

SDTNOVA SDI-20H4K30

SDTNOVA 4K HDMI 3G-SDI 20X Optical Live Streaming Camera User Manual

Model: SDI-20H4K30

1. INTRODUCTION

This manual provides instructions for the SDTNOVA 4K HDMI 3G-SDI 20X Optical Live Streaming Camera, Model SDI-20H4K30. It covers setup, operation, maintenance, and troubleshooting to ensure optimal performance and longevity of your device. Please read this manual thoroughly before using the camera.

2. PRODUCT OVERVIEW

2.1 Key Features

- **4K UHD Resolution:** Captures video at 3840x2160 pixels at 30 frames per second (fps).
- **High-Quality Sensor:** Equipped with a 1/2.8-inch Exmor R CMOS sensor, providing 8.42 million effective pixels.
- **20x Optical Zoom:** Features a 5.5-110mm optical zoom lens for detailed close-ups and wide-angle shots.
- **Multiple Simultaneous Outputs:** Supports HDMI, 3G-SDI, USB 3.0, and LAN video outputs concurrently.
- **Flexible Control:** On-camera buttons for zoom and menu navigation, with RS-485 and LAN for external control.
- **Power Supply:** Operates on DC12V 2A power.

2.2 Camera Components



Figure 2.2.1: Front view of the SDTNOVA 4K Live Streaming Camera, showing the lens and '4K UHD CAMERA' label.



Figure 2.2.2: Rear interface panel, detailing ports for RS-485, LAN, Power (POW, DC12V), 3G-SDI, HDMI, Line In, and USB3.0.

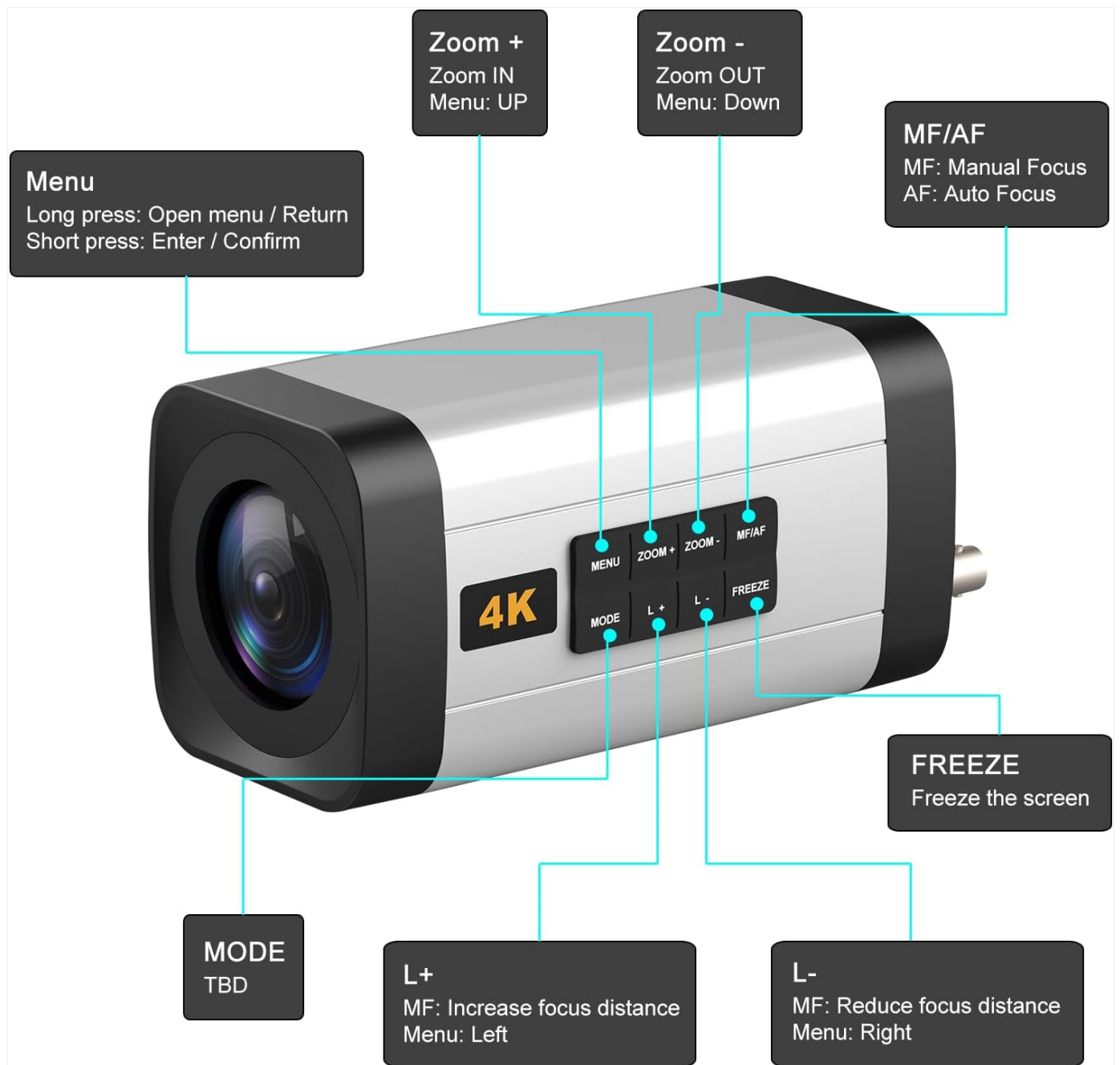


Figure 2.2.3: Side view of the camera, illustrating the function of each control button: MENU, ZOOM+, ZOOM-, MF/AF, L+, L-, FREEZE, and MODE.

3. SAFETY INFORMATION

To prevent damage and ensure safe operation, please observe the following precautions:

- Use only the provided DC12V 2A power adapter.
- Do not expose the camera to rain, moisture, or extreme temperatures.
- Avoid placing the camera in direct sunlight for extended periods.
- Do not attempt to disassemble or modify the camera. Refer all servicing to qualified personnel.
- Keep the camera away from strong electromagnetic fields.
- Ensure proper ventilation around the camera during operation.

4. SETUP

4.1 Unpacking and Mounting

1. Carefully remove the camera and all accessories from the packaging.
2. Mount the camera securely using the 1/4 inch screw threads located on the bottom of the unit. Ensure the mounting surface is stable.

4.2 Connecting the Camera

Connect the necessary cables as shown in the diagram below:

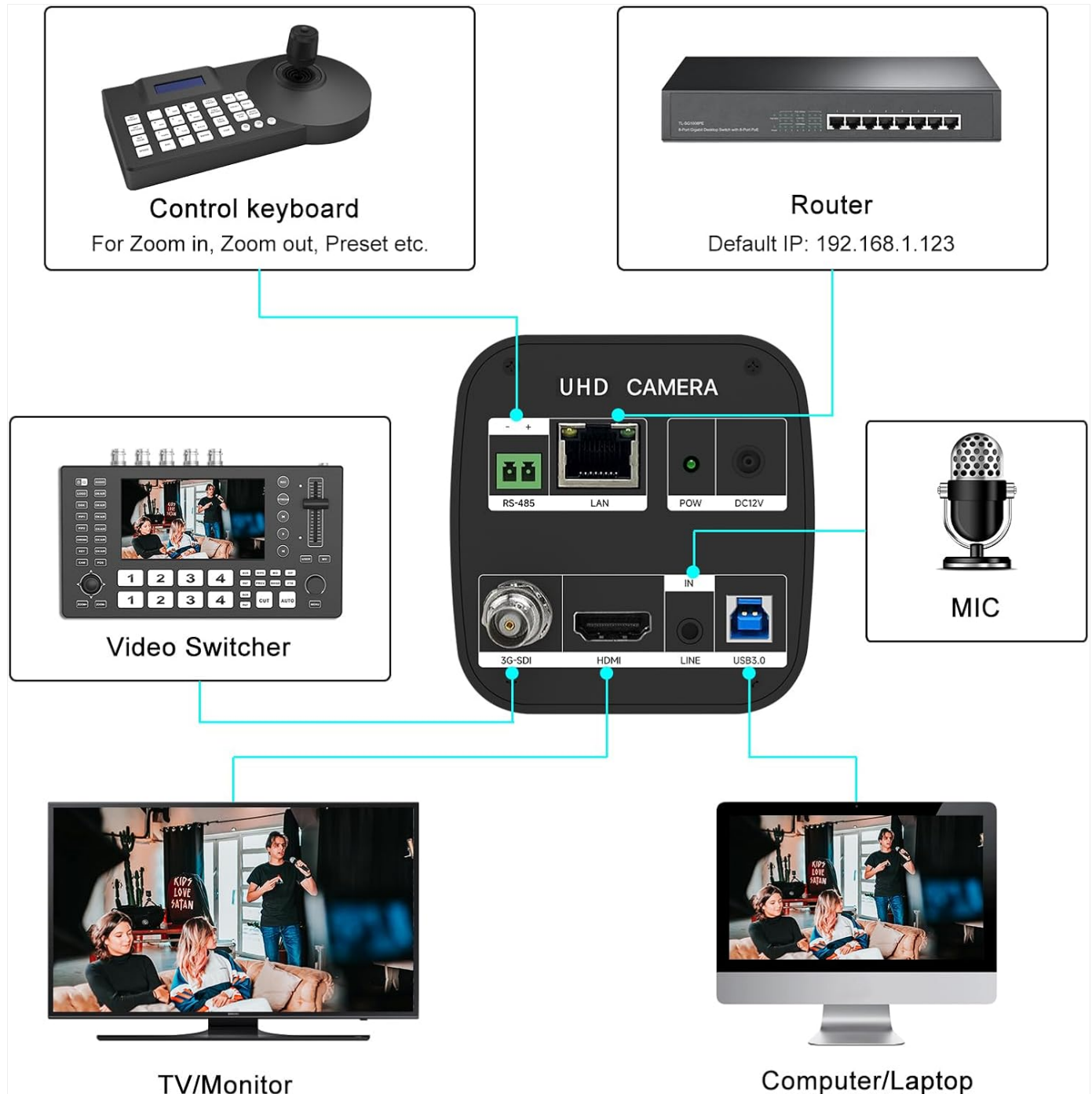


Figure 4.2.1: Diagram showing various connection possibilities for the camera, including a control keyboard, router, video switcher, microphone, TV/monitor, and computer/laptop.

- **Power:** Connect the DC12V 2A power adapter to the 'DC12V' port.
- **HDMI Output:** Connect an HDMI cable from the camera's 'HDMI' port to a compatible display, video switcher, or capture card.
- **3G-SDI Output:** Connect a 3G-SDI cable from the camera's '3G-SDI' port to a compatible SDI device.
- **USB 3.0 Output:** Connect a USB 3.0 cable from the camera's 'USB3.0' port to a computer for streaming or recording.

- **LAN (Network) Output:** Connect an Ethernet cable from the camera's 'LAN' port to a network router or switch for IP streaming and control.
- **Audio Input:** Connect a microphone to the 'LINE IN' port for audio input.
- **RS-485 Control:** Connect an RS-485 cable to the 'RS-485' terminal for external PTZ control (e.g., joystick controller).

5. OPERATING INSTRUCTIONS

5.1 Power On/Off

To power on the camera, ensure the DC12V 2A power adapter is connected and plugged into a power outlet. The camera will power on automatically. To power off, disconnect the power adapter.

5.2 Basic Controls (Side Buttons)

The camera features control buttons on its side for direct adjustments:

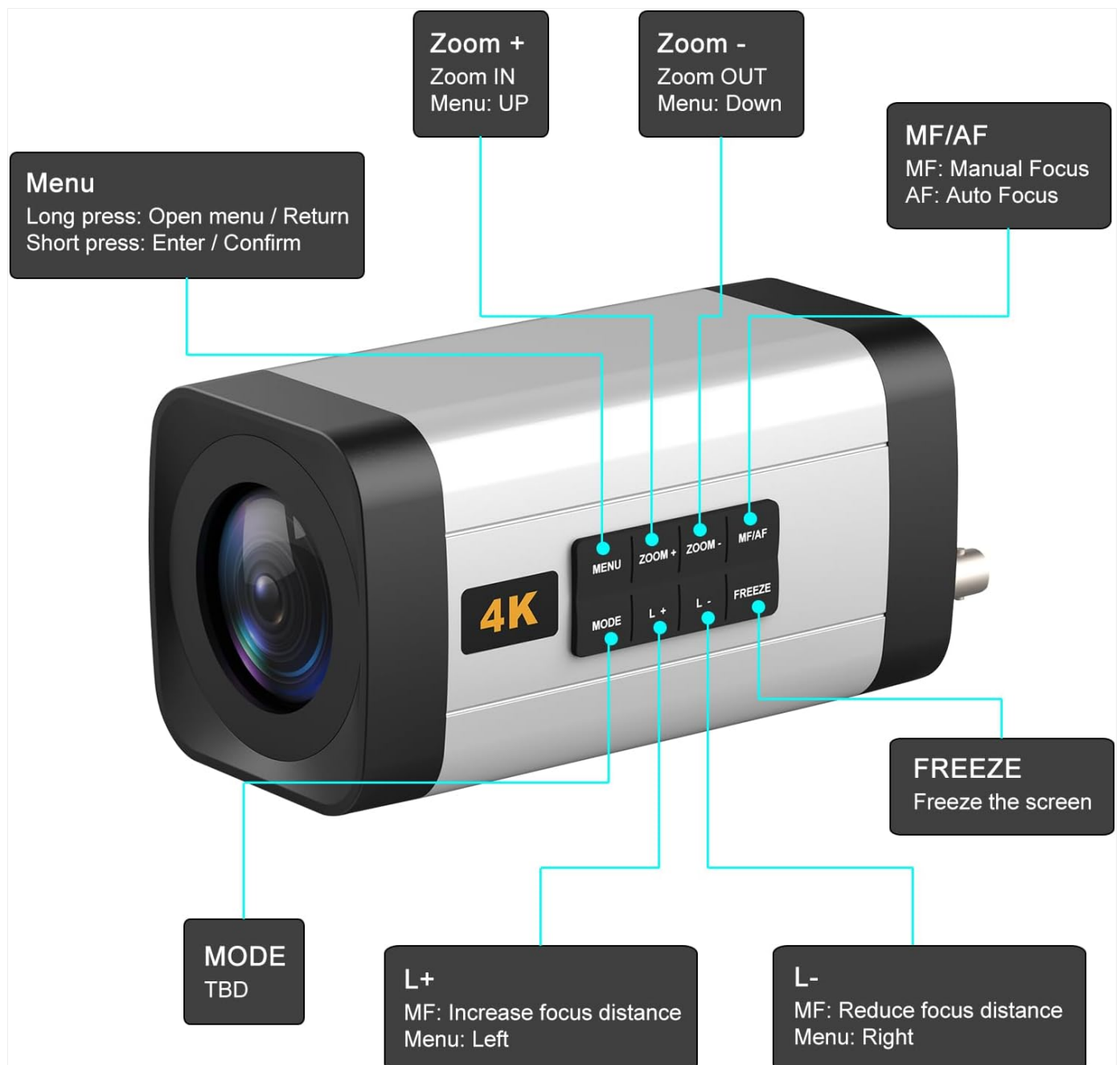


Figure 5.2.1: Side control buttons and their functions.

- **MENU:** Long press to open the on-screen menu or return to the previous menu. Short press to enter or confirm a selection.
- **ZOOM + / ZOOM -:** Controls the optical zoom. ZOOM + zooms in, ZOOM - zooms out. These also function as Menu UP/DOWN navigation.
- **MF/AF:** Toggles between Manual Focus (MF) and Auto Focus (AF) modes.
- **L+ / L-:** In Manual Focus mode, L+ increases the focus distance, and L- reduces it. These also function as Menu LEFT/RIGHT navigation.
- **FREEZE:** Freezes the current video output image.
- **MODE:** This button is reserved for future or advanced mode selections.

5.3 Focus and Zoom Operation

The camera offers precise control over focus and zoom:



Figure 5.3.1: On-screen focus menu options (Focus Mode, AF-Zone, AF-Sensitivity, NearLimit, FarLimit, AI FOCUS) and a visual comparison of 1x vs. 20x optical zoom.

- **Optical Zoom:** Use the ZOOM + and ZOOM - buttons to adjust the 20x optical zoom (5.5-110mm).
- **Focus Mode:** Press MF/AF to switch between Auto Focus (AF) for automatic focusing and Manual Focus (MF) for precise manual adjustment.

- **Manual Focus Adjustment:** In MF mode, use L+ and L- to fine-tune the focus distance.

5.4 Video Output Configuration

The camera supports various video formats across its multiple outputs:

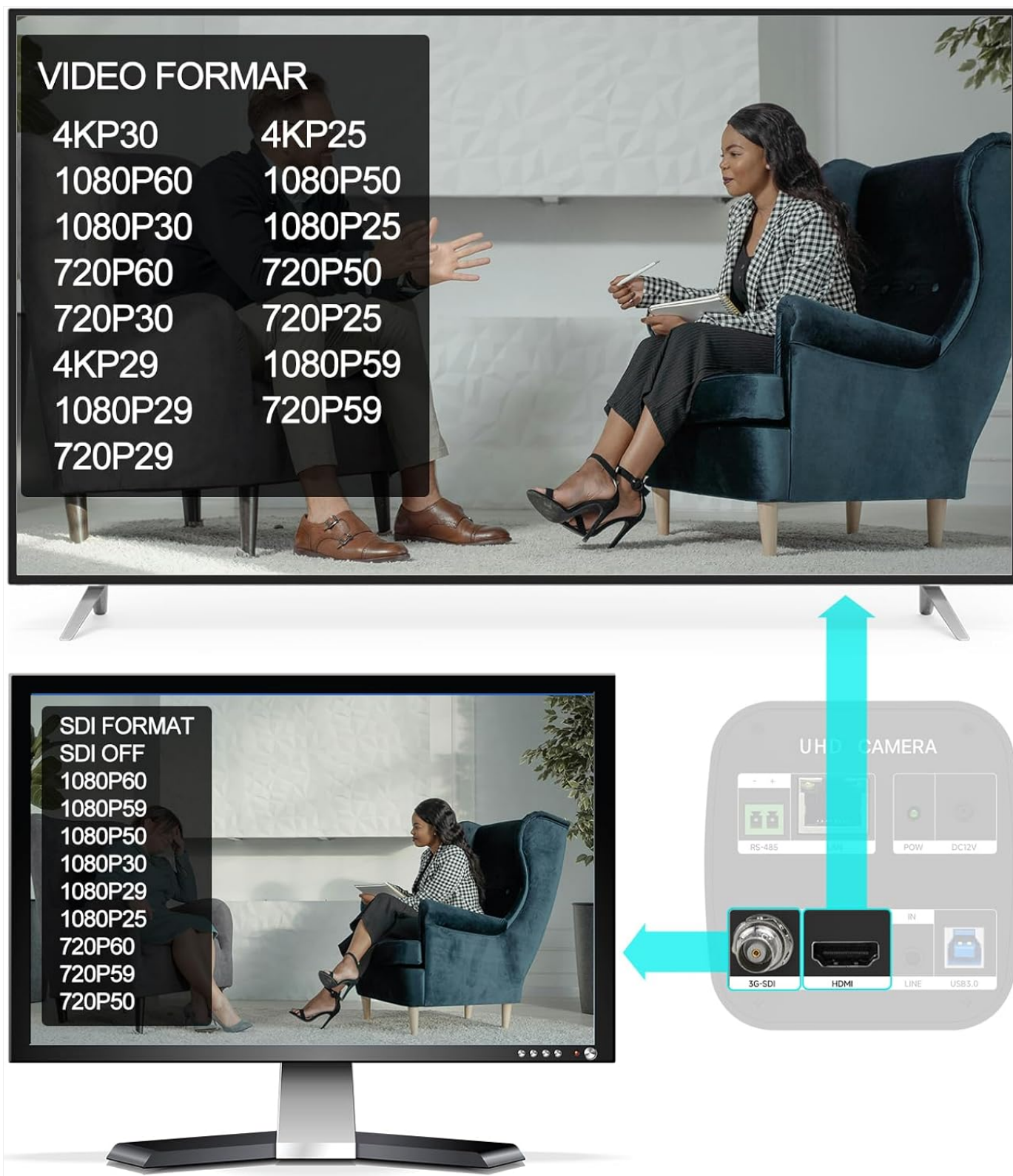


Figure 5.4.1: Displays available video formats for HDMI (4KP30/25, 1080P60/50/30/25, 720P60/50) and SDI (1080P60/50/30/25, 720P60/50) outputs.

- **HDMI Output Formats:** 4KP30/25, 1080P60/50/30/25, 720P60/50.
- **3G-SDI Output Formats:** 1080P60/50/30/25, 720P60/50.
- **USB 3.0 Output Formats:** 4KP30/25, 1080P30/25, 720P30/25.

- **Network Output Formats:** 4KP30/25, 1080P30/25, 720P30/25.

Select the desired output format through the camera's on-screen menu or connected control software.

5.5 Network and USB Streaming

The camera can be integrated with streaming software via USB or network:

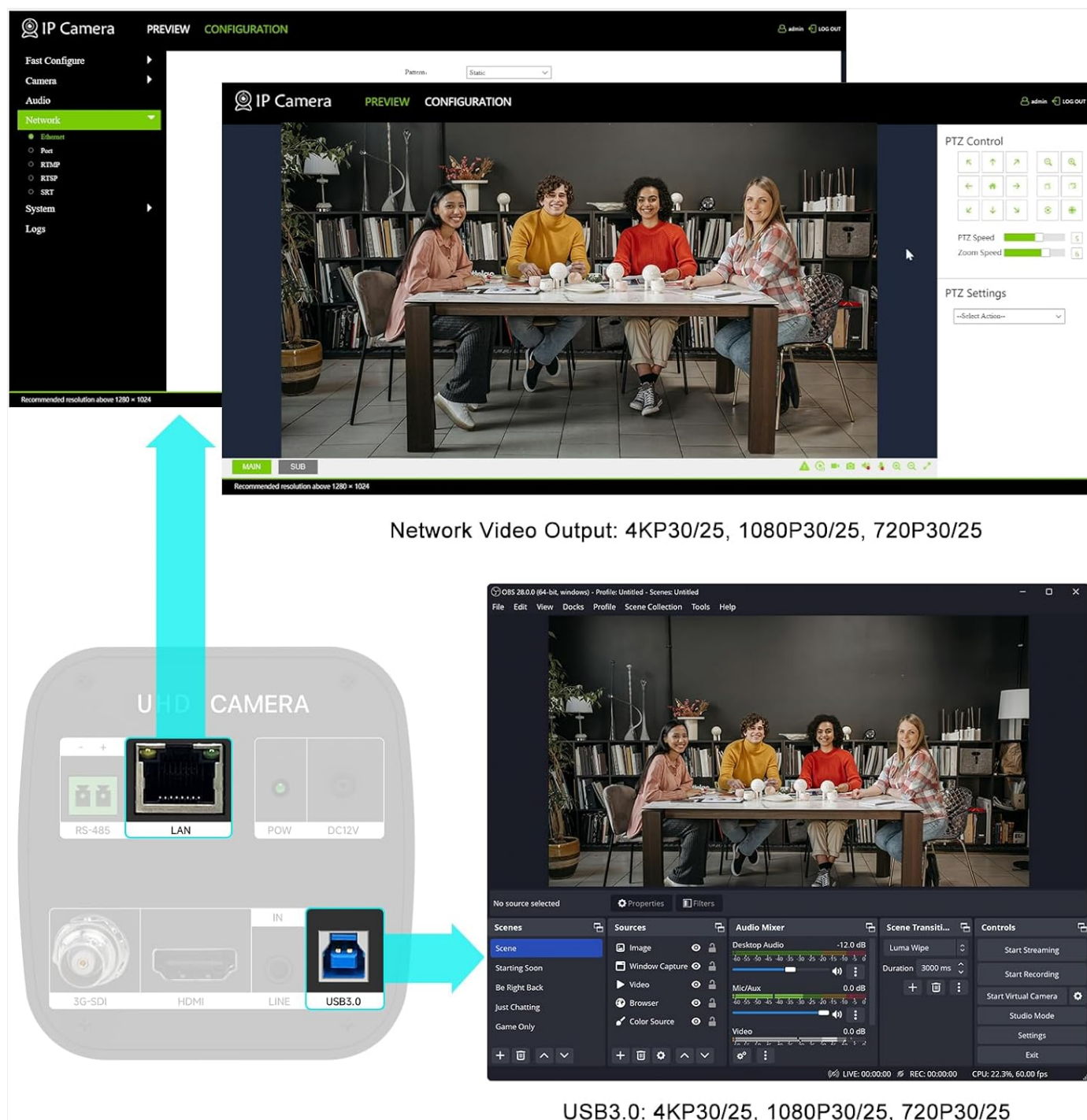


Figure 5.5.1: Illustrates connecting the camera via LAN for web interface control (default IP: 192.168.1.123) and via USB3.0 for streaming with software like OBS, showing supported resolutions.

- **Network Access:** Connect the camera to your network via the LAN port. The default IP address for web interface access is **192.168.1.123**. Use a web browser to access camera settings and control.
- **USB 3.0 Streaming:** Connect the camera to a computer via the USB 3.0 port. The camera will be recognized as a video input device. Compatible with streaming software such as OBS, vMix, Zoom, and Teams.

6. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the camera body. Do not use liquid or aerosol cleaners.
- **Lens Care:** For the lens, use a specialized lens cleaning cloth and solution. Avoid touching the lens surface directly.
- **Storage:** When not in use, store the camera in a cool, dry place, away from dust and direct sunlight.

7. TROUBLESHOOTING

Common Issues and Solutions

Problem	Possible Cause	Solution
No power	Power adapter not connected or faulty.	Ensure power adapter is securely connected to the camera and a working power outlet. Test with another outlet if possible.
No video output	Incorrect cable connection; wrong input selected on display/switcher; camera not powered on.	Check HDMI, SDI, USB, or LAN cable connections. Verify the display/switcher is set to the correct input source. Confirm the camera is powered on.
Poor image quality	Lens is dirty; incorrect focus; insufficient lighting.	Clean the lens with a soft cloth. Adjust focus using MF/AF and L+/L- buttons. Ensure adequate lighting in the environment.
No network connection	LAN cable disconnected; incorrect IP settings; router issue.	Verify the LAN cable is securely connected. Check network settings and ensure the camera's IP address (default 192.168.1.123) is accessible on your network.
No audio input	Microphone not connected; audio settings on receiving device.	Ensure the microphone is properly connected to the 'LINE IN' port. Check audio input settings on your computer or streaming software.

8. SPECIFICATIONS

Feature	Specification
Sensor	1/2.8-inch Exmor R CMOS
Effective Pixels	8.42 Million
Video Resolution	4K UHD (3840x2160)
Frame Rate (4K)	Up to 30fps
Frame Rate (1080P)	Up to 60fps
Optical Zoom	20x (f=5.5-110mm)
Digital Zoom	12x
Video Outputs	HDMI, 3G-SDI, USB 3.0, LAN (Simultaneous)
Audio Input	Line In
Control Interface	RS-485, LAN
Power Supply	DC12V 2A

Feature	Specification
Item Weight	2.2 pounds (approx. 1 kg)
Focus Type	Manual Focus, Auto Focus
Connectivity Technology	Ethernet, USB

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or contact SDTNOVA customer service through their official channels. Keep your purchase receipt for warranty claims.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

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

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question