coax. For full information on POE-over-Coax™ distances achievable, please refer to the Range Table in the HIGHWIRE Powerstar datasheet or on the Veracity website. For POE power budget and power supply options, see the POE Power Budget Table opposite.

HIGHWIRE Powerstar DUO

The DUO variant of HIGHWIRE is designed for the camera end of the coax and, with an integrated two-port POE switch, enables connection of two IP cameras over a single coax. With no need to configure IP

addresses, set DIP switches, or make awkward measurements and calculations, installing HIGHWIRE Powerstar Duo is simple. The Base end of the coax is driven by single-channel, 4-channel or 8-channel HIGHWIRE Powerstar Base unit. The DUO unit can be powered either by POE over coax, delivering a maximum total POE power budget of 25 watts, or by one of the optional local PSUs, delivering 40 or 100 watts. HIGHWIRE Powerstar Duo features Veracity's unique SAFEVIEW™ display, to provide IP camera installers with an instant and very easy-to-understand confirmation of correct operation from either end of the cable.

POE OVER COAX Application Diagram



The diagram shows POE power delivery over coax from the Base end. The Powerstar Base unit may be powered by a POE or POE Plus switch, or for maximum power delivery

over coax, by Veracity's 57V DC PSU. See POE Power Budget Table for POE power outputs.

HIGHWIRE Powerstar Duo® allows one analogue camera to be replaced with two IP cameras

POE over Coax or Local Power

In the simplest implementation (shown below left) the BASE unit receives power from a standard POE switch or Veracity's 57V DC PSU and transmits POE over the coax. The DUO unit receives this power and delivers up to 25 watts shared between two IP cameras. No external power cabling is required, and all detection and setup occurs automatically. For higher POE power budgets, an optional Veracity 57V DC PSU may be used to power the DUO locally at the camera end (shown below right) delivering 40 watts or 100 watts depending on the Veracity PSU model.

See POE budget table for details.

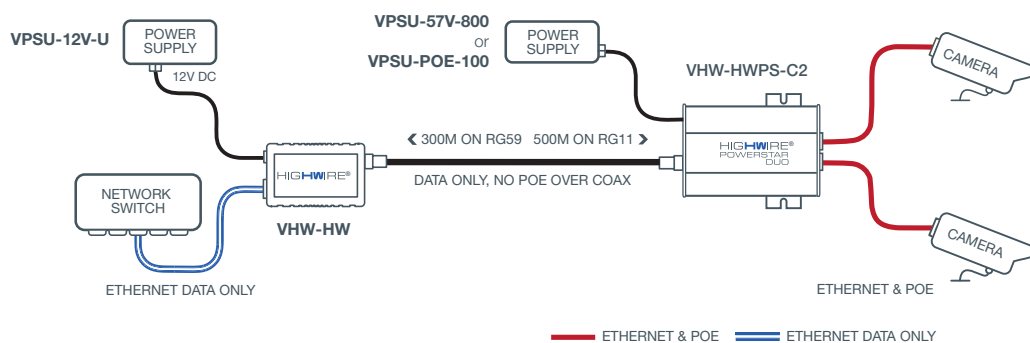
POE POWER BUDGET TABLE

POE AVAILABLE FROM HIGHWIRE POWERSTAR DUO		
PSU LOCATION	POWER SUPPLY	POE POWER BUDGET (To IP Cameras)
Base End	POE Switch	10W
Base End	POE Plus Switch	20W
Base End	VPSU-57V-800	25W
Camera End	VPSU-57V-800	40W
Camera End	VPSU-POE-100	100W

The table shows the total POE power budget available from the two ports on the HIGHWIRE Powerstar Duo. Note that the maximum power available from any one port is 25W.

POWER SUPPLY TO DUO

Application Diagram



The diagram shows power injection at the Camera end, using a PSU for HIGHWIRE Powerstar Duo, with no power delivery

over coax. This option allows the maximum POE power output.

TECHNICAL SPECIFICATION

HIGHWIRE®
POWERSTAR
DUO

POWER		
Input connector	Detachable screw terminal	
Power input	POE OR 57V DC	
Power consumption	3W - 8W depending on POE load	
POE STANDARDS		
IEEE 802.3af and IEEE 802.3at compliant		
POE POWER OUTPUT		
Between 10W and 100W depending on power source (see table) managed across 2 ports. Max 25 watts per port (POE Plus)		
HIGHWIRE INTERFACE		
Connector type	BNC 75ohm	
Cable type	75ohm coax cable (RG59, RG6, RG11 or similar)	
Range	Up to 300m on RG59, 350m on RG6, 500m on RG11, all at full rate	
Bandwidth	200Mbps (total up + down)	
ETHERNET INTERFACE		
Connector type	RJ45 x 2, unmanaged 10/100 switch	
Rates	10Base-T or 100Base-TX and full duplex, auto configuring	
Cable type	Straight through or cross-over Cat5, Cat5e or Cat6 patch	
LED INDICATORS		
RJ45 Yellow	Network link and activity	
RJ45 Green	POE status (on/off)	
Coax Status	Coax link, Base network link, coax power (POE)	
POE Power	Power budget (in steps of 5W)	
PHYSICAL/ENVIRONMENTAL		
Dimensions	L 132mm (inc. BNC) W 75mm H 22mm (W 94.6mm with wall mount lugs)	
Mounting	4mm mounting holes on 86.1mm centres	
Weight	172g [6.1oz] (179g with wall mount brackets) [6.3oz]	
Operating temperature	-10°C to 50°C [14°F to 122°F]	
Relative humidity	85% non-condensing	
Compliance	CE, FCC, RoHS, UKCA, UL	
PRODUCT CODES		
VHW-HWPS-C2	HIGHWIRE Powerstar Duo	Ethernet over coax camera unit with integrated 2-port POE switch
VHW-HWPS-C4	HIGHWIRE Powerstar Quad	Ethernet over coax camera unit with integrated 4-port POE switch
VHW-HWPS-B	HIGHWIRE Powerstar Base	Single-port Ethernet over coax base unit
VHW-HWPS-B4	HIGHWIRE Powerstar Base 4	Four-port Ethernet over coax base unit
VHW-HWPS-B8	HIGHWIRE Powerstar Base 8	Eight-port Ethernet over coax base unit
VPSU-57V-800	57V DC 800mA PSU	Optional 40 watt PSU for Quad /Duo
VPSU-POE-100-UK/EU/US	100W 57V DC Power Supply	With power cable for UK, EU or US
VHW-HW	HIGHWIRE	Ethernet over coax cable adaptor
VPSU-12V-U	12V DC Power Supply	PSU for standard HIGHWIRE VHW-HW



HIGHWIRE Powerstar Quad is also available with 4-port POE switch

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Surge Protection

All Veracity products have been independently tested to verify their resilience to the stringent immunity levels of international standards. Users should note that no electronic equipment can be guaranteed to be completely protected at levels beyond the defined standard; therefore product warranty cannot include damage to products which has been caused by surges exceeding those of the standards specified, for example lightning strike activity.

It is the user's responsibility to implement relevant surge protection measures, as appropriate to the installation. This may include the fitting of additional surge protection devices where required.



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