



Ultra HD 4K camera



SPECIFICATION

The Ultra HD 4K camera offers perfect functions, superior performance and rich interfaces. The features include advanced ISP processing algorithms to provide vivid images with a strong sense of depth, high resolution, and fantastic color rendition. It supports for H.265/H.264 coding, making the image smooth and clear even in lowbandwidth.

- **4K Ultra HD:** 1/2.8 inch high quality 4K SONY CMOS sensor; 8.50 megapixel, resolution is up to 4K (3840x2160) at 30 FPS.
- **Optical Zoom**: 12X optical zoom with 70°viewing angle.
- Advanced Auto Focus Technology: Advanced auto focus technology allows the camera to move fast, accurately, and stably.
- Low Noise and High SNR: Low noise CMOS provides the high SNR. The use of leading 2D 3D noise reduction technology further reduce the noise while not comprising the clarity of image.
- Multiple Connections: It supports for HDMI, SDI, USB3.0, wired LAN and PoE. USB3.0 supports dual stream
- Multiple Audio Compression Formats: It supports for YUY2, MJPEG, H.264, H.265, NV12 video coding formats. And the resolution of 3840X2160 at 30FPS is available under MJPEG, H.264, H.265 formats. Audio compression formats: AAC, MP3, G.711A
- Audio Input Jack: It supports audio coding in AAC, MP3, G.711A. And the sampling rate of 16000, 32000, 44100, 48000 are available under AAC, MPS formats.

- **Built-**in Gravity Sensor: It is built in gravity sensor, supports for PTZ auto flip, easier for engineer to set up.
- Multiple Network Protocols: It supports for protocols of ONVIF,

GB/T28181, RTSP, RTMP, VISCA OVER IP, IP VISCA, RTMPS, SRT, RTMP Push Mode, RTP multi-brodcasting mode, making it easy to link with stream media server(Wowza, FMS)

- Control Jack: RS422 compatible with RS485, RS232-IN, RS232-OUT, RS232 jack is capable of cascading.
- **Multiple Control Protocols:** It supports for control protocols of VISCA, PELCO-D, PELCO-P, and able to automatically identify the protocols.
- **Super Quiet PTZ Movement:** Adopting step driving motor mechanism and motor drive controller with high precision is to ensure PTZ works smoothly with low speed and without noise.
- Low-power Sleep Mode: It supports for low-power sleep/wake up. The power consumption in sleep mode is less than 400mW.
- **Multiple Presets:** It supports for 255 presets(10 presets called via remote control)
- IR & Wireless Remote Control: IR and Wireless Remote Control are available for options.
- Al Human Detection: Boasting high speed processor and advanced

image processing and analytic algorithm, the camera supports for real-

time tracking and zone-tracking.

• Wide Application: Applied in remote teaching, conference system, online training, and tele-medicine.

Technical Specification

Parameter/Model	12X
Camera Lens	
Image Sensor	1/2.8 inch high quality HD CMOS sensor
Effective Pixel	16:9, 8.51 megapixel
	HDMI:
	4KP30、4KP25、1080P60、1080P50、1080P30、
	1080P25、720P60、720P50、1080P59.94、1080P29.97、 720P59.94
	SDI:
	1080P60、1080P50、1080P30、1080P25、720P60、
	720P50、1080P59.94、1080P29.97、720P59.94
	USB3.0:
	Main Stream: YUY2/NV12:
	1920×1080@10/5fps;1280×720@25/20/15/10/5fps;
Video Signal	1024×576/800×600/800×448/640×360/480×270/320×180@3 0/25/20/15/10/5fps;
	MJPG/H264:
	3840*2160/2560×1440/1920×1080/1600×896/1280×720/1024 ×576/960×540/800×600/800×448/720×576/720×480/640×360 /640×480/480×270/352×288/320×240@30/25/20/15/10/5fps;
	Sub Stream: YUY2/NV12:
	1280×720/1024×576/800×600/800×448/640×360/640×480/48 0×270/320×180@30/25/20/15/10/5fps;
	MJPG/H264:
	1920×1080/1600×896/1280×720/1024×576/960×540/800
	$\times 600/800 \times 448/720 \times 576/720 \times 480/640 \times 360/640 \times$
	480/480×270/352×288/320×
	240@30/25/20/15/10/5fps;HDMI:

	4KP30、4KP25、1080P30、1080P25、1080P29.97;
Optical Zoom	12X
Viewing Angle	H: 6.5° (N) ~70.9° (W)
Focal Length	3.9~46.8 mm ±5%
Iris	F1.6 ~ F2.8 \pm 5%
Digital Zoom	15X
Minimum Illumination	0.5Lux(F1.8, AGC ON)
DNR	2D & 3D
White Balance	Auto/Manual/One-push/Specified Color Temperature
Focus	Auto/Manual/One-push
Exposure Mode	Auto, Manual, Shutter Priority, Iris Priority, Brightness Priority
Iris Mode	F1.8 \sim F11, CLOSE
Shutter Speed	1/25~1/20000
BLC	On/off
Dynamic Range	Off, 1 ~ 8
Video Adjustment	Brightness, Chromaticity, Saturation, Contrast, Sharpness, Black And White Mode, Gamma Curve
SNR	>50dB

Interface Parameter	
Interfaces	HDMI, SDI, LAN(POE), USB3.0, A-IN, RS232-IN, RS232-OUT, RS422(Compatible with RS485), DC12V Power Supply, Dial Switch, Power Switch

Video Output	HDMI, SDI, LAN, USB3.0
Video	LAN: H.264, H.265
Compression Format	USB 3.0: MJPG, H264, YUY2, NV12
Audio Input Interface	Double track 3.5mm linear input;
Audio Output Interface	HDMI, SDI, LAN, USB3.0
Audio Compression Format	AAC, MP3, G.711A
LAN Interface	10M/100M/1000M adaptive Ethernet port, support POE power supply, support audio and video output.
Network Protocol	RTSP, RTMP, ONVIF, GB/T28181, VISCA OVER IP, IP VISCA, RTMPS, SRT, support remote upgrade, remote reboot, remote reset
Control Interface	RS232-IN, RS232-OUT, RS422 compatible with RS485
Serial Port Communication Protocols	VISCA/Pelco-D/Pelco-P; Support Baudrate: 115200/38400/9600/4800/2400
USB Communication	UVC (Video Communication Protocol), UAC (Audio Communication Protocol)
Protocol Power Supply	HEC3800 Power Socket(DC12V)
Power Adapter	Input: AC110V~AC220V ; Output: DC12V/2.5A
Input Voltage	DC12V±10%
Input	<1A
Consumption	<12W

PTZ Parameter	
Pan Move	-170°~+170°
Tilt Move	-30°~+30° °
Pan Speed	0.1°/s~60°/s
Tilt Speed	0.1°/s~45°/s
Preset Speed	Pan: 60°/s, Tilt: 45°/s
Preset Quantity	Up to 255 preset (10 via remote control)

Other Parameter	
Storage Temperature	-10℃~+70℃
Storage Humidity	20%~95%
Working Temperature	-10℃~+50℃
Working Humidity	20%~80%
Dimension	181 (L) mm×115mm (W) ×149mm (D)
Weight	1.2kg
Environment	Indoors

Accessory	
Supplied	Power Adapter, RS232 Control Cable, USB3.0 Connection
Accessory	Cable, Remote Control, User Manual.

Optional	Mounting Bracket
Accessory	

AI Function	
Real-time Tracking	The longest tracking distance of up to 6 to 7 meters, can support the speaker to walk at 3 to 4 mph
Zone Tracking	Support setting 4 tracking areas, and the areas is set within $-170^{\circ} \sim +170^{\circ}$ in horizontal and $-30^{\circ} \sim +90^{\circ}$ in vertical.
Select Tracking Target	Select and frame tracking target through clicks and dragging with mouse on webpage

Dimension: (unit: mm)

