

UV510G Series HD Camera



The Information Communication HD Camera Series features comprehensive functionality, excellent performance, and rich interfaces. Advanced ISP processing technology and algorithms produce vivid and realistic image effects, uniform brightness, strong light and color depth, high clarity, and excellent color reproduction. The camera supports H.265/H.264 encoding, which ensures smoother and clearer images even under low bandwidth conditions.

- **Full HD Imaging:** Equipped with a 1/2.8-inch, 2.07-megapixel high-quality image sensor, the camera supports a maximum resolution of 1920x1080 and can output up to 60 frames per second.
- **Multiple Optical Zoom Lenses:** Available in 12X, 20X, and 30X optical zoom lens options.
- **Leading Auto Focus Technology:** Advanced autofocus algorithms enable the lens to achieve fast, accurate, and stable focusing.
- **Low Noise and High Signal-to-Noise Ratio:** The low-noise CMOS sensor ensures a super-high signal-to-noise ratio for video. Advanced 2D and 3D noise reduction technologies further reduce noise while maintaining image clarity.
- **Multiple Video Output Interfaces:** Supports HDMI, SDI, USB, and wired LAN (POE+ function available). SDI supports transmission over 100 meters at 1080P60 resolution.
- **Multiple Audio and Video Compression Standards:** Supports H.265/H.264 video compression, as well as AAC and G.711A audio compression. Supports compression at up to 1920x1080 resolution and 60 frames per second.

- **Audio Input Interface:** Supports AAC and G.711A audio encoding. AAC encoding supports sample rates of 16000, 32000, 44100, and 48000 Hz, while G.711A encoding only supports 8000 Hz.
- **Multiple Network Protocols:** Supports ONVIF, GB/T28181, RTSP, SRT and RTMP protocols, NDI(Optional). RTMP push mode is supported for easy connection to streaming media servers (e.g., Wowza, FMS). RTP multicast mode is supported, as well as network full-command VISCA control protocol.
- **AI Dynamic Tracking:** Equipped with top-tier automatic tracking and framing technology, integrating face and human shape recognition algorithms. This feature provides tracking capabilities for environments such as meeting rooms, classrooms, and churches.
- **Control Interfaces:** RS485 and RS232 interfaces. RS232 supports cascading, making it easier for installation and use.
- **Multiple Control Protocols:** Supports VISCA, PELCO-D, and PELCO-P protocols, with automatic protocol recognition.
- **Super Silent PTZ:** Utilizes high-precision stepper motors and precise motor driver controllers to ensure smooth, noise-free PTZ (pan-tilt-zoom) operation at low speeds.
- **Low Power Sleep Function:** Supports low-power sleep/wake-up mode with power consumption below 400mW during sleep.
- **Built-in OLED Display:** Displays output resolution, IP address.
- **Multiple Preset Positions:** Supports up to 255 preset positions (10 presets available via remote control).
- **Multiple Remote Controllers:** Users can choose between infrared or wireless remote controls, depending on the environment. The 2.4G wireless remote control is unaffected by angle, distance, or infrared interference. It also supports remote signal pass-through for convenient use by backend equipment.
- **Wide Range of Applications:** Suitable for remote education, lecture recording, conference systems, remote training, telemedicine, courtroom systems, emergency command systems, and more.

Technical Specifications

Parameter/Model	12X(G0)	20X(G1)	30X(G2)
Equipment, lens parameters			
Image Sensor	1/2.8-inch high-quality CMOS sensor		
Effective pixel	2.07 million, 16: 9		

Video Signal	HDMI/SDI/LAN Interface video format: 1080P60/59.94/50/30/29.97/25; 720P60/59.94/ 50 USB Interface video format: YUY2/NV12:1920*1080/1280*720/1024*576/800*600/800*448/640*480/640*360/480*270/320*180P30/25/20/15/10/5 H264/H265/MJPG: 1920*1080/1600*896/1280*720/1024*576/960*540/800*600/800*448/720*576/720*480/640*480/640*360/352*288/320*240P60/50/30/25/20/15/10/5fps			
Optical Lens	Zoom	12X f=4.1~49.2mm	20X f=5.05~91.49mm	30X F=5.2~148.4mm
Field of View		6.72° (N) 70.4° (W)	3.81° (N) 60.04° (W)	2.14° (N) 58.1° (W)
Aperture Ratio		F1.8 – F2.68	F1.8 – F2.9	F1.3 – F4.8
Digital Zoom		16 X		
Minimum Illumination		0.5Lux(F1.8, AGC ON)		
Digital Noise Reduction		2D & 3D		
White Balance		Auto/Manual/One Touch White Balance/Specified Color Temperature (2400K-7100K, adjustable in 100K steps)		
Focus		Auto/Manual/One-Key Focus		
Aperture		Auto/Manual		
Electronic Shutter		Auto/Manual		
Backlight Compensation		On/Off		
Dynamic Range		Off/Dynamic Range Adjustment		

Video Adjustment	Parameters such as brightness, sharpness, saturation, contrast, white balance, anti-flicker, and low-light compensation are adjustable.
SNR	>50dB

Interface function performance	
Product Interfaces	HDMI, SDI, LAN(POE+ support), USB3.0, A-IN, RS232-IN, RS232-OUT, RS485, DC12V Power source
Video Output Interface	HDMI, SDI, LAN, USB3.0
Video Compression Format	LAN: H.264, H.265 USB 3.0: MJPG, H264, H.265, YUY2, NV12
Video Bitrate	64-40960
Bitrate Control	Fixed bitrate, variable bitrate.
Frequency	50Hz: 1fps ~ 50fps 60Hz: 1fps ~ 60fps
Audio Input Interface	Dual-channel 3.5mm linear input.
Audio Output Interface	HDMI, LAN, USB3.0, SDI
Audio Bitrate	96Kbps, 128Kbps
Audio Compression Format	AAC, G.711A
Network Interface	100M network port, POE+ power supply optional, supports audio and video output.
Network Protocol	RTSP, RTMP, ONVIF, GB/T28181,SRT, NDI(Optional); Supports network VISCA control protocol; Supports remote upgrade, remote restart, remote reset.
Control Interface	RS232-IN, RS232-OUT, RS485
Serial Communication Protocol	VISCA/Pelco-D/Pelco-P; Supports baud rate. 115200/38400/9600/4800/2400

USB Communication Protocol	UVC (Video Communication Protocol), UAC (Audio Communication Protocol)
Power Interface	HEC3800 power socket (DC12V)
Power Adapter	InputAC110V~AC220V ; Output DC12V/1.5A
Input Voltage	DC12V±10%
Input Current	≤1.2A
Total Power Consumption	≤13.8W

Pan-Tilt Parameters	
Pan Rotation	-170° ~ +170°
Tilt Rotation	-30° ~ +90°
Pan Control Speed	0.1°/s ~ 60°/s
Tilt Control Speed	0.1°/s ~ 30°/s
Preset Speed	Pan: 60°/s, Tilt: 30°/s
Number of Presets	Users can set up to 255 preset positions (10 via remote control)

Monocular Tracking	
Tracking Mode	Off, Real-time Tracking, Stage Tracking, Area Tracking, and Intelligent Framing
Tracking Distance	Maximum tracking distance up to 18 meters

Other Parameters	
Storage Temperature	-10°C ~ +70°C
Storage Humidity	20% ~ 95%
Working Temperature	-10°C ~ +50°C

Working Humidity	20% ~ 80%
Dimensions	151mm (L) *151mm (W) *181mm (H)
Weight (approx.)	1.4kg
Operating Environment	Indoor

Dimensions

