Kiloview N6

Kiloview N6 HD HDMI/NDI Bi-Directional Converter User Manual

Model: N6

INTRODUCTION

The Kiloview N6 is a versatile bi-directional NDI converter designed to support both HDMI input (for encoding) and loop output (for decoding). It is compatible with both NDI high bandwidth and NDI HX2/3 protocols, allowing it to process NDI sources from various cameras, software, or devices. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your N6 converter, ensuring you can leverage its full capabilities for low-latency, high-quality video transmission.

WHAT'S IN THE BOX

Please check the contents of your package to ensure all items are present:

- 1 x Kiloview N6 HD HDMI/NDI Bi-Directional Converter
- 1 x Power Supply
- 1 x Cold Shoe Mount
- 1 x Quick Start Guide

PRODUCT OVERVIEW

The Kiloview N6 features a compact design with powerful functionalities. Below are key aspects of the device's physical layout and core features.

Figure 1: Front view of the Kiloview N6, showing the integrated 1.14-inch LCD screen which displays real-time status information such as CPU usage, memory, temperature, firmware version, and tally status. Navigation buttons are located on either side of the screen.

Figure 2: Rear view of the Kiloview N6, illustrating the various connectivity ports. From left to right, these include the NDI/PoE Ethernet port, HDMI IN, HDMI OUT, 3.5mm audio LINE IN/OUT, DC 12V power input, and Tally light indicator.

Key Features:

- **Bi-Directional NDI Conversion:** Supports both NDI High Bandwidth and NDI HX 2/3 for encoding HDMI signals into NDI streams and decoding NDI streams to HDMI output.
- **Integrated LCD Display:** A 1.14-inch LCD screen with touch buttons provides real-time monitoring of connectivity, IP address, CPU, memory, resolution, temperature, and tally status.
- **Flexible Power Options:** Supports Power over Ethernet (PoE) for single-cable power and data, as well as wide DC input (5V to 18V) for power via USB or camera battery.
- **Audio and Intercom Support:** Features 3.5mm analog audio line in/out and embedded audio. Supports up to 4-channel audio encoding and voice intercom with Kiloview Intercom server.
- **PTZ Control:** Enables control of PTZ cameras over the network.
- **Compact and Robust Design:** Durable construction suitable for various production environments.

SETUP

Follow these steps to set up your Kiloview N6 converter:

1. **Connect Power:**
   - If using PoE, connect an Ethernet cable from a PoE-enabled switch or injector to the NDI/PoE port on the N6.
   - Alternatively, connect the provided power supply to the DC 12V input port. The N6 supports a wide DC input range from 5V to 18V.

2. **Connect Video Source (for Encoding):**
   - Connect an HDMI cable from your video source (e.g., camera, computer) to the **HDMI IN** port on the N6.

3. **Connect Video Display (for Decoding/Loop Output):**
   - Connect an HDMI cable from the **HDMI OUT** port on the N6 to your display monitor or recording device.

4. **Connect to Network:**
   - Connect an Ethernet cable from the NDI/PoE port on the N6 to your network switch or router. This is essential for NDI transmission and control.

5. **Connect Audio (Optional):**
   - If using external audio, connect a 3.5mm audio cable to the **LINE IN**/**OUT** port as needed.

Figure 3: Example of the Kiloview N6 with power, HDMI input, HDMI output, and Ethernet cables connected, demonstrating a typical setup configuration.

OPERATING INSTRUCTIONS

The Kiloview N6 can operate in two primary modes: Encoding and Decoding. The working mode can be switched via the device's web UI.

1. Accessing the Web UI:

- Ensure the N6 is connected to the same network as your computer.
- Use the LCD screen to find the device's IP address.
- Open a web browser on your computer and enter the IP address of the N6.
- Log in using the default credentials (refer to the Quick Start Guide for details).

2. Encoding Mode:

In encoding mode, the N6 converts an HDMI video signal into an NDI stream.

- From the web UI, select "Encoder" as the working mode.

- Ensure your HDMI video source is connected to the **HDMI IN** port.
- Configure NDI stream settings such as resolution, frame rate, and bitrate as required.
- The NDI stream will now be discoverable by NDI-compatible software and hardware on your network.

3. Decoding Mode:

In decoding mode, the N6 receives an NDI stream from the network and outputs it via HDMI.

- From the web UI, select "Decoder" as the working mode.
- The N6 will automatically detect available NDI sources on the network. Select the desired NDI source from the list.
- The decoded video will be output through the **HDMI OUT** port to your connected display.

4. LCD Screen and Touch Buttons:

The front LCD screen provides quick access to device status and basic settings. Use the touch buttons (left and right arrows) to navigate through menus and the 'O' button to confirm selections.

- **Status Display:** View CPU, memory, temperature, IP address, and firmware version.
- **Tally Status:** The LCD screen also acts as a large tally light, indicating program (red) or preview (green) status in an NDI workflow.

5. Audio and Intercom:

- The N6 supports embedded audio from the HDMI source/output.
- For external audio, connect devices to the 3.5mm LINE IN/OUT port.
- For intercom functionality, connect to a Kiloview Intercom server and configure settings via the web UI.

6. PTZ Control:

The N6 supports PTZ control over the network. Refer to the detailed online manual or web UI for specific PTZ camera integration and control protocols.

MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your Kiloview N6 converter.

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the device. Do not use liquid cleaners or aerosols.
- **Ventilation:** Ensure the device is placed in a well-ventilated area to prevent overheating. Do not block ventilation openings.
- **Firmware Updates:** Regularly check the Kiloview official website for firmware updates. Keeping the firmware updated can improve performance, add new features, and fix bugs.
- **Storage:** When not in use for extended periods, store the device in a cool, dry place away from direct sunlight and extreme temperatures.
- **Cable Management:** Ensure all cables are securely connected and not under strain to prevent damage to ports or cables.

TROUBLESHOOTING

If you encounter issues with your Kiloview N6, refer to the table below for common problems and their solutions.

Problem	Possible Cause	Solution
No power indication on LCD.	No power supply or faulty connection.	Check power adapter connection or PoE connection. Ensure power source is active.

Problem	Possible Cause	Solution
No NDI stream detected (Encoding mode).	Incorrect network configuration; HDMI input issue; NDI settings.	Verify network cable connection. Check if HDMI source is active and connected to HDMI IN. Confirm NDI settings in web UI. Ensure firewall is not blocking NDI traffic.
No video output (Decoding mode).	No NDI source selected; HDMI output issue; display problem.	Ensure an NDI source is selected in the web UI. Check HDMI cable connection to display. Verify display input.
Device overheating.	Poor ventilation; high ambient temperature.	Ensure adequate airflow around the device. Move to a cooler environment if necessary.
Cannot access web UI.	Incorrect IP address; network connectivity issue; firewall.	Verify IP address from LCD. Check network cable. Ensure computer is on the same subnet. Temporarily disable firewall.

SPECIFICATIONS

Technical specifications for the Kiloview N6 HD HDMI/NDI Bi-Directional Converter:

Feature	Detail
Model Number	N6
Brand	Kiloview
Video Input	1x HDMI
Video Output	1x HDMI (Loop Out / Decoding Output)
Network Interface	1x RJ45 Ethernet (NDI/PoE)
Audio Interface	3.5mm Line In/Out
Supported NDI Protocols	NDI High Bandwidth, NDI HX2/3
Power Input	DC 5V-18V, PoE (Power over Ethernet)
Display	1.14-inch LCD screen with touch buttons
Dimensions	7.44 x 6.18 x 3.27 inches (Package Dimensions)
Weight	1.41 pounds
Compatible Devices	Monitors, Projectors, Cameras
Specific Uses	Video conferences, PTZ control, IP-based post production

WARRANTY AND SUPPORT

Kiloview products are designed for reliability and performance. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official Kiloview website. For technical support, firmware updates, or additional resources, please visit the Kiloview support portal or contact their customer service team.

Manufacturer: Kiloview
Date First Available: November 12, 2024