UV510 K0/ K1/ K2

The UV510K series of cameras comprises three 4K models that, despite being entry-level, offer comprehensive functionality, excellent performance, and a wide range of interfaces. Advanced ISP processing technology and algorithms produce vivid and realistic image effects, uniform brightness, high colour depth and luminance, high clarity, and excellent colour reproduction. The camera supports H.265/H.264 encoding, ensuring smoother and sharper images even under low-bandwidth conditions.

Ultra HD image: Adopts 1/2.8-inch 8.42-million-pixel high-quality image sensor, with a maximum resolution of 3840x2160 and an output frame rate of up to 60 frames per second.

Multiple optical zoom lenses: 12X, 20X, 30X optical zoom lenses are available.

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: support HDMI, SDI, USB, wired LAN (POE+ function optional); SDI supports 100 meters transmission in 1080P60 format.

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Multiple audio and video compression standards: support H.265/H.264 video compression, support AAC, G.711A audio compression; support up to 3840x2160 resolution 60 frames/second compression.

Audio input interface: Supports AAC and G.711A audio encoding. AAC encoding supports 16000, 32000, 44100, and 48000 sampling frequencies, while G.711A encoding only supports 8000 sampling frequency.

Multiple network protocols: support ONVIF, GB/T28181, RTSP, RTMP, SRT protocols, NDI(optional), Dante AV(optional); support RTMP push mode, easily connect to streaming media servers (Wowza, FMS); support RTP multicast mode, support network full command VISCA control protocol.

AI dynamic tracking: It has top-notch automatic tracking and frame selection technology, integrated with face and human shape recognition algorithms, and provides tracking functions for scenes such as conference rooms, classrooms and churches.

Control interface: RS485, RS232; RS232 supports cascading, which is convenient for engineering installation and use.

Multiple control protocols: support VISCA, PELCO-D, PELCO-P protocols, support automatic identification of protocols.

Super silent gimbal: Adopt high-precision stepper motor and precision motor drive controller to ensure the gimbal runs smoothly at low speed and without noise.

Built-in OLED Display: Displays output resolution, IP address.

Low-power sleep function: Supports low-power sleep/wake-up, and the power consumption is less than 400mW when in sleep mode.

Multiple preset positions: Supports up to 255 preset positions (remote control setting is 10).

Multiple remote controls: Users can choose infrared remote control (default model) or wireless remote control according to the environment conditions. 2.4G wireless remote control is not affected by angle, distance, and infrared interference. Supports remote control signal transparent transmission function, which is convenient for back-end equipment to use.

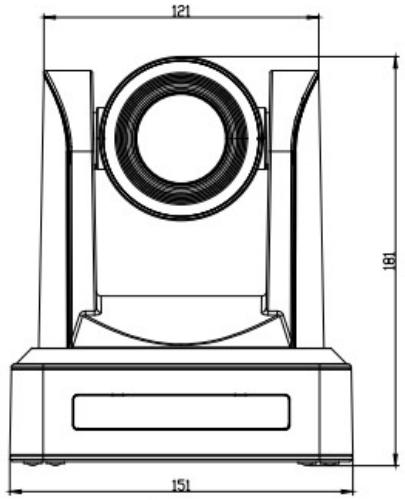
Multiple application scenarios: Distance education, teaching recording and broadcasting, conference system, remote training, telemedicine, court trial system, emergency command system, etc.

Technical Specifications

Equipment, lens parameters			
Optical Zoom	12X-UV510K0 12X-UV510K0 (NDI)	20XUV510K1 20XUV510K1N (NDI)	30XUV510K2 30XUV510K2N (NDI)
Digital Zoom	16X	16X	16X
Focal Length	f=4.1~49.2mm	f=5.05~91.49mm	f=5.2~148.4mm
FOV	7.5°～78.4°(D) 6.72°～70.4°(H) 3.76°～42.1°(V)	3.93°～67.35°(D) 3.81°～60.04°(H) 1.96°～35.07°(V)	2.48°～65.4°(D) 2.14°～58.1°(H) 1.2°～33.8°(V)
Aperture Ratio	F1.8 – F2.68	F1.8 – F2.9	F1.3 – F4.8
Image Sensor	1/2.8-inch-high quality CMOS sensor		
Effective pixel	8.42M 16:9		
Video Signal	HDMI: 3840x2160/1920x1080P60/59.94/50/30/29.97/25; 1280x720P60/59.94/50 SDI: 1920x1080P60/59.94/50/30/29.97/25;1920x1080I60/50/59.94; 1280x720P60/59.94/ 50 USB: YUY2/NV12: 1920x1080/1280x720/1024x576/800x600/800x448/640x480/ 640x360/480x270/320x180P30/25/20/15/10/5fps H264/H265/MJPG: 3840x2160/1920x1080/1600x896/1280x720/1024x576/960x540/ 800x600/800x448/720x576/720x480/640x480/640x360/480x270 /352x288/320x240@60/30/25/20/15/10/5fps LAN: Master Code Stream: H264/H265: 3840×2160/2592x1944/2304x1296/1920×1080/1280×720@60/3 0/25/20/15/10/5fps; Subcode Stream: H264/H265: 1920×1080/1280×720/640×360/640×480/320×240/320x180@60 /30/25/20/15/10/5fps;		
Minimum Illumination	0.5Lux (F1.8, AGC ON)		
Digital Noise Reduction	2D &3D		
White Balance	Auto/manual/one-key white balance/specified color temperature (2400K-7100K, adjustable in 100K steps)		
Focus	Auto/manual/one-button focus		
Aperture	Auto/manual		
Electronic Shutter	Auto/manual		
Backlight Compensation	On/Off		
Dynamic Range	Off/Dynamic Range Adjustment		

Video Adjustment	Brightness, Contrast, Sharpness, Horizontal Flip, Vertical Flip, Black and White Mode, Gamma Curve, Electronic Zoom, DCI, Ultra Low Light Mode
SNR	>50dB
Interface function performance	
Product Interfaces	HDMI, SDI, LAN (supports POE+), USB3.0, A-IN, RS232-IN, RS232-OUT, RS485, DC12Vpower supply, power switch
Video Compression Format	LAN: H.264, H.265 USB 3.0: MJPG, H.264, 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 line input.
Audio Output Interface	HDMI, LAN, USB3.0, SDI
Audio Bitrate	32Kbps, 48Kbps, 64Kbps, 96Kbps, 128Kbps
Audio Compression Format	AAC, G.711A
Network Interface	1000M Ethernet port, optional POE+ power supply, supports audio and video output
Network Protocol	RTSP, RTMP, ONVIF, GB/T28181, SRT; NDI(Optional), Dante AV(optional); supports network VISCAcontrol protocol; supports remote upgrade, remote reboot, and remote reset
Control Interface	RS232-IN, RS232-OUT, RS485
Serial Communication Protocol	VISCA/Pelco-D/Pelco-P; Supported baud rates: 115200/38400/9600/4800/2400
USB Communication Protocol	UVC (Video Communication Protocol) UAC (Audio Communication Protocol)
Power Interface	HEC3800 power socket (DC12V)
Power Adapter	Input AC110V~AC220V; Output DC12V/1.5A
Input Voltage	DC12V±10%
Input Current	≤1.5 A
Total Power Consumption	≤18 W

Dante AV-H	
Codec	H.264
Video Format	1920*1080/1280*720P60/50/30/25
Video Streaming	Unicast or multicast
Delay	≤120ms@1080p60
Bandwidth	4-8Mbps@1080p60
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 Modes	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℃ ~ +70℃
Storage Humidity	20% ~ 95%
Working Temperature	-10℃ ~ +50℃
Working Humidity	20% ~ 80%
Dimensions	150（L）mm×150mm（W）×167.5mm（H）
Weight (approx.)	1.4kg
Operating Environment	Indoors



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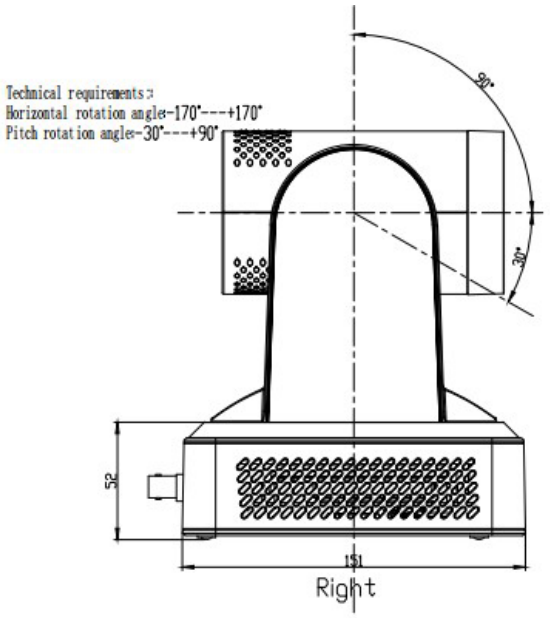

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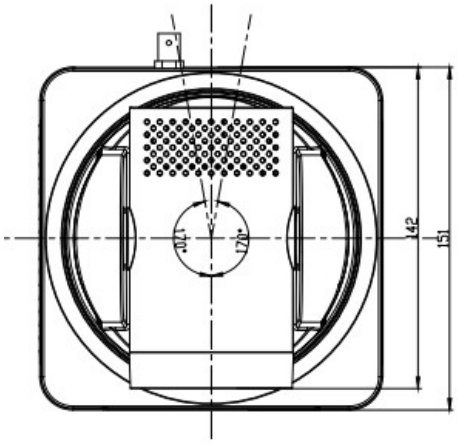

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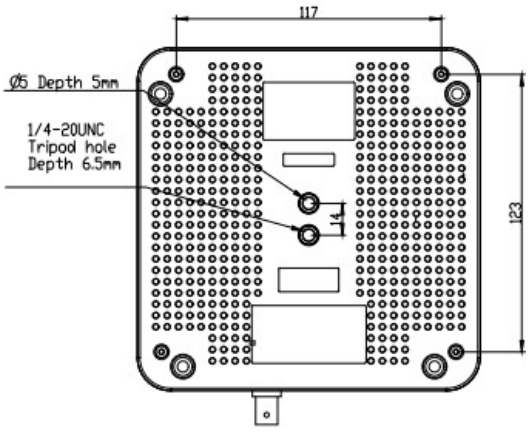

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