Axis Communications P7304

Axis Communications P7304 4-Channel Video Encoder User Manual

Model: 01680-001

1. Introduction

The Axis Communications P7304 is a 4-channel video encoder designed to convert analog video signals into digital IP video streams. This device enables the integration of existing analog camera systems into modern IP-based surveillance networks, leveraging advanced features such as H.264 and H.265 compression with Axis Zipstream technology to optimize bandwidth and storage usage. The P7304 supports various HD analog formats including HD-TVI, HD-CVI, AHD, and CVBS, and offers support for PTZ camera control via RS-485/422 ports.



Image: The Axis Communications P7304 4-Channel Video Encoder, showing its compact grey housing with four BNC input connectors on the front and status indicator lights.

2. Key Features

- **4-Channel Analog Input:** Connects up to four analog cameras (HD-TVI, HD-CVI, AHD, CVBS).

- **IP Video Conversion:** Encodes analog signals into digital IP video streams.
- **High-Efficiency Compression:** Supports H.264 and H.265 video compression with Axis Zipstream technology for reduced bandwidth and storage.
- **High Resolution Support:** Capable of handling video resolutions up to 1080p at 30 frames per second.
- **PTZ Control:** Integrated RS-485/422 ports for controlling Pan/Tilt/Zoom cameras.
- **Network Connectivity:** RJ45 Ethernet port for network integration.

3. Setup Guide

3.1 Unpacking and Inspection

- Carefully remove the P7304 encoder from its packaging.
- Verify that all components are present and inspect the unit for any signs of physical damage.

3.2 Physical Installation

Choose a suitable location for the encoder, ensuring it is in a stable environment with adequate ventilation. Consider mounting options if applicable, though specific mounting hardware is not included with the base unit.

3.3 Connecting the Device

1. **Connect Analog Cameras:** Attach your analog cameras to the BNC input connectors labeled 1 through 4 on the encoder. Ensure secure connections.
2. **Connect Network Cable:** Plug an Ethernet cable into the RJ45 network port on the encoder and connect the other end to your network switch or router.
3. **Connect Power:** Connect the power adapter to the encoder's power input and then to a power outlet. The power indicator LED should illuminate.

3.4 Initial Network Configuration

Upon power-up, the encoder will typically attempt to obtain an IP address via DHCP. To access the web interface for configuration, you will need to determine the IP address assigned to the device. This can often be done using Axis IP Utility software or by checking your router's DHCP client list. Once the IP address is known, open a web browser and enter the IP address to access the encoder's configuration interface.

4. Operation

4.1 Accessing the Web Interface

Enter the encoder's IP address into your web browser. You will be prompted to log in. Use the default credentials (if not changed) or the credentials you set during initial setup.

4.2 Video Stream Configuration

Within the web interface, navigate to the video settings for each channel. Here you can configure:

- **Resolution:** Select the desired output resolution (up to 1080p).
- **Frame Rate:** Adjust the frames per second (up to 30 fps).
- **Compression:** Choose between H.264 and H.265, and enable Axis Zipstream for optimized video quality and reduced file sizes.
- **Image Settings:** Adjust brightness, contrast, saturation, and other image parameters.

4.3 PTZ Control

If using PTZ-enabled analog cameras, connect them to the RS-485/422 ports. Configure the PTZ settings in the web

interface, including protocol and address, to enable remote control of camera movement and zoom functions.

4.4 Event Management

The encoder supports various event triggers and actions. Configure motion detection, tampering alarms, or external input triggers to initiate actions such as video recording, notification sending, or activating external outputs.

5. Maintenance

- **Firmware Updates:** Regularly check the Axis Communications website for the latest firmware updates. Applying updates can improve performance, add new features, and resolve known issues. It is recommended to perform a factory reset after major firmware upgrades to ensure optimal functionality.
- **Cleaning:** Keep the encoder clean and free from dust. Use a soft, dry cloth for cleaning. Avoid using harsh chemicals or abrasive materials.
- **Environmental Conditions:** Ensure the encoder operates within its specified temperature and humidity ranges to prevent overheating or damage.

6. Troubleshooting

- **No Power:** Verify that the power adapter is securely connected to both the encoder and a working power outlet. Check the power indicator LED.
- **No Network Connectivity:** Ensure the Ethernet cable is properly connected to the RJ45 port and the network. Confirm that the network status LED is active. Check IP address settings (DHCP or static) and network configuration.
- **No Video Output:** Confirm that analog cameras are correctly connected to the BNC inputs. Verify that the camera's video format (HD-TVI, HD-CVI, AHD, CVBS) is compatible and properly configured in the encoder's web interface.
- **Poor Video Quality:** Check the resolution, frame rate, and compression settings in the web interface. Ensure that the analog video cables are of good quality and appropriate length.
- **Encoder Offline/Connection Issues:** If the encoder frequently drops offline, especially in systems like Synology Surveillance Station, it may be due to corrupted TLS/SSL certificates. Consult Axis support for guidance on reloading certificates or performing a factory reset and reconfiguring. Ensure firmware is up to date.
- **Camera Compatibility Limitations:** Be aware that the encoder has specific limitations regarding camera resolution support. For example, it may only support a single 4K camera with other inputs disabled, or two 2K cameras with two inputs disabled. It supports four 1080p cameras. Resolutions between these specified points (e.g., 5MP or 6MP) may result in a corrupted image.

7. Technical Specifications

Brand	Axis Communications
Model Number	01680-001
Product Dimensions	19.69 x 19.69 x 11.02 inches
Item Weight	1.8 pounds
ASIN	B07Y6X3D5D
Manufacturer	Axis Communications AB
Compatible Devices	Cameras

Connector Type	RJ45 (Network), BNC (Analog Video)
Color	Grey

8. Warranty and Support

The Axis Communications P7304 4-Channel Video Encoder is covered by a manufacturer's warranty. For specific warranty terms and conditions, please refer to the documentation provided with your product or visit the official Axis Communications website. For technical support, firmware downloads, and additional resources, please visit the Axis Communications support portal.

Official Website: www.axis.com

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Example: How do I reset this device or fix this error?

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