Veracity VHW-HW01

Veracity VHW-HW01 Single Ethernet Over Coax Device User Manual

Model: VHW-HW01 (VHW-HW Series)

1. Introduction

This manual provides comprehensive instructions for the installation, operation, and maintenance of the Veracity VHW-HW01 Single Ethernet Over Coax Device. The VHW-HW01 is designed to extend Ethernet network connections over existing coaxial cable infrastructure, providing a reliable and cost-effective solution for long-distance data transmission without the need for new cabling.

The device facilitates high-speed Ethernet communication, making it ideal for applications such as IP camera installations, network extensions in older buildings, or any scenario where running new Ethernet cable is impractical.

Figure 1: Front view of the Veracity VHW-HW01 device, showing the Ethernet port, power input, and coaxial connector.

2. Key Features

- **Ethernet Over Coax:** Extends 100Mbps Ethernet connections over standard coaxial cable.
- **High Bandwidth:** Supports up to 100 Megabits Per Second (Mbps) data transfer rate.
- **Simple Installation:** Plug-and-play operation with minimal configuration required.
- **Compact Design:** Small form factor for easy deployment in various environments.
- **Reliable Connectivity:** Provides stable and secure data transmission over long distances.

3. Package Contents

Please verify that all items are present and in good condition upon opening the package. If any items are missing or damaged, please contact your supplier.

- Veracity VHW-HW01 Single Ethernet Over Coax Device (1 unit)
- Power Adapter (may be sold separately or included depending on region/kit)
- Quick Start Guide / User Manual (this document)

4. Setup and Installation

The VHW-HW01 operates in pairs, with one unit at each end of the coaxial cable run. Ensure you have two units for a complete link (this product listing is for a single unit).

1. **Identify Connection Points:** Determine the location for each VHW-HW01 unit. One unit will connect to your network device (e.g., router, switch, NVR) and the other to the remote Ethernet device (e.g., IP camera, PC).
2. **Connect Coaxial Cable:** Connect a standard coaxial cable (e.g., RG59, RG6, RG11) to the BNC connector on the VHW-HW01 unit. Ensure the connection is secure.
3. **Connect Ethernet Cable:** Connect a standard RJ45 Ethernet cable from your network device to the Ethernet port on the VHW-HW01 unit.
4. **Apply Power:** Connect the appropriate 12V DC or 24V AC power adapter (if not already integrated) to the power input terminals on the VHW-HW01. Observe the polarity for DC power.
5. **Verify Link Status:** Once power is applied to both units and the coaxial cable is connected, observe the LED indicators on the device. A solid link light indicates a successful coaxial connection, and Ethernet activity lights will show data flow.

Figure 2: Side view of the Veracity VHW-HW01, highlighting the power input terminals and Ethernet port.

5. Operation

The Veracity VHW-HW01 is a transparent Ethernet extender. Once properly installed and powered, it operates automatically without requiring any user configuration. Data packets are seamlessly transmitted over the coaxial cable, appearing as a direct Ethernet connection to connected devices.

- **Power On:** Ensure both VHW-HW01 units are powered on.
- **Link Establishment:** The devices will automatically establish a high-speed Ethernet link over the coaxial cable. This is indicated by the link status LEDs.
- **Data Transmission:** Network traffic from the connected Ethernet devices will flow through the VHW-HW01 units over the coaxial cable.

6. Maintenance

The Veracity VHW-HW01 is designed for maintenance-free operation. However, following these guidelines can help ensure its longevity and reliable performance:

- **Cleaning:** Keep the device clean and free from dust. Use a soft, dry cloth for cleaning. Do not use liquid cleaners or aerosols.
- **Environment:** Operate the device within its specified environmental conditions (temperature, humidity). Avoid exposing it to extreme temperatures, direct sunlight, or excessive moisture.
- **Cable Connections:** Periodically check all cable connections (coaxial, Ethernet, power) to ensure they are secure and free from damage.
- **Ventilation:** Ensure adequate airflow around the device to prevent overheating, although passive cooling is typically sufficient for this low-power device.

7. Troubleshooting

If you encounter issues with your VHW-HW01 device, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No power indicator light.	No power supply, incorrect power adapter, or faulty power connection.	• Ensure the power adapter is correctly connected to the device and a live power outlet. • Verify the power adapter output matches the device's requirements (12V DC or 24V AC). • Check power cable for damage.
Coaxial link light is off or blinking.	No coaxial connection, faulty coaxial cable, or only one unit powered.	• Ensure both VHW-HW01 units are powered on. • Check that the coaxial cable is securely connected to both units. • Inspect the coaxial cable for damage or breaks. • Ensure the coaxial cable length is within the supported range.
Ethernet activity light is off.	No Ethernet connection, faulty Ethernet cable, or connected device is off.	• Verify the Ethernet cable is securely connected to the VHW-HW01 and the network device. • Ensure the connected network device (e.g., PC, NVR) is powered on and functioning correctly. • Try a different Ethernet cable.
Slow network speed.	Poor coaxial cable quality, excessive cable length, or network congestion.	• Use high-quality coaxial cable (e.g., RG6 or RG11 for longer runs). • Reduce the length of the coaxial cable if possible. • Ensure there are no excessive splices or damaged sections in the coaxial cable.

8. Specifications

Attribute	Value
Brand	Veracity
Model Number	VHW-HW
Hardware Interface	Ethernet, Coaxial (BNC)
Data Link Protocol	Ethernet
Data Transfer Rate	100 Megabits Per Second
Item Weight	3.52 ounces (approx. 100 grams)
Package Dimensions	4 x 2.1 x 0.9 inches (approx. 10.16 x 5.33 x 2.29 cm)
Manufacturer	Veracity
First Available Date	February 12, 2012

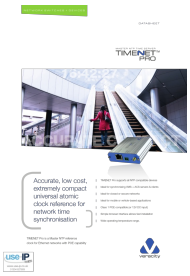
9. Warranty and Support

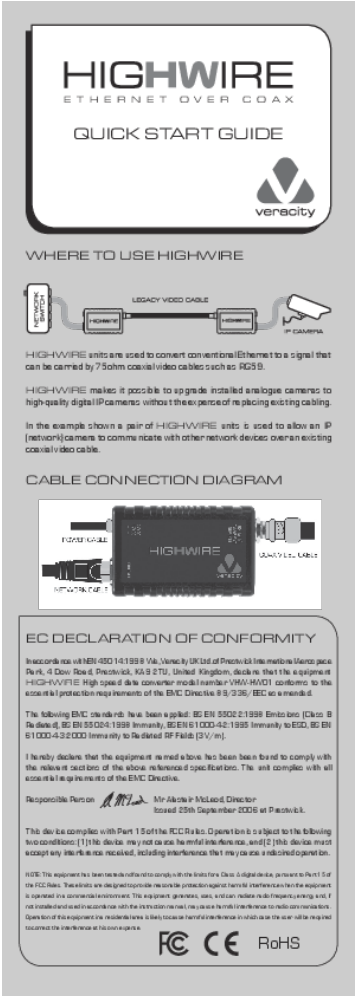
Veracity products are designed for reliability and performance. For specific warranty terms and conditions, please refer to the warranty information provided with your purchase or visit the official Veracity website.

For technical support, troubleshooting assistance beyond this manual, or inquiries regarding product returns and repairs, please contact Veracity customer support through their official channels. Ensure you have your product model number (VHW-HW01) and purchase details ready when contacting support.

Online Resources: For the latest documentation, FAQs, and software updates, please visit the official Veracity website.

Related Documents - VHW-HW01

	[Veracity HIGHWIRE Powerstar XT: Ethernet & PoE over Coax Extender Datasheet] Datasheet for the Veracity HIGHWIRE Powerstar XT, an external weatherproof device extending Ethernet and Power over Coax (PoC) for IP cameras, offering reliable connectivity and PoE+ support.
	[Veracity LONGSPAN MAX: High Power POE Ethernet Extender Datasheet] Datasheet for Veracity's LONGSPAN MAX, a Hi-POE Ethernet Extender offering maximum power and bandwidth over extreme distances for IP cameras, supporting 802.3bt standard. Features include long-range connectivity, high POE delivery, rugged design, and smart diagnostics.
	[Veracity LONGSPAN Max XT VLS-LSM-CXT Quickstart Guide for Exterior Long Range Ethernet & High Power PoE] Quickstart guide for the Veracity LONGSPAN Max XT (VLS-LSM-CXT) device, detailing installation, connectivity, mounting, and specifications for exterior long-range Ethernet and high-power PoE applications.
	[Veracity OUTREACH Quad & Quad Lite PoE Network Switches - Technical Specifications and Overview] Detailed overview and technical specifications for the Veracity OUTREACH Quad and Quad Lite PoE-powered network switches, designed for expanding IP camera and wireless access point networks.
	[Veracity TIMENET™ PRO: Accurate Network Time Synchronization] Discover the Veracity TIMENET™ PRO, a low-cost, compact, and universal atomic clock reference for accurate network time synchronization. Ideal for CCTV, security systems, and general network applications.
	[Veracity HIGHWIRE Powerstar XT: Ethernet & PoE over Coax Extender Datasheet] Datasheet for the Veracity HIGHWIRE Powerstar XT, an external weatherproof device extending Ethernet and Power over Coax (PoC) for IP cameras, offering reliable connectivity and PoE+ support.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ETHERNET OVER COAX
QUICK START GUIDE
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WHERE TO USE HIGHWIRE
LEGACY VIDEO CABLE
IP CAMERA
HIGHWIRE units are used to convert conventional Ethernet to a signal that can be carried by 75ohm coaxial video cables such as RG59.
HIGHWIRE makes it possible to upgrade installed analogue cameras to high-quality digital IP cameras without the expense of replacing existing cabling.
In the example shown a pair of HIGHWIRE units is used to allow an IP (network) camera to communicate with other network devices over an existing coaxial video cable.
CABLE CONNECTION DIAGRAM
HIGHWIRE
EC DECLARATION OF CONFORMITY
RoHS

[pdf] Quick Start Guide Guide Decleration of Conformity Diagram

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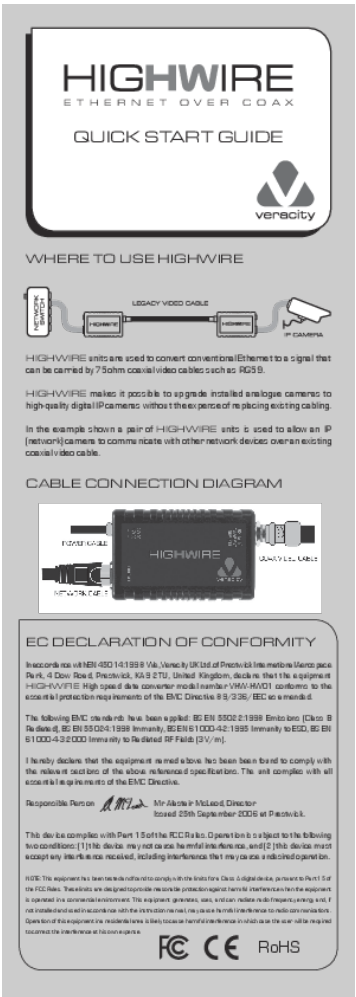
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ethernet over coax QUICK START GUIDE Where to use HIGHWIRE HIGHWIRE units are used to convert conven ... KA9 2TU, United Kingdom, declare that the equipment HIGHWIRE High speed data converter model number **VHW-HW01** conforms to the essential protection requirements of the EMC Directive 89/336/EEC as amende...

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