HaiweiTech HHD-101

HaiweiTech HHD-101 4K Video Audio Decoder User Manual

Model: HHD-101

1. INTRODUCTION

The HaiweiTech HHD-101 is a versatile H.265/H.264 4K Video Audio Decoder designed for various professional applications, including advertisement displays, video encoding, and IP camera decoding. It supports a wide range of IP protocols such as RTMP, RTSP, RTP, HTTP, HLS, and UDP, and offers both HDMI (up to 4K@30FPS) and CVBS/BNC outputs. This manual provides comprehensive instructions for the setup, operation, and maintenance of your HHD-101 decoder.

2. SAFETY INFORMATION

- Ensure the device is powered by a 12V 2A power supply. Using an incorrect power supply may damage the unit.
- Do not expose the device to water, moisture, or extreme temperatures.
- Avoid placing the device in direct sunlight or near heat sources.
- Do not attempt to open or repair the device yourself. Refer all servicing to qualified personnel.
- Ensure proper ventilation around the device to prevent overheating.
- Disconnect power before cleaning or moving the device.

3. PACKAGE CONTENTS

Please check the package contents upon unpacking. If any items are missing or damaged, contact your vendor immediately.

- HaiweiTech HHD-101 Decoder Unit
- 12V Power Adapter
- User Manual (this document)

4. PRODUCT OVERVIEW

Familiarize yourself with the various ports and indicators on the HHD-101 decoder.

Figure 4.1: Front Panel Overview of HHD-101 Decoder.

Figure 4.2: Rear Panel Overview of HHD-101 Decoder.

Figure 4.3: Detailed Port Diagram and Descriptions.

Port Descriptions:

1. **LAN (Ethernet port):** Used for network connection. Configuration of the IP gateway may be required for normal operation.

2. **LED indicators:**

- Red: Power ON
- Green: Network activity

3. **RST (Reset):** Press and hold the RST button until the green LED light turns off to reset the device.

4. **AV OUT (CVBS out):** Composite video output.

5. **HDMI OUT (HDMI out):** High-Definition Multimedia Interface output.

6. **BNC OUT (BNC out):** BNC connector for video output.

7. **RS485:** Serial communication port (GEN, IO-1, IO-2, 485A, 485B).

8. **Power In:** 12V 2A DC power input.

5. SETUP

Follow these steps to set up your HHD-101 decoder:

1. **Connect Power:** Connect the provided 12V 2A power adapter to the "Power In" port (8) on the rear panel of the decoder. Plug the adapter into a power outlet. The red LED indicator should illuminate.

2. **Network Connection:** Connect an Ethernet cable from your network router or switch to the "LAN" port (1) on the front panel. The green LED indicator should illuminate, indicating network activity.

3. **Video Output Connection:**

   - For HDMI output: Connect an HDMI cable from the "HDMI OUT" port (5) to your display device (e.g., TV, monitor).
   - For CVBS/BNC output: Connect a BNC cable from the "BNC OUT" port (6) or an AV cable from the "AV OUT" port (4) to your display device.

4. **Audio Output (if applicable):** If using AV OUT, audio will be carried through the composite cable. For HDMI, audio is embedded in the HDMI signal.

5. **RS485 Connection (Optional):** If required for control or data transmission, connect your RS485 devices to the RS485 terminal block (7).

Once all connections are made, the device is ready for configuration and operation.

6. OPERATING INSTRUCTIONS

The HHD-101 decoder is designed to receive and decode various IP video streams. Operation typically involves configuring the decoder via its web interface to receive the desired stream.

6.1. Accessing the Web Interface

1. Ensure the decoder is connected to your network as described in the Setup section.

2. Find the IP address of the decoder. This can often be done using a network scanning tool or by checking your router's connected devices list. The default IP address is typically provided in the separate software utility or quick start guide.

3. Open a web browser on a computer connected to the same network.

4. Enter the decoder's IP address into the browser's address bar and press Enter.

5. Log in using the default username and password (refer to the quick start guide or contact support if unknown).

6.2. Configuring IP Stream Decoding

Within the web interface, you will find options to configure the input stream. The HHD-101 supports multiple protocols:
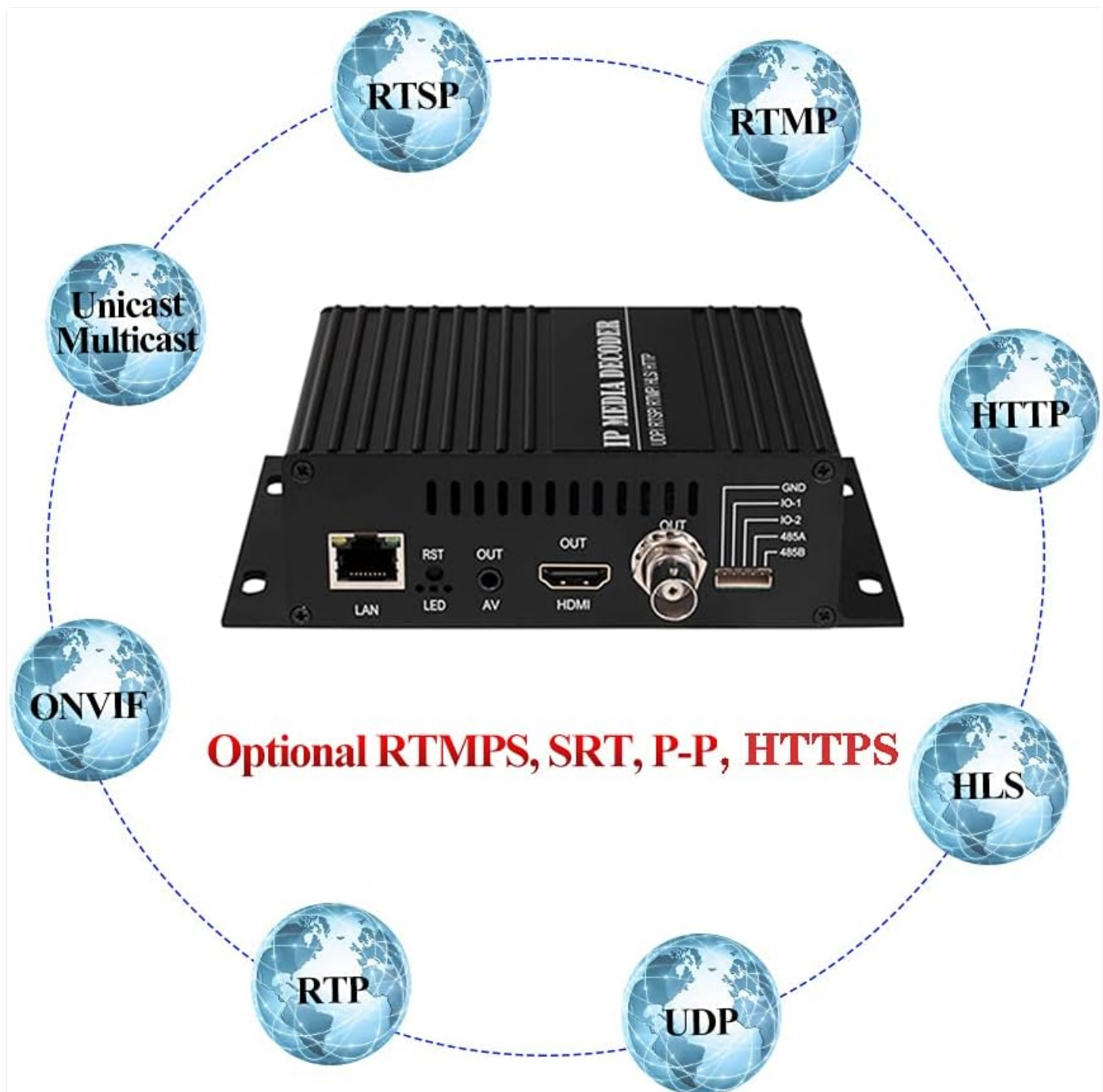
Figure 6.1: Supported IP Protocols for HHD-101 Decoder.

- Navigate to the "Input Settings" or "Stream Configuration" section.
- Select the desired protocol (e.g., RTMP, RTSP, HLS, UDP).
- Enter the source IP address or URL of the video stream you wish to decode.
- Configure any additional parameters such as port numbers, authentication credentials, or specific stream IDs as required by your source.
- Save the settings. The decoder should begin receiving and outputting the video stream to the connected display.

6.3. Multi-View Decoding

The HHD-101 supports decoding up to 4 channels for multi-view display. Consult the web interface documentation for specific instructions on configuring multi-view layouts and switching between sources.

6.4. Proprietary Protocol (P-P)

For ultra-low latency point-to-point transmission, the HHD-101 decoder can be used with Haiwei proprietary protocol encoders. This solution is available only when using both HaiweiTech encoders and decoders.

① LAN- Ethernet port
Need to configure the IP gateway of the decoder if need to normally use it.

② LED indicators
RED: POWER ON
Green: Network

③ RST- Reset
Keep sticking the RST button until the GREEN light off

④ AV OUT- CVBS out

⑤ HDMI OUT-HDMI out

⑥ BNC OUT-BNC out

⑦ RS485
GEN
IO-1
IO-2
485A
485B

⑧ Power In
12V 2A power required

Figure 6.2: Typical System Diagram with HaiweiTech Encoder and Decoder.

7. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the device. Do not use liquid cleaners or aerosols.
- **Ventilation:** Ensure the ventilation slots are clear of dust and obstructions to maintain proper airflow.
- **Firmware Updates:** Periodically check the HaiweiTech website or contact support for available firmware updates to ensure optimal performance and access to new features.
- **Storage:** If storing the device for an extended period, disconnect it from power and store it in a cool, dry place.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
No power (Red LED off)	Power adapter not connected or faulty; power outlet issue.	Check power adapter connection. Try a different power outlet. Ensure 12V 2A power supply is used.
No network connection (Green LED off/flashing irregularly)	Ethernet cable disconnected or faulty; incorrect IP configuration; network issue.	Check Ethernet cable connection. Verify network settings and IP address. Restart router/switch.
No video output	Incorrect input stream URL/settings; display device not selected correctly; faulty HDMI/AV/BNC cable; display resolution incompatibility.	Verify stream URL and protocol in web interface. Ensure correct input is selected on your display. Try a different cable. Check if output resolution is supported by display.

Problem	Possible Cause	Solution
Video stuttering or freezing	Insufficient network bandwidth; unstable source stream; decoder overload.	Check network speed and stability. Verify source stream quality. Reduce the number of simultaneous decoding channels if applicable.
Cannot access web interface	Incorrect IP address; network connectivity issue; firewall blocking access.	Confirm decoder's IP address. Ensure computer is on the same subnet. Temporarily disable firewall on computer.

9. SPECIFICATIONS

Feature	Detail
Model Number	HHD-101
Input	Up to 4 (multi-view) Channel H.264/H.265 IP (RTMP/RTSP/RTP/HTTP/HLS/UDP), MPEG1, MPEG2, MPEG4, SL hyperlink (P-P), VP8/VP9/AVS/AVS+
Output	1x HDMI (up to 4096*2160P 30FPS), 1 channel CVBS/BNC, RS485 out
Resolution Support	4096*2160 30/25/24, 3840*2160 30/25/24, 1080P 60/50/30/25/24, 1080I 60/50, 720P 60/50/25/24, 576P 50
Connectivity Technology	HDMI
Compatible Devices	Television
Package Dimensions	10.83 x 8.46 x 3.15 inches
Item Weight	2.2 pounds (approx. 1 Kilogram)
Manufacturer	HaiweiTech

10. WARRANTY AND SUPPORT

For warranty information, please refer to the documentation provided at the time of purchase or visit the official HaiweiTech website. For technical support, additional manufacturing services (SDK/API, IP finder/Video management platform/IOS Android APP), solution analysis, or OEM services, please contact HaiweiTech directly. Contact details are typically available on the manufacturer's website or through your vendor.

Note: Haiwei proprietary protocol based ultra low latency point to point transmission solution is available with the decoder only. Additional manufacturing Services:SDK/API,IP finder/Video management platform/IOS Android APP,Solution analyze,OEM(more detail:hansen(at)hwsxtec(.)com)