

Hall Research HT-CAM-4K-DUAL

Hall Technologies HT-CAM-4K-DUAL Dual Lens 4K PTZ Camera User Manual

Model: HT-CAM-4K-DUAL

INTRODUCTION

The Hall Technologies HT-CAM-4K-DUAL is a sophisticated 4K dual-lens tracking camera designed for medium-sized meeting environments. It provides a comprehensive view of the room while simultaneously offering detailed, zoomed-in perspectives. Equipped with artificial intelligence (AI), the camera automatically adjusts pan, tilt, and zoom to frame all participants effectively or track a presenter, maintaining a wide fixed view of the room with picture-in-picture (PIP) capabilities.

WHAT'S IN THE BOX

Verify that all items listed below are included in your package:

- 1x HT-CAM-4K-DUAL 4K Dual Camera
- 1x IR Remote Control
- 1x USB 3.0 Type-B to Type-A Cable, 3m (9.8ft)

KEY FEATURES

- Supports video resolutions up to 4K@30fps via USB 3.0.
- Integrated dual-eye camera system with a panoramic lens for real-time participant detection.
- PTZ (Pan-Tilt-Zoom) camera for optimal framing of individuals or groups.
- 4K 3x optical zoom PTZ camera with a 110° Field of View (FOV).
- Panoramic lens with a 120° FOV.
- AI-powered auto framing, speaker tracking, and presenter tracking functionalities.
- Dual-lens design provides simultaneous speaker view and wide-angle view with Picture-in-Picture (PIP) layout options.
- Supports MJPG, NV12, H.265, and H.264 video compression formats.

- Easy setup with USB plug-and-play functionality.
- Compatible with Windows 10/11, Mac OS, Google Meet, Microsoft Teams, Skype, and other collaboration platforms.

SETUP INSTRUCTIONS

1. Physical Placement

Position the HT-CAM-4K-DUAL camera in a central location within your meeting room, ensuring an unobstructed view of all participants. The camera can be placed on a flat surface or mounted using compatible accessories (sold separately).



Figure 1: Front view of the HT-CAM-4K-DUAL camera, displaying its dual lens configuration.

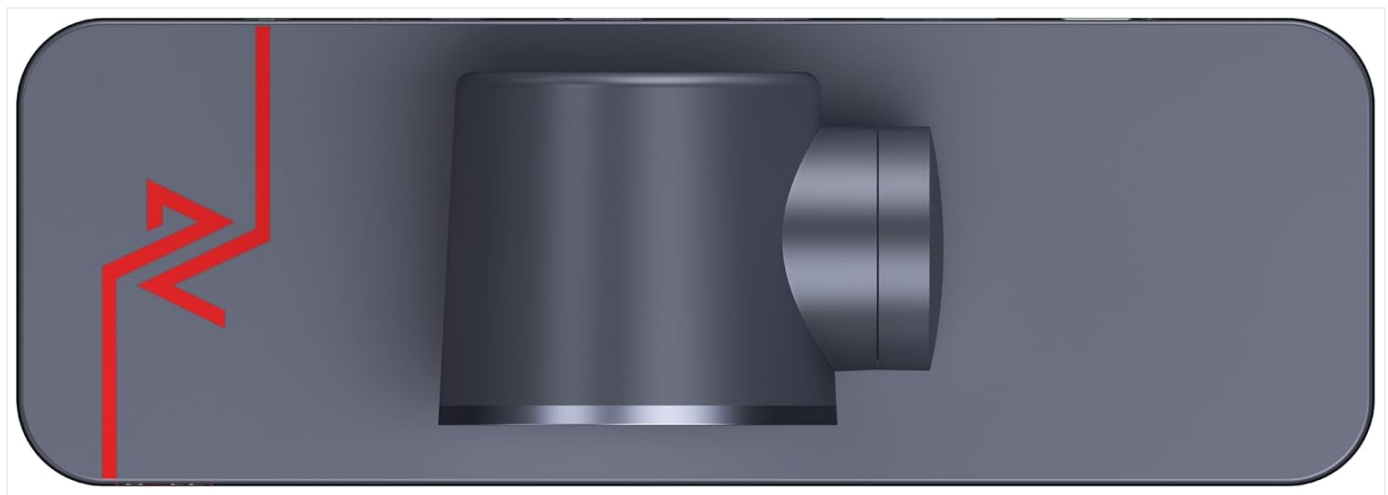


Figure 2: Top view of the HT-CAM-4K-DUAL camera.

2. Connecting the Camera

Connect the camera to your computer or video conferencing system using the provided USB 3.0 cable. The camera also supports Ethernet and HDMI connectivity for various integration scenarios.



Figure 3: Rear panel connections of the HT-CAM-4K-DUAL camera, detailing available ports.

- **Power:** Connect a 12V power adapter (not included) to the 12V input port.
- **USB:** Use the supplied USB 3.0 Type-B to Type-A cable to connect the camera to your host computer. This provides video, audio, and control.
- **LAN:** Connect an Ethernet cable for network control and potential video streaming.
- **HDMI OUT:** Connect an HDMI cable to a display for direct video output.
- **TYPE-C:** This port may be used for additional connectivity or service.
- **RESET:** Use a small, pointed object to press this button to restore factory default settings.

3. Driver Installation

The HT-CAM-4K-DUAL is designed for plug-and-play operation. No specific drivers are typically required for Windows 10/11 or Mac OS. Your operating system should automatically detect and install the necessary generic drivers upon connection.

4. System Integration Example

The HT-CAM-4K-DUAL can be integrated into various conferencing and AV systems. Below is an example diagram illustrating how the camera might connect with other Hall Technologies components for a comprehensive setup.



Figure 4: Example system integration diagram for the HT-CAM-4K-DUAL.

OPERATING INSTRUCTIONS

1. Basic Operation

Once connected, the camera will be recognized by your video conferencing software (e.g., Google Meet, Microsoft Teams, Skype). Select the HT-CAM-4K-DUAL as your preferred camera and microphone source within the application settings.

2. AI Tracking Features

The camera utilizes AI technology for enhanced meeting experiences:

- **Auto Framing:** The camera automatically adjusts its view to include all participants in the frame, ensuring no one is left out.
- **Speaker Tracking:** When enabled, the camera will automatically focus on the active speaker, providing a clear view of who is talking.
- **Presenter Tracking:** Ideal for presentations, this mode tracks a designated presenter as they move within the defined area.

These modes can typically be toggled or configured via the included IR remote control or dedicated software (if available).

3. Dual-Lens and Picture-in-Picture (PIP)

The dual-lens design allows for simultaneous display of a wide-angle room view and a zoomed-in speaker view. PIP

layout options enable you to customize how these two views are presented on your display.

4. Using the IR Remote Control

The included IR remote control provides direct access to PTZ functions, AI tracking mode selection, and other camera settings. Refer to the remote control's specific button layout for detailed functions.

MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the camera body. For lenses, use a specialized lens cleaning cloth and solution. Avoid abrasive cleaners or solvents.
- **Environment:** Operate the camera in a clean, dry environment, away from direct sunlight, excessive heat, or moisture.
- **Firmware Updates:** Periodically check the Hall Research website for any available firmware updates to ensure optimal performance and access to new features.

TROUBLESHOOTING

Problem	Possible Cause	Solution
No video output	Power not connected USB/HDMI cable loose or faulty Camera not selected in software	Ensure power adapter is securely connected. Check and re-seat all cables. Try a different cable. Verify the camera is selected as the video source in your conferencing application.
AI tracking not working	Feature disabled Poor lighting conditions Obstructions in view	Ensure AI tracking modes are enabled via remote control or software. Improve room lighting. Remove any objects blocking the camera's view of participants.
Remote control unresponsive	Low battery Obstruction between remote and camera	Replace batteries in the IR remote control. Ensure a clear line of sight between the remote and the camera's IR receiver.

SPECIFICATIONS

Feature	Detail
Model Number	HT-CAM-4K-DUAL
Brand	Hall Research
Video Capture Resolution	4K (up to 4K@30fps)
Photo Sensor Technology	CMOS
Photo Sensor Size	1/2.8 inches
PTZ Camera FOV	110°

Feature	Detail
Panoramic Lens FOV	120°
Optical Zoom	3x
Connectivity Technology	USB 3.0, Ethernet, HDMI
Video Capture Format	MJPEG, NV12, H.265, H.264
Special Features	AI Auto Framing, Speaker Tracking, Presenter Tracking, Dual Lens, Picture-in-Picture
Included Components	4K Dual Camera, IR Remote Control, USB 3.0 Cable (3m)
Package Dimensions	14 x 6 x 5 inches

WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official Hall Research website or contact their customer service department. Keep your purchase receipt for warranty claims.

Hall Research Contact Information: Please visit www.hallresearch.com for the latest support resources and contact details.

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