ATEN VE8950T

ATEN VE8950T 4K HDMI Over IP Transmitter

User Manual

1. INTRODUCTION

The ATEN VE8950T is a 4K HDMI Over IP Transmitter designed for extending 4K audio/video signals over a standard Gigabit Ethernet network. This device delivers visually lossless 4K AV signals with low latency, making it suitable for long-distance transmission in various professional environments. Its design focuses on ease of setup and operation, providing a scalable and flexible solution for multi-display 4K signal distribution.

The VE8950T offers an economical digital signage solution, addressing common challenges in AV over IP system implementation. Key benefits include limitless scalability, flexible deployment, simplified IP setup without the need for additional server PCs or software, and support for daisy-chaining to extend reach efficiently.

2. KEY FEATURES

- **4K HDMI Over IP Extender:** Functions as a transmitter for extending HDMI signals over an IP network.
- **High-Quality Video Transmission:** Supports visually lossless video up to 4K at 60 Hz (4:2:0) and 4K at 30 Hz (4:4:4).
- **Advanced Video Compression:** Utilizes ATEN's advanced video lossless compression technology for stunning video quality.
- **EDID Expert Technology:** Automatically selects optimal EDID settings for smooth power-up, high-quality display, and best video resolution across various screens.
- **Flexible AV Connections:** Extends AV connections from simple point-to-point to complex multi-point to multi-point setups via LAN, without distance limitations.

3. HARDWARE DESCRIPTION

3.1. Front Panel

Figure 1: Front Panel of the ATEN VE8950T Transmitter.

HDMI IN: Connects to the HDMI source device.

AUDIO IN: 3.5mm jack for analog audio input.

IR: 3.5mm jack for IR receiver connection.

RS-232: Serial port for control and configuration.

USB: USB Type B port for connecting to a computer or other USB host device.

3.2. Rear Panel

Figure 2: Rear Panel of the ATEN VE8950T Transmitter.

LAN: RJ-45 Ethernet port for network connection.

DC5V: Power input jack for the 5V DC power adapter.

3.3. Top Panel

Figure 3: Top Panel of the ATEN VE8950T Transmitter.

ID NUMBER Display: Three-digit LED display showing the device's ID.

+/- Buttons: Used to adjust the device ID or navigate menu options.

LINK LED: Indicates network link status.

POWER LED: Indicates power status.

4. SETUP AND INSTALLATION

Follow these steps to set up your ATEN VE8950T Transmitter:

1. **Power Off Devices:** Ensure all devices, including the HDMI source, display, and the VE8950T, are powered off before making any connections.

2. **Connect HDMI Source:** Use an HDMI cable to connect your HDMI source device (e.g., Blu-ray player, PC) to the **HDMI IN** port on the VE8950T Transmitter.

3. **Network Connection:** Connect an Ethernet cable from your Gigabit network switch to the **LAN** port on the VE8950T Transmitter. Ensure the network switch supports Gigabit speeds.

4. **Power Connection:** Connect the provided 5V DC power adapter to the **DC5V** port on the VE8950T Transmitter, then plug the adapter into a power outlet.

5. **Power On:** Power on the VE8950T Transmitter. The **POWER** LED should illuminate.

6. **Configure ID (Optional):** If using multiple transmitters and receivers, configure the unique ID for each transmitter

using the **+/-** buttons on the top panel. This ID must match the ID set on the corresponding receiver(s).

7. **Connect Receiver (Sold Separately):** For a complete system, connect a compatible ATEN VE8950R Receiver (sold separately) to your display and the same network.

8. **Power On Source and Display:** Power on your HDMI source device and the display.

For advanced configurations, including web GUI management and video wall setups, refer to the comprehensive user manual available on the ATEN website.

5. OPERATION

Once the VE8950T Transmitter and its corresponding receiver(s) are properly connected and powered on, the system will automatically begin transmitting the HDMI signal over the IP network.

- **Signal Transmission:** The HDMI video and audio from the source connected to the VE8950T will be extended to the display connected to the receiver.

- **Status Indicators:** Observe the **LINK** and **POWER** LEDs on the top panel. The POWER LED should be solid, and the LINK LED should indicate active network connection and data transmission.

- **Web GUI Management:** The VE8950T supports management via a web-based Graphical User Interface (GUI). Access the web GUI by entering the device's IP address into a web browser on a computer connected to the same network. The web GUI allows for advanced configuration, monitoring, and control, including video wall setup and firmware updates.

- **RS-232 Control:** The RS-232 port can be used for serial control from a control system. Refer to the detailed product manual for RS-232 command protocols.

- **IR Control:** If an IR receiver is connected, you can extend IR remote control signals from the display location back to the source device.

6. MAINTENANCE

To ensure optimal performance and longevity of your ATEN VE8950T Transmitter, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the device. Do not use liquid or aerosol cleaners.

- **Ventilation:** Ensure proper ventilation around the device to prevent overheating. Do not block any ventilation openings.

- **Environment:** Operate the device within the specified temperature and humidity ranges. Avoid exposing it to direct sunlight, excessive dust, or moisture.

- **Firmware Updates:** Periodically check the ATEN website for firmware updates. Keeping the firmware up-to-date can improve performance, add new features, and resolve potential issues.

- **Cable Management:** Ensure all cables are securely connected and properly routed to prevent accidental disconnections or damage.

7. TROUBLESHOOTING

If you encounter issues with your ATEN VE8950T Transmitter, refer to the following troubleshooting tips:

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
No video output on display.	- Loose HDMI or Ethernet cables. - Incorrect ID setting on transmitter/receiver. - Power issue. - Network connectivity problem. - Incompatible display resolution.	- Check and re-secure all cable connections. - Ensure the transmitter and receiver IDs match. - Verify the power adapter is connected and the POWER LED is on. - Check network switch status and cable integrity. - Ensure the display supports the output resolution from the source. Try a different source or display.
Poor video quality or flickering.	- Low-quality HDMI or Ethernet cables. - Network bandwidth issues. - Interference.	- Use high-quality, certified HDMI and Cat 5e/6/6a cables. - Ensure the network switch is Gigabit and dedicated bandwidth is available. Avoid network congestion. - Relocate devices away from potential sources of electromagnetic interference.
Cannot access Web GUI.	- Incorrect IP address. - Network configuration issue. - Firewall blocking access.	- Verify the device's IP address. Use a network scanner if unknown. - Ensure your computer is on the same subnet as the VE8950T. - Temporarily disable firewall on your computer to test access.

If the problem persists, please contact ATEN technical support for further assistance.

8. SPECIFICATIONS

Model Number	VE8950T
Connectivity Technology	HDMI, Ethernet (IP)
Video Encoding	H.265
Max. Resolution	4K (3840 x 2160) @ 60Hz (4:2:0), 4K (3840 x 2160) @ 30Hz (4:4:4)
Audio Output Mode	Stereo, Surround
Surround Sound	5.1 Channel Configuration
Total HDMI Ports	1 (Input)
Control Method	Remote (IR), RS-232, Web GUI
Product Dimensions	9.5 x 6.5 x 6.3 inches
Item Weight	10.14 pounds

9. Warranty and Support

ATEN is committed to providing high-quality products and excellent customer service. For support regarding your VE8950T Transmitter, please refer to the following:

- **Technical Support:** ATEN offers free technical support. For assistance, please contact ATEN's support team. They aim to respond to customer inquiries within 4 hours.
- **Warranty Service:** Information regarding standard warranty coverage and extended warranty service packages can be found on the official ATEN website or by contacting customer service.
- **RMA Service:** ATEN provides localized repair centers for Return Merchandise Authorization (RMA) services.
- **Online Resources:** Visit the official ATEN website for product documentation, FAQs, driver downloads, and firmware updates.

For the most current and detailed warranty information, please visit the [ATEN Official Store](#) or their corporate website.