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› AVIDEONE PTZ-20XPW PTZ Camera User Manual

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AVIDEONE PTZ-20XPW PTZ Camera User Manual

20X Optical Zoom, HDMI/SDI/IP Outputs, PoE Live Streaming

INTRODUCTION

Thank you for choosing the AVIDEONE PTZ-20XPW PTZ Camera. This manual provides detailed instructions for the installation, operation, and maintenance of your new camera. Designed for professional video conferencing, live streaming, and broadcasting, this camera features a 20x optical zoom, multiple output options including HDMI, SDI, and IP, and Power over Ethernet (PoE) support for simplified setup.

SAFETY INFORMATION

- Ensure the camera is installed in a stable location to prevent falls.
- Do not expose the camera to moisture or extreme temperatures.
- Use only the provided power adapter.
- Avoid direct exposure of the lens to strong light sources to prevent damage to the image sensor.
- Do not attempt to disassemble or modify the camera. Refer all servicing to qualified personnel.

PACKAGE CONTENTS

Verify that all items are present in the package:

- PTZ Camera with 20x Optical Zoom (White) x1
- Camera Wall Mount Bracket (White) x1
- Camera Ceiling Mount Bracket (White) x1
- Remote Controller x1
- RS-232 Interface Cable x1
- Power Adapter x1

PRODUCT OVERVIEW

The AVIDEONE PTZ-20XPW camera is equipped with a 1/2.8-inch HD CMOS sensor, delivering 1080p resolution at 60fps. It supports various control protocols and offers flexible mounting options.



Figure 1: Front and rear view of the AVIDEONE PTZ-20XPW camera, showing the lens, base, and various input/output ports, along with the included remote control.

FULL HD PTZ CAMERA

- 1/2.8" HD CMOS Sensor, 20X Optical Zoom
- HDMI & 3G-SDI Video Output, PoE Power
- RS-232/RS-485 Serial Control, Cascading
- Streaming Protocols: RTSP, RTMP, SRT
- Control Protocols: Onvif, VISCA over IP, VISCA, PELCO-D/P
- Tripod, Wall & Ceiling Mounting



Figure 2: Key features of the PTZ camera, including 1/2.8" HD CMOS Sensor, 20X Optical Zoom, HDMI & 3G-SDI Video Output, PoE Power, RS-232/RS-485 Serial Control, Cascading, Streaming Protocols (RTSP, RTMP, SRT), Control Protocols (Onvif, VISCA over IP, VISCA, PELCO-D/P), and Tripod, Wall & Ceiling Mounting compatibility.

SETUP

Mounting Options

The PTZ-20XPW camera offers versatile mounting solutions to suit various environments:

- **Tripod Mounting:** Attach the camera to a standard tripod using the threaded insert on the base.
- **Wall Mounting:** Use the provided wall mount bracket to secure the camera to a vertical surface. Ensure the wall can support the camera's weight.
- **Ceiling Mounting:** Utilize the provided ceiling mount bracket for inverted installation. The camera's image can be flipped digitally in the settings if needed.



Figure 3: Illustration of the camera mounted on a tripod, wall, and ceiling, demonstrating its flexible installation capabilities.

Connections

Connect the camera using the appropriate cables for your setup:

- **Power:** Connect the included power adapter to the DC 12V input. Alternatively, use a PoE-enabled network switch or injector for power via the LAN port.
- **Video Outputs:**
 - **HDMI:** Connect an HDMI cable for high-definition video output.
 - **SDI:** Connect an SDI cable for professional broadcast-quality video output.
 - **IP (LAN):** Connect an Ethernet cable to the LAN port for IP video streaming and PoE power.
- **Control:**
 - **LAN:** Control the camera over the network using IP protocols.
 - **RS-232:** Use the provided RS-232 cable for serial control.

- **RS-485:** Connect via RS-485 for serial control, often used in multi-camera setups.

OPERATING INSTRUCTIONS

Basic Operation (Pan, Tilt, Zoom)

Use the included remote controller or a compatible joystick controller to manipulate the camera's movement and zoom:



Figure 4: The PTZ camera shown alongside a professional joystick controller, illustrating the ease of controlling pan, tilt, and zoom functions.

- **Pan:** Move the camera horizontally (left/right).
- **Tilt:** Move the camera vertically (up/down).
- **Zoom:** Adjust the optical zoom from 1x to 20x to capture wide-angle or close-up shots.

Zoom Lens Optional

1×



20×



Figure 5: Visual comparison demonstrating the range of the 20x optical zoom, showing a wide 1x view and a magnified 20x view of a distant object.

Image Controls

The camera offers advanced picture controls for optimal image quality:

- **Brightness:** Adjust the overall luminance of the image.
- **Color:** Modify the color intensity.
- **Saturation:** Control the vividness of colors.
- **Contrast:** Adjust the difference between light and dark areas.
- **Sharpness:** Enhance the clarity of image details.

Control Protocols and Live Streaming

The camera supports industry-standard protocols for seamless integration:

- **Control Protocols:** VISCA, VISCA over IP, PELCO-D/P. These protocols allow for remote control from various devices and software.
- **Streaming Protocols:** RTSP, RTMP, SRT. These protocols enable live streaming to platforms and servers. Refer to your streaming software documentation for configuration details.

MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the camera body. For the lens, use a specialized lens cleaning cloth and solution.
- **Storage:** When not in use for extended periods, store the camera in a cool, dry place, away from direct sunlight and dust.
- **Firmware Updates:** Check the AVIDEONE official website periodically for firmware updates to ensure optimal performance and access to new features.

TROUBLESHOOTING

Problem	Possible Cause	Solution
No video output	Incorrect cable connection; Power issue; Incorrect output settings.	Check HDMI/SDI/LAN cable connections. Ensure power adapter is connected. Verify output resolution and format settings.
Camera not responding to control	Incorrect control protocol; IP address conflict; Cable issue.	Verify control protocol (VISCA, PELCO-D/P, VISCA over IP). Check IP address and network settings. Ensure RS-232/RS-485 cables are correctly wired.
Image is blurry or out of focus	Lens is dirty; Auto-focus issue; Incorrect manual focus.	Clean the lens. Try resetting the camera or re-engaging auto-focus. Adjust manual focus if applicable.

SPECIFICATIONS

Feature	Detail
Brand	AVIDEONE
Model Number	PTZ-20XPW
Item Weight	4.85 pounds
Product Dimensions	6.7 x 7.1 x 6.7 inches
Photo Sensor Technology	CMOS
Video Capture Resolution	1080p
Optical Zoom	20x
Maximum Focal Length	129 Millimeters

Feature	Detail
Minimum Focal Length	1.6 Millimeters
Maximum Aperture	4.7 f
Camcorder Type	Video Camera

WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the warranty card included with your product or visit the official AVIDEONE website. You can also contact AVIDEONE customer service directly for assistance with product registration, troubleshooting, and service requests.

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