**ORIVISION DH931 H.265 HDMI OLED**

# ORIVISION DH931 H.265 4K HDMI VGA CVBS Video Audio Decoder User Manual

Model: DH931

## 1. Introduction

The ORIVISION DH931 is a professional high-definition AV decoder designed for various video systems. It supports H.265 and H.264 decoding formats and offers multiple output interfaces including HDMI, CVBS, and VGA, along with stereo audio output. This device is capable of decoding resolutions up to 4K (3840x2160@30Hz) and supports various streaming protocols, making it suitable for multimedia release, digital signage, and signal distribution applications.
The DH931 decoder features high integration and is designed for reliable performance. It includes an OLED display for real-time monitoring of device name, IP address, resolution, and working status, ensuring uninterrupted video decoding. Additionally, it supports Power over Ethernet (POE) for flexible power options.

## 2. Product Features

- **LCD Display:** Shows device name, IP address, resolution, and working status.
- **High Resolution Output:** Supports up to 4K (3840×2160@30Hz) resolution output.
- **Multiple Outputs:** Includes 1x HDMI output, 1x VGA output, 1x CVBS output, and 1x audio output.
- **Extensive Protocol Support:** Compatible with HTTP, RTSP, RTMP, RTMPS, SRT, UTP, and UDP/RTP protocols.
- **Decoding Formats:** Supports H.265 Baseline Profile, H.264 Baseline Profile, H.264 Main Profile, and H.264 High Profile decoding.
- **Channel Decoding:** Capable of 1 channel 4K decoding, 4 channels 1080P decoding, or 9 channels 720P decoding.
- **Embedded RTMP Server:** Allows direct transmission to the ORIVISION decoder using RTMP protocol without an external RTMP platform.
- **POE Power Supply:** Supports Power over Ethernet for simplified installation.
- **Web Interface Management:** Provides a web-based interface for configuration and remote management.
- **SDK Support:** Available for secondary development and integration.

Figure 1: ORIVISION DH931 Decoder highlighting its main features.

# 3. Setup

## 3.1 Package Contents

Before proceeding with the setup, please ensure all components are present:

- ORIVISION DH931 Video Decoder Unit
- Power Adapter (12V/DC 1A)
- User Manual (this document)

## 3.2 Device Overview


Figure 2: Side view of the DH931 Decoder with input/output ports.


Figure 3: Front view of the DH931 Decoder showing the OLED display.

### 3.3 Connecting the Device

1. **Power Connection:** Connect the provided 12V/DC 1A power adapter to the '12V/DC' port on the decoder. If using Power over Ethernet (POE), connect an Ethernet cable from a POE-enabled switch to the 'LAN' port.
2. **Network Connection:** Connect an Ethernet cable from your network to the 'LAN' port on the decoder. This is essential for receiving IP streams and accessing the web management interface.
3. **Video Output:** Connect your display device (monitor, TV, projector) to one of the video output ports:
    - For HDMI display: Use an HDMI cable to connect to the 'HDMI OUT' port.
    - For VGA display: Use a VGA cable to connect to the 'VGA OUT' port.
    - For CVBS display: Use a CVBS cable to connect to the 'CVBS OUT' port.
4. **Audio Output:** Connect your audio system or speakers to the 'AUDIO OUT' port using a stereo audio cable.

## 4. Operating Instructions

### 4.1 Power On and Initial Status

Once all connections are made, power on the device. The OLED display on the front panel will show the device's IP address, current resolution, and working status. The PWR and STA indicator lights will illuminate, indicating the device is operational.

### 4.2 Accessing the Web Interface

To configure advanced settings and manage the decoder, access its web interface:

1. Ensure your computer is on the same network as the decoder.
2. Open a web browser and enter the IP address displayed on the decoder's OLED screen.
3. Log in using the default credentials (refer to the full manual for default username/password).
4. From the web interface, you can configure network settings, decoding parameters, and monitor device status.

### 4.3 Decoding Video Streams

The DH931 decoder supports various decoding modes based on the input stream resolution:

- **4K Resolution:** When the input stream is 4K, 1 channel decoding is supported, with an output resolution of up to 4K@30Hz.
- **1080P Resolution:** For 1080P input streams, up to 4 channels decoding output can be supported.
- **720P Resolution:** For 720P input streams, up to 9 channels decoding output can be supported.
- **CVBS Interface:** The CVBS interface supports only 1 channel decoding output.


Figure 4: Example setup diagram for the 4K Video Decoder.

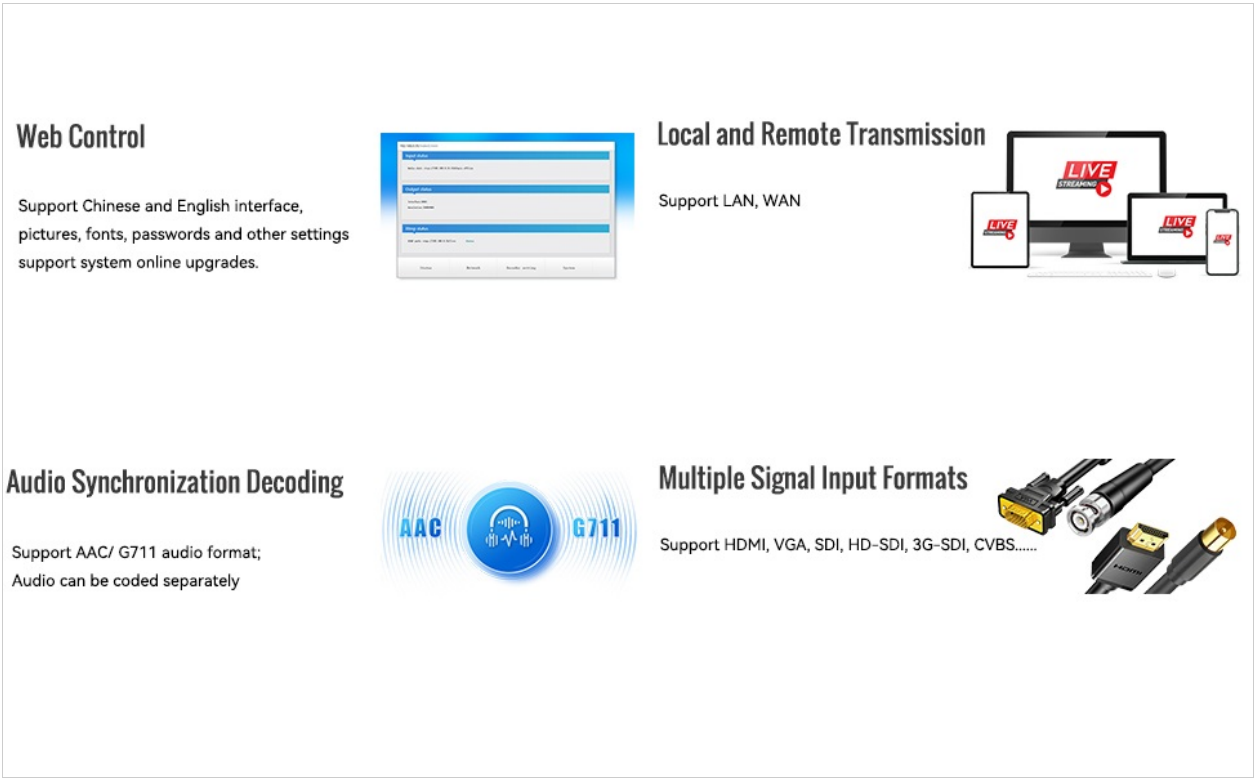


Figure 5: Diagrams illustrating Embedded RTMP Server and Protocol Conversion capabilities.

## 5. Specifications

| Category | Specification |
| --- | --- |
| Video Output | 1x HDMI (support HDMI1.4 and HDCP1.4), 1x VGA, 1x CVBS |
| Output Resolution | 3840×2160@30Hz, 1080P@60/50/30Hz, 720P@60/50Hz, 576P@50, 480P@60, 1280×1024@60, 1280×800@60, 1024×768@60, 800×600@60 |
| Decoding | H.265, H.264 |
| Audio Output | 1x Audio |
| Audio Decoding Format | AAC, MP3 |
| Stereo | Adjustable sound volume |
| OLED Display | IP address, resolution, and working status |
| RJ45 | 1000M internet access |
| Protocols | HTTP, RTSP, RTMP, RTMPS, SRT, UTP, UDP/RTP |
| Interface | WEB operation interface |
| Upgrade | Software upgrading through the internet |
| Dimension | 6.4*4.4*1.3 inches (163*111*32mm) |
| Weight | 0.35 kg (1.35 pounds) |
| Temperature | 0~45°C (work), -20~80°C (storage) |
| Power Supply | Stand-alone: 12V/DC 1A |
| Power Dissipation | <5W/1 channel |

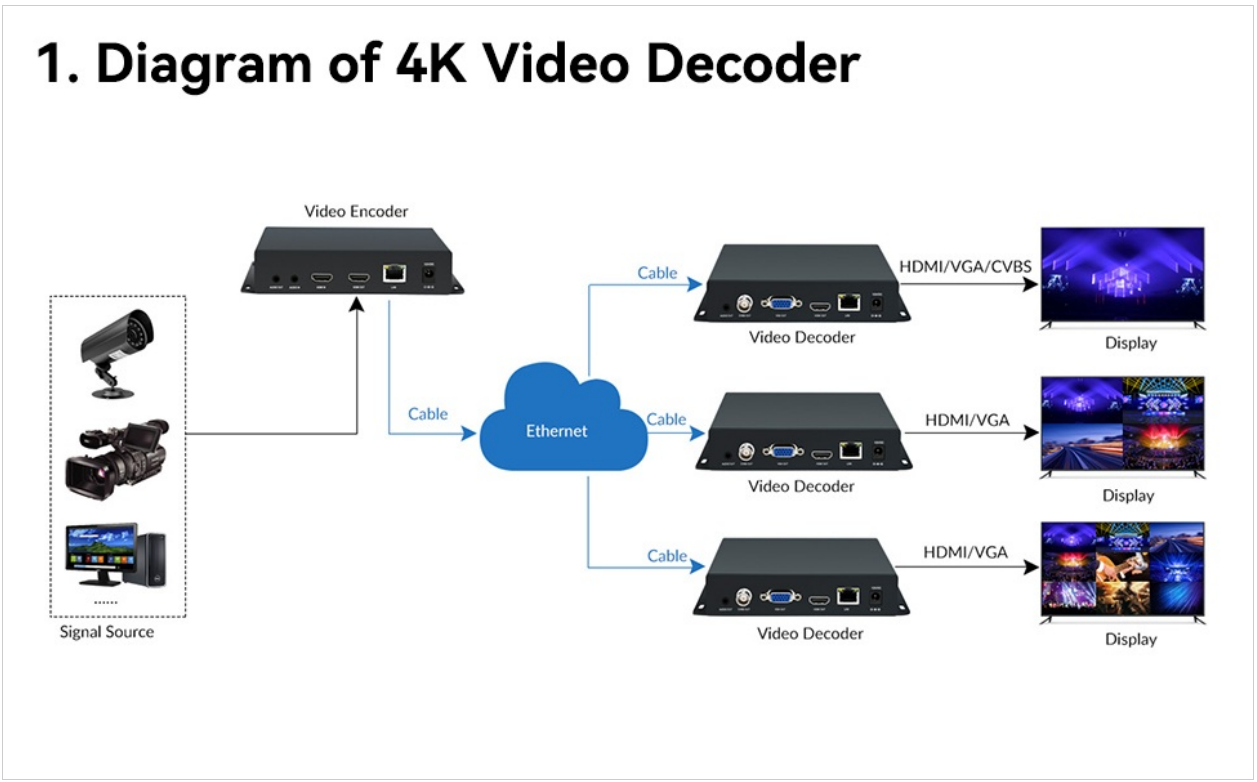


Figure 6: Detailed specifications of the DH931 Decoder.

## 6. Troubleshooting

- **No Video Output:**
  - Check all video cable connections (HDMI, VGA, CVBS) to ensure they are secure.
  - Verify the input source selection on your display device matches the connected port.
  - Ensure the decoder is powered on and the indicator lights are active.
  - Confirm the input video stream is active and correctly configured on the source device.
- **No Audio Output:**
  - Check the audio cable connection to the 'AUDIO OUT' port and your audio system.
  - Verify the volume settings on both the decoder (via web interface) and your audio system.
  - Ensure the input stream contains audio and is being decoded correctly.
- **Network Connection Issues:**
  - Check the Ethernet cable connection to the 'LAN' port.
  - Verify the network settings (IP address, subnet mask, gateway) via the OLED display or web interface.
  - Ensure your network infrastructure (router, switch) is functioning correctly.
- **Decoding Problems (e.g., stuttering, artifacts):**
  - Ensure the input stream's resolution and bitrate are within the decoder's supported limits.
  - Check network bandwidth and stability, as insufficient bandwidth can cause decoding issues.
  - Verify the decoding format (H.265/H.264) matches the input stream.
  - Consider updating the device firmware via the web interface if available.

## 7. Maintenance

- **Cleaning:** Regularly clean the device with a soft, dry cloth. Avoid using liquid cleaners or aerosols.
- **Ventilation:** Ensure the device has adequate ventilation to prevent overheating. Do not block any ventilation openings.
- **Firmware Updates:** Periodically check the manufacturer's website or the device's web interface for firmware updates to ensure optimal performance and access to new features.
- **Storage:** When not in use for extended periods, store the device in a cool, dry place away from direct sunlight and extreme temperatures.

## 8. Warranty and Support

This ORIVISION product comes with a manufacturer's warranty. For specific warranty terms and conditions, please refer to the documentation included with your purchase or visit the official ORIVISION website.
For technical support, troubleshooting assistance, or any inquiries regarding your DH931 decoder, please contact ORIVISION customer service. You can typically find contact information by:

- Checking the product packaging or included documentation.
- Visiting the ORIVISION Store on Amazon.
- Using the 'Contact Seller' option on your purchase platform.

ORIVISION aims to resolve your questions within 24 hours.