

A & E Specification

RoboSHOT 20 UHD

High Performance, Ultra High Definition PTZ Camera

North America: 999-9950-000 (silver/black), 999-9950-000W (white)

International: 999-9950-001 (silver/black), 999-9950-001W (white)

Description

The camera shall be designed for use in UHD or HD environments such as higher education, corporate broadcast, and houses of worship. It shall provide enterprise-class features including IP streaming and network control via web interface. It shall also support remote automation via a command line API that can be accessed via RS-232 or Telnet session.

The camera optics shall feature a 12x optical zoom lens with seamless transition to 1.67x digital zoom, for a total zoom range of 20x. The camera shall use a 1/2.3-type, high-speed, low noise, back-illuminated CMOS sensor with 9.03 total megapixels, producing native 2160p/30 (3840 x 2160) video images without scaling.

The camera shall provide simultaneous HDBT, HDMI, and HD-SDI outputs, plus IP streaming.

The camera shall use a dual-arm mount with silent, brushless DC direct drive motors for accurate camera positioning and smooth motion, providing pan and tilt speeds from 0.35° to 120° per second.

The camera body shall incorporate an indicator to show camera status and IR sensors built into the front, to receive IR signals from a handheld IR remote control.

The camera shall be compatible with Vaddio camera controllers, mixers, and other equipment.



Configuration and Control

It shall be possible to control the camera using a handheld IR remote control, a browser-based graphical user interface, or via command line using Telnet or a serial RS-232 connection.

A handheld IR remote control shall be included with the camera. It shall be possible to program the remote to control up to three cameras.

The web-based graphical user interface shall provide full physical and administrative control of the camera. It shall be accessed through commonly used web browsers including the current and next most recent versions of Chrome®, Firefox®, Safari®, Internet Explorer®, and Microsoft® Edge.

Installation Requirements

The camera shall be designed to attach to a wall or ceiling mount in an indoor environment. A wall mounting shelf shall be provided with the camera.

The camera shall support inverted operation with image flip and inversion of pan and tilt controls.

The camera shall use standard Cat-5e/Cat-6/Cat-7 cables for network and RS-232 serial connections. Maximum cable length for Cat-5e cables shall be 328 ft (100m).

Specifications

Video and Image

Outputs/protocols	HDMI, HDBT, HD-SDI, IP (H.264)	Aspect ratio	HDMI: 16:9 (all resolutions) IP (H.264) Streaming: 16:9, 3:2 and 4:3
HDMI resolutions/frame rates	QFHD: 2160p/30/25 (3840 x 2160) FHD: 1080p/59.94/50/29.97/25, 1080i/59.94/50 HD: 720p/59.94/50	3Gb/s HD-SDI resolutions/frame rates	FHD: 1080p/59.94/50/29.97/25, 1080i/59.94/50 HD: 720p/59.94/50
Streaming	Simultaneous IP (RTSP format with H.264 compression) up to 1080p/30		

Camera

Image device	1/2.3-Type Exmor R High-speed, Low-noise CMOS Sensor		
Pixels	9.03 Megapixels Total, 8.93 Effective Megapixels		
Zoom	12X optical zoom, 1.67X digital zoom; combined total 20X zoom		
Minimum illumination	3.0 lx (F1.8, 50IRE) color; recommended 100+ lux		
Horizontal FOV	72° (wide) to 4.8° (tele)	Min. working distance	10 mm (wide), 1500 mm (tele)
Pan angle and speed	±160°, 0.35°/sec to 120°/sec	Tilt angle and speed	+90, -30°, 0.35°/sec to 120°/sec
Gain	Auto / Manual (0 to 33 dB)	Aperture/detail	16 Steps
Focusing system	Auto Focus / Manual Focus Mode / One Push Trigger Mode		
White balance	Auto, ATW, Indoor, Outdoor, One-push, Manual		
Backlight compensation	On/off	Sync system	Internal
Noise reduction	6 steps	S/N ratio	Over 50 dB
Control and management	Vaddio IR Remote Commander, web interface (Chrome, Firefox, Safari, Internet Explorer, Microsoft Edge), Telnet, RS-232 API (modified VISCA)		
Power	12 VDC, 3.0 Amp power supply; LTPoE++		

Physical and Environmental

Height	7.9 in (200 mm)	Operating temperature	-5 °C to +60°C (23°F to 140°F)
Width	8.0 in (203 mm)	Operating humidity	20% to 80% RH (non-condensing)
Depth	7.7 in (196 mm)	Storage temperature	-20° to +60° C (-4°F to 140°F)
Weight	6 lbs (2.7 kg)	Storage humidity	20% to 95% RH (non-condensing)