

**SMART MEETING****12X optical zoom****Advanced Auto Focus Technology****4K Ultra HD****Super Quiet PTZ Movement****AI Human Detection**

## SDI-4K20-EV12



The SDI-4K20-EV12 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 low-bandwidth.

- **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-broadcasting 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.
- **AI Human Detection:** Boasting high speed processor and advanced image processing and analytic algorithm, the camera supports for realtime tracking and zone-tracking.
- **Wide Application:** Applied in remote teaching, conference system, online training, and tele-medicine.



## Technical Specification

Table1-1 Camera Lens Parameter	
Parameter/Model	12X
Camera Lens	
Image Sensor	1/2.8 inch high quality HD CMOS sensor
Effective Pixel	16:9, 8.51 megapixel
Video Signal	<p>HDMI: 4KP30^ 4KP25^ 1080P60^ 1080P50^ 1080P30^ 1080P25^ 720P60^ 720P50^ 1080P59.94^ 1080P29.97^ 720P59.94</p> <p>SDI: 1080P60^ 1080P50^ 1080P30^ 1080P25^ 720P60^ 720P50^ 1080P59.94^ 1080P29.97^ 720P59.94</p> <p>USB3.0:</p> <p>Main Stream: YUY2/NV12: 1920x1080/1280x720/1024x576/800x600/800x448/640x360/480x270/320x180@10/5fps;</p> <p>MJPEG/H264: 3840*2160/1920x1080/1600x896/1280x720/1024x576/960x540/800x600/800x448/720x576/720x480/640x360/640x480/480x270/352x288/320x240@30/25/20/15/10/5fps;</p> <p>Sub-stream: YUY2/NV12: 1280x720/1024x576/800x600/800x448/640x360/640x480/480x270/320x180@30/25/20/15/10/5fps;</p> <p>MJPEG/H264: 1920x1080/1600x896/1280x720/1024x576/960x540/800x600/800x448/720x576/720x480/640x360/640x480/480x270/352x288/320x240@30/25/20/15/10/5fps;</p>
Optical Zoom	12X

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

Table1-2 Interface Parameter

Interface Parameter	
<b>Interfaces</b>	HDMI, SDI, LAN(POE), USB3.0, A-IN, RS232-IN, RS232-OUT, RS422(Compatible with RS485), DC12V Power Supply, Dial Switch, Power Switch
<b>Video Output</b>	HDMU SDK LAN USB3.0

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

Table1-3 PTZ Parameter

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)

Table1-4 Other Parameter

Other Parameter	
Storage Temperature	-10°C—+70°C
Storage Humidity	20%—95%
Working Temperature	-10°C—+50°C
Working Humidity	20%—80%
Dimension	181 (0 mmX 115mm (W)X149mm (D)
Weight	1.2kg
Environment	Indoors

Tablel -5 Accessory Parameter

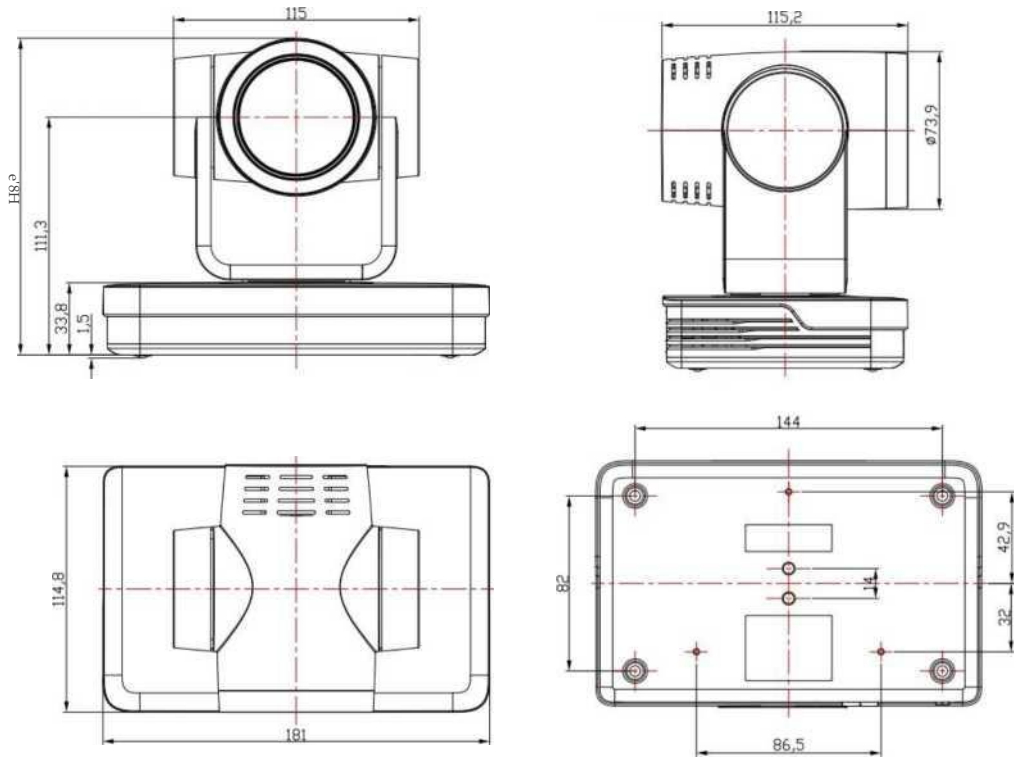
Accessory	
<b>Supplied Accessory</b>	Power Adapter, RS232 Control Cable, USB3.0 Connection Cable, Remote Control, User Manual.
<b>Optional Accessory</b>	Mounting Bracket

Table1-6 AI Function Parameter

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



Dimension: (unit: mm)



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