

## Tenveo TEVO-VHD20UA

# Tenveo VHD20UA PTZ Conference Camera User Manual

Model: TEVO-VHD20UA

## 1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Tenveo VHD20UA PTZ Conference Camera. Please read this manual thoroughly before using the product to ensure proper setup and optimal performance. Keep this manual for future reference.

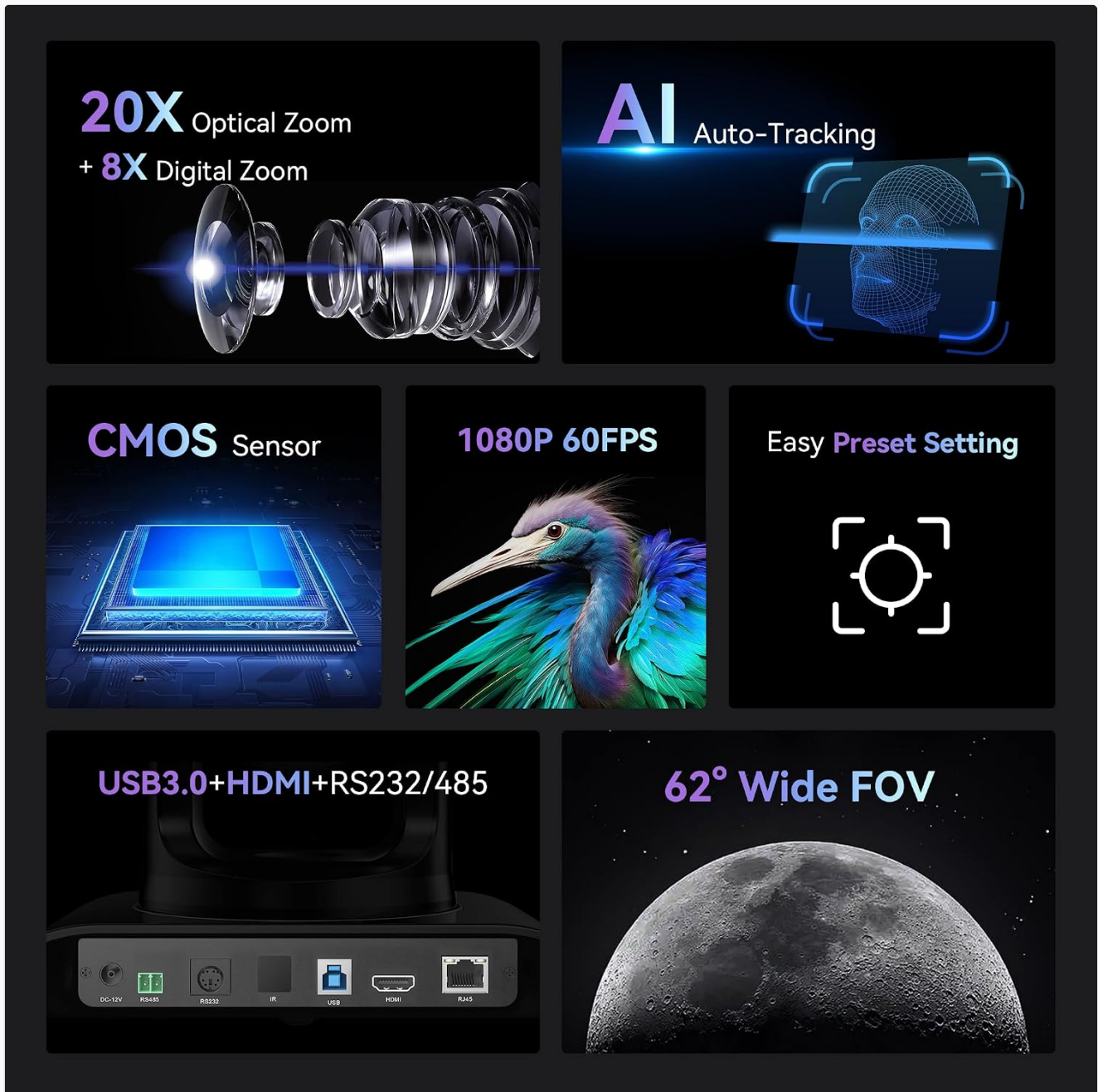
## 2. PRODUCT OVERVIEW

The Tenveo VHD20UA is a high-definition PTZ (Pan-Tilt-Zoom) camera designed for professional video conferencing, live streaming, and tele-medicine applications. It features a 20x optical zoom, 1080p Full HD resolution at 60 frames per second, and multiple connectivity options including HDMI and USB 3.0.

### Key Features

- **Full HD 1080p 60fps:** Delivers crisp, clear video quality for professional presentations and meetings.
- **20x Optical Zoom & 8x Digital Zoom:** Allows for detailed close-ups of participants or objects without loss of clarity.
- **AI Auto-Tracking:** Intelligent framing and presenter tracking capabilities ensure subjects remain in focus and within the frame automatically.
- **Wide Field of View:** A 62° wide field of view captures more of the meeting space.
- **Multiple Connectivity:** Supports HDMI, USB 3.0, RS-232, and RS-485 for versatile integration with various systems.
- **Infrared Remote Control:** Easy control over pan, tilt, zoom, and preset settings.

- **255 Presets:** Store and recall up to 255 camera positions for quick scene changes.
- **Universal Compatibility:** Works seamlessly with popular video conferencing platforms like Zoom, Webex, Google Meet, Microsoft Teams, and more.



**Figure 2.1:** Overview of Tenveo VHD20UA PTZ Camera key features, including 20x optical zoom, 8x digital zoom, AI auto-tracking, CMOS sensor, 1080p 60fps video, easy preset settings, USB3.0, HDMI, RS232/485 connectivity, and a 62° wide field of view.

## 3. SETUP

### 3.1 Unpacking and Inspection

Carefully remove all components from the packaging. Verify that all items listed in the packing list are present and undamaged. If any items are missing or damaged, contact Tenveo support immediately.

### 3.2 Physical Installation

The Tenveo VHD20UA camera offers flexible installation options to suit various environments. Choose the method

that best fits your setup requirements.

- **Desktop Placement:** Place the camera on a stable, flat surface. Ensure it is positioned to capture the desired area.
- **Tripod Mounting:** The camera includes a standard tripod mount for use with compatible tripods.
- **Wall Mounting:** Use the provided wall mount bracket (if included) and appropriate hardware to secure the camera to a wall. Ensure the wall can support the camera's weight.
- **Ceiling Mounting:** For inverted installation, use a compatible ceiling mount bracket. Remember to adjust the image flip setting in the camera menu if mounted upside down.

**CLIMATE PLEDGE FRIENDLY**

## Various Installation Methods

Ceiling

Wall

Tripod

Desktop

### Universal Compatibility

Microsoft Teams, Windows, Android, Apple, Facebook, BlueJeans, Chrome, Cisco Webex, WhatsApp, YouTube, Zoom, GoToMeeting

**Figure 3.1:** Various installation methods for the Tenveo VHD20UA PTZ Camera, including ceiling, wall, desktop, and tripod mounting options, demonstrating its adaptability to different environments.

### 3.3 Connecting the Camera

The VHD20UA camera supports multiple connection types for video output and control. Refer to the diagram below for connection points.

1. **Power Supply:** Connect the included power adapter to the DC 12V input port on the camera and then to a power outlet.
2. **USB 3.0 Connection:** For direct connection to a computer for video and audio, use a USB 3.0 cable to connect the camera's USB port to your computer's USB 3.0 port. This provides 1080p 60fps video output.
3. **HDMI Connection:** Connect an HDMI cable from the camera's HDMI output port to an HDMI input on a display, video switcher, or capture card.
4. **RS-232/RS-485 Control:** For external control systems (e.g., joystick controllers, automation systems), connect the appropriate control cable to the RS-232 or RS-485 ports.
5. **RJ45 (LAN) Connection:** Connect an Ethernet cable for IP streaming and control (if supported by your specific model and firmware).



**Figure 3.2:** Detailed view of the Tenveo VHD20UA PTZ Camera's rear panel, illustrating various connection options including power supply, RS232/485, IR, USB 3.0, HDMI, and RJ45 ports, along with examples of connected devices like a PC, smart TV, video switcher, and serial joystick.

## 4. OPERATING INSTRUCTIONS

## 4.1 Basic Camera Control (Remote Control)

Use the included infrared remote control to operate the camera's basic functions.

- **Power On/Off:** Press the power button to turn the camera on or off.
- **Pan/Tilt:** Use the directional arrows to move the camera horizontally (pan) and vertically (tilt). The camera supports 350° pan and 180° tilt.
- **Zoom:** Use the '+' and '-' buttons to zoom in (telephoto) or zoom out (wide-angle). The camera features 20x optical zoom and 8x digital zoom.
- **Focus:** Adjust focus manually using the dedicated focus buttons, or enable auto-focus.



**Figure 4.1:** The Tenveo VHD20UA PTZ Camera demonstrating its pan (350°) and tilt (180°) capabilities, along with 20x optical zoom, 8x digital zoom, and a 62° wide angle field of view in a conference room setting.

## 4.2 Preset Settings

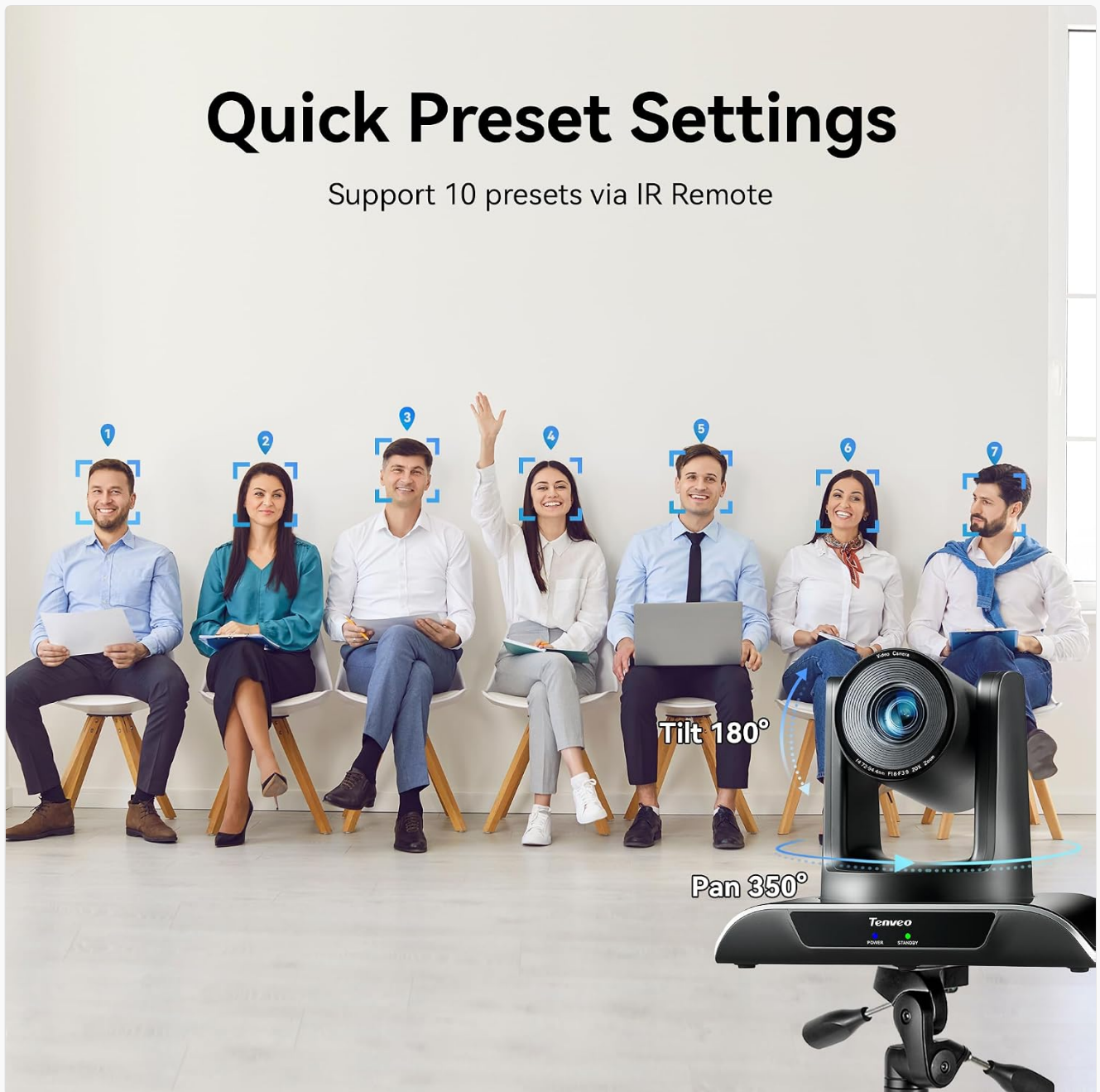
The camera allows you to save and recall up to 255 preset positions, with quick access to 10 presets via the IR remote.

### 1. Setting a Preset:

- Position the camera to the desired pan, tilt, and zoom level.
- Press the **SET** button on the remote.
- Press a number button (0-9) to assign the current position to that preset number.

### 2. Recalling a Preset:

- Press the desired number button (0-9) on the remote. The camera will move to the saved position.



**Figure 4.2:** Illustration of the Tenveo VHD20UA PTZ Camera's quick preset settings feature, allowing users to save and recall up to 10 camera positions using the IR remote control, demonstrating pan (350°) and tilt (180°) capabilities.

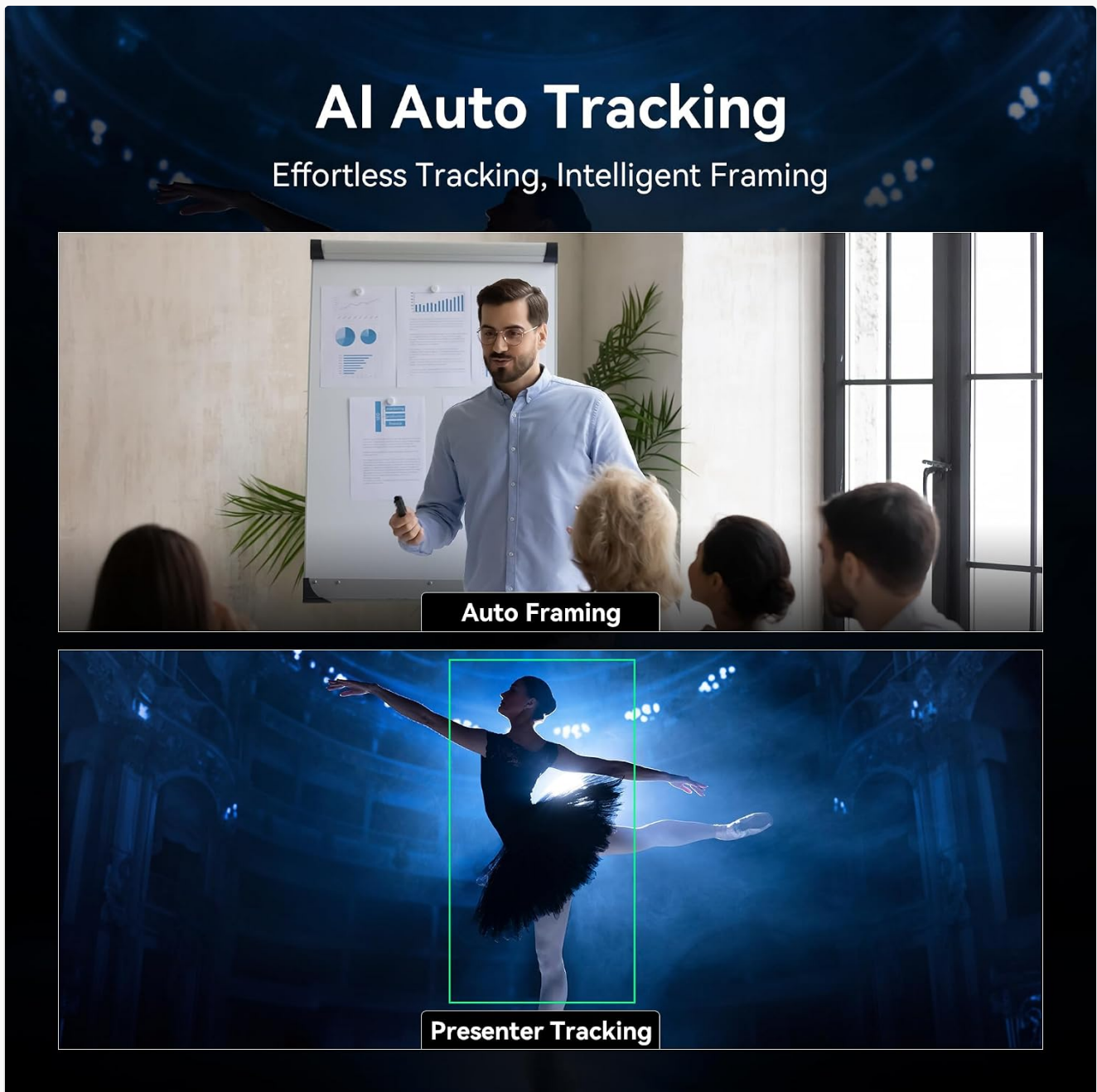
## 4.3 AI Auto-Tracking and Framing

The VHD20UA camera features advanced AI capabilities for automatic subject tracking and framing.

- **Auto Framing:** The camera intelligently adjusts its pan, tilt, and zoom to frame all participants within the view.
- **Presenter Tracking:** The camera can automatically follow a designated presenter as they move within the

defined area, keeping them centered in the frame.

Refer to the camera's on-screen display (OSD) menu or advanced control software for specific settings and activation of AI features.



**Figure 4.3:** Demonstration of the Tenveo VHD20UA PTZ Camera's AI Auto Tracking feature, showcasing both Auto Framing to include all participants and Presenter Tracking to follow a single speaker.

## 5. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your Tenveo VHD20UA camera.

- **Cleaning the Lens:** Use a soft, dry microfiber cloth to gently wipe the camera lens. Avoid using harsh chemicals or abrasive materials that could scratch the lens.
- **Cleaning the Camera Body:** Wipe the camera's exterior with a soft, damp cloth. Do not use liquid cleaners directly on the camera.
- **Firmware Updates:** Periodically check the Tenveo website for firmware updates. Keeping your camera's firmware up-to-date can improve performance and add new features.

- **Storage:** When not in use for extended periods, store the camera in a clean, dry environment, away from direct sunlight and extreme temperatures.

## 6. TROUBLESHOOTING

If you encounter issues with your Tenveo VHD20UA camera, refer to the following common problems and solutions.

Problem	Possible Cause	Solution
No video output	<ul style="list-style-type: none"> <li>• Power cable disconnected</li> <li>• Incorrect input selected on display</li> <li>• Faulty HDMI/USB cable</li> <li>• Driver issue (USB)</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure power is connected and indicator light is on.</li> <li>• Select the correct HDMI or USB input on your display/computer.</li> <li>• Try a different cable.</li> <li>• Reinstall or update USB drivers on your computer.</li> </ul>
Remote control not working	<ul style="list-style-type: none"> <li>• Batteries are dead or incorrectly inserted</li> <li>• Obstruction between remote and camera IR receiver</li> <li>• Remote control not paired (if applicable)</li> </ul>	<ul style="list-style-type: none"> <li>• Replace batteries and ensure correct polarity.</li> <li>• Ensure a clear line of sight to the camera's IR receiver.</li> <li>• Refer to the remote control manual for pairing instructions.</li> </ul>
Camera movement is jerky or unresponsive	<ul style="list-style-type: none"> <li>• Loose mounting</li> <li>• Interference with control signals</li> <li>• Firmware issue</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure the camera is securely mounted.</li> <li>• Minimize electromagnetic interference.</li> <li>• Check for and apply any available firmware updates.</li> </ul>
Poor image quality	<ul style="list-style-type: none"> <li>• Dirty lens</li> <li>• Insufficient lighting</li> <li>• Incorrect camera settings</li> </ul>	<ul style="list-style-type: none"> <li>• Clean the camera lens with a microfiber cloth.</li> <li>• Improve lighting in the environment.</li> <li>• Adjust exposure, white balance, and other image settings via the OSD menu or control software.</li> </ul>

## 7. SPECIFICATIONS

Below are the technical specifications for the Tenveo VHD20UA PTZ Conference Camera.

Feature	Detail
Model Number	TEVO-VHD20UA
Video Resolution	1080p Full HD (1920x1080) at 60fps
Effective Resolution	2.07 Megapixels
Optical Zoom	20x
Digital Zoom	8x

Feature	Detail
Pan Angle	350°
Tilt Angle	180°
Field of View (FOV)	62°
Max Focal Length	60.0 mm
Min Focal Length	10.0 mm
Max Aperture	f/1.8
Min Aperture	f/3.9
Focus Type	Auto Focus, Manual Focus
Video Output	HDMI, USB 3.0
Control Interface	RS-232, RS-485, Infrared Remote
Video Capture Format	MP4
Image Stabilization	Yes
Weight	1.37 Kilograms
Power Supply	DC 12V (Adapter included)

## 8. SUPPORT

For technical assistance, warranty inquiries, or any questions regarding your Tenveo VHD20UA camera, please contact Tenveo customer support.

**Customer Support Email:** [tenveo\\_amazon@tenveo.com](mailto:tenveo_amazon@tenveo.com)

Support is available 24/7 via email.

