EP510A series HD Video Camera

Full HD, Wide View Angle, Multiple Video Interfaces, Multi-protocols, Multi-lens

The EP510A series 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 H.264/H.265 encoding which makes motion video more fluent and clear under low bandwidth conditions.

Key Features

• Superb High-definition Image

EP510A adopts **1/2.8 inch**, 2.07 megapixel high quality CMOS sensor. Resolution is up to 1920x1080 with frame rate up to 60fps.

- Multiple Optical Zoom Lens 5X,10X,12X,20X and other optical zoom lens for options. The lens adopts 83.7° wide angle without distortion.
- Leading Auto Focus Technology Leading auto focus algorithm makes lens auto focus more quickly, accurately and stably.
- Low Noise and High SNR

Low Noise CMOS effectively ensure high SNR of camera video. The adoption of advanced 2D/3D noise reduction technology not only further reduces the noise, but also ensuring image sharpness.

- Multiple Audio Output Interfaces
 Support HDMI, SDI, USB, Wired LAN, Wireless LAN (optional 5G WiFi module). SDI supports to transmit 100 meters under the 1080P60 format.
- Multiple Audio/Video Compression Standard Support H.264/H.265 video compression, AAC, MP3 and G.711A audio compression and 1920x1080 resolution with frame rate up to 60fps compression.
- Audio Input Interface Support 8000,16000,32000,44100,48000 sampling frequency and AAC,MP3,PCM audio coding.
- Multiple Network Protocols
 Support ONVIF, GB/T28181, RTSP、 RTMP protocols ,

RTMP push

mode, which is easy to link streaming media server (Wowza,FMS), RTP multicast mode and network full command VISCA control protocol.

- Control Interface RS485,RS232. RS-232 supports cascade function, which is convenient for installation.
- Multiple Control Protocol Support VISCA、PELCO-D、PELCO-P protocols and Automatic identification protocol.
 - **Extremely Quiet PTZ** 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 Function Support low-power sleep/wake up, the consumption is lower than 400mW under sleep mode.
- Multiple Preset
 Support 255 preset positions (the remote controller is

set to 10 preset positions). Multiple Remote Controller

Users can choose infrared remote controller or wireless remote controller according to the environmental conditions. 2.4G wireless remote controller is not affected by the angle, distance, infrared interference.

Wide Application

Tele-education,Lecture Capture,Webcasting, Videoconferencing,Tele-training,Tele-medicine, Interrogation and Emergency command systems.



Technical Specification

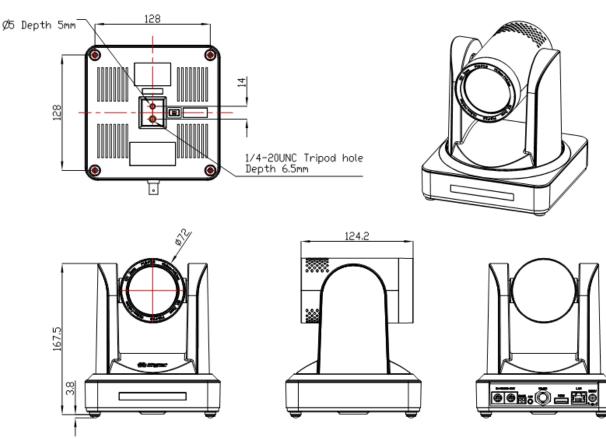
View Angle 20°(tele) 83.7°(wide) 6.43°(tele)60.9°(wide) 6.3°(tele)72.5°(wide) 3.3°(tele)54.7°(AV F1.8 – F2.8 F1.6 – F3.0 F1.8 – F2.4 F1.6 – F3.5 Digital Zoom 10X N State of tele) State	Model	EP510A-05	EP510A-10	EP510A-12	EP510A-20
Effective Pixels 16: 9, 2.07 megapixel Video Format DVI(HDMI)/SDI video format 1080P60/50/30/25/59.94/29.97; 1080I60/50/59.94; 720P60/50/30/25/59.94/29.97 U3 interface video format 1) U3: 1920X1080P60/50/30/25 : 1280X720P60/50/30/25 : 960X540P30 : 640X360P30; 640X480P30 : 352X288P30 : 960X540P30 : 800X600P30 : 2) U3 compatible with U2: 960X540P30, 640X360P30 : 1280X720P10/15; 720X576P50; 720X480P60: 640X480P30 : 352X288P30 : 800X600P30 : U2 interface video format: 176x144/320x240/320x180/352x288/640x480/720x480/720x576/ 640x360/800X600/960X540/1024X576/1024X768/1280X720/1920X1080P30/25/20/15/10/5 Optical Zoom 5X 10X 12X 20X f=3.1~15.5mm f=4.7~47mm f=3.9~46.8mm f=5.5~110n View Angle 20°(tele) 83.7°(wide) 6.43°(tele)-60.9°(wide) 6.3°(tele)-72.5°(wide) 3.3°(tele)-54.7°(View Angle 20°(tele) 83.7°(wide) 6.43°(tele)-60.9°(wide) 6.3°(tele)-72.5°(wide) 3.3°(tele)-54.7°(Ntiminum Illumination 0.5Lux (F1.8, AGC ON) F1.8 - F2.4 F1.6 - F3.5 Digital Zoom 10X F1.8 - F2.4 F1.6 - F3.5 Digital Zoom 10X F1.6 - F3.5 F1.6 - F3.5 Digital Zoom 0.5Lux (F1.8, AGC ON) F1.8 - F2.4 F1.6 - F3.5 Digital Zoom 0.5Lux (F1.8, A	Camera, Len Parame	ter			
Video Format DVI(HDMI)/SDI video format 1080P60/50/30/25/59.94/29.97; 1080160/50/59.94; 720P60/50/30/25/59.94/29.97 U3 interface video format 1) U3: 1920X1080P60/50/30/25; 1280X720P60/50/30/25; 960X540P30; 640X360P30; 1) U3: 1920X1080P60/50/30/25; 1280X720P60/50/30/25; 960X540P30; 640X360P30; 640X360P30; 20X576P50; 2) U3 compatible with U2: 960X540P30; 640X480/720x480P30; 352X288P30; 800X600P30; 1280X720P10/15; 720X480P60; 640X480P30; 352X288P30; 800X600P30; 1280X720P10/15; 720X480P70x576/ 640X480/720x480/720x576/ 640X360/300X540/1024X576/1024X768/1280X720/1920X1080P30/25/20/15/10/5 720X480P60; 640X480/720x480/720x480/720x480/720x576/ 640X360/800X600/960X540/1024X576/1024X768/1280X720/1920X1080P30/25/20/15/10/5 720X480P60; 640X480/720x480/720x480/720x480/720x480/720x576/ 640X360/800X600/960X540/1024X576/1024X768/1280X720/1920X1080P30/25/20/15/10/5 720X 820X 720X 720X 720X 720X 720X 720X480P30; 640X360/720x480/720x480/720x480/720x480/720x576/ 640X360/360X540/1024X576/1024X768/1280X720/1920X1080P30/25/20/15/10/5 720X 720X 720X 720X 720X 720X 720X 72	Sensor	1/2.8 inch high quality HD CMOS sensor			
1080P60/50/30/25/59.94/29.97; 1080I60/50/59.94; 720P60/50/30/25/59.94/29.97 U3 interface video format 1) U3: 1920X1080P60/50/30/25; 1280X720P60/50/30/25; 960X540P30; 640X360P30; 640X480P30; 352X288P30; 800X600P30; 2) U3 compatible with U2: 960X540P30; 640X360P30; 720X576P50; 720X480P60; 640X480P30; 352X288P30; 800X600P30; 1280X720P10/15; 720X480/7	Effective Pixels				
$\begin{array}{ c c c c c c c } \hline 0ptical Zoom & 5X & 10X & 12X & 20X \\ \hline f=3.1\sim15.5mm & f=4.7\sim47mm & f=3.9\sim46.8mm & f=5.5\sim110n \\ \hline f=3.9\sim46.8mm & f=5.5\sim100000000000000000000000000000000000$	Video Format	DVI(HDMI)/SDI video format 1080P60/50/30/25/59.94/29.97; 1080I60/50/59.94; 720P60/50/30/25/59.94/29.97 U3 interface video format 1) U3: 1920X1080P60/50/30/25; 1280X720P60/50/30/25; 960X540P30; 640X360P30; 640X480P30; 352X288P30; 960X540P30; 800X600P30; 2) U3 compatible with U2: 960X540P30; 640X360P30; 720X480P60; 640X480P30; 352X288P30; 800X600P30; 2) U3 compatible with U2: 960X540P30; 640X360P30; 1280X720P10/15; 720X576P50; 720X480P60; 640X480P30; 352X288P30; 800X600P30; U2 interface video format: 176x144/320x240/320x180/352x288/640x480/720x480/720x576/			
Optical Zoom $f=3.1\sim15.5mm$ $f=4.7\sim47mm$ $f=3.9\sim46.8mm$ $f=5.5\sim110n$ View Angle 20° (tele) 83.7° (wide) 6.43° (tele) 60.9° (wide) 6.3° (tele) 72.5° (wide) 3.3° (tele) 54.7° AV $F1.8 - F2.8$ $F1.6 - F3.0$ $F1.8 - F2.4$ $F1.6 - F3.5$ Digital Zoom $10X$ $10X$ $10X$ Minimum Illumination $0.5Lux$ ($F1.8$, AGC ON) V DNR $2D \& 3D$ DNRWhite BalanceAuto / Manual/ One Push/3000K/3500K/4000K/4500K/5000K/5500K/6000K/6500K/7000KFocusAuto/Manual/A key focusAperture/ElectronicAuto/ManualShutter $Shutter$ BLCON/OFFWDROFF/ Dynamic level adjustmentVideo AdjustmentBrightness,Color,Saturation,Contrast,Sharpness,B/W mode,Gamma curve				1	
AVF1.8 - F2.8F1.6 - F3.0F1.8 - F2.4F1.6 - F3.5Digital Zoom10XMinimum Illumination0.5Lux (F1.8, AGC ON)DNR2D & 3D DNRWhite BalanceAuto / Manual/ One Push/3000K/3500K/4000K/4500K/5000K/5500K/6000K/6500K/7000KFocusAuto/Manual/A key focusAperture/ElectronicAuto/ManualShutterBLCDNROFF/ Dynamic level adjustmentVideo AdjustmentBrightness,Color,Saturation,Contrast,Sharpness,B/W mode,Gamma curve	Optical Zoom				20X f=5.5~110mm
Digital Zoom10XMinimum Illumination0.5Lux (F1.8, AGC ON)DNR2D & 3D DNRWhite BalanceAuto / Manual/ One Push/3000K/3500K/4000K/4500K/5500K/6000K/6500K/7000KFocusAuto/Manual/A key focusAperture/Electronic ShutterAuto/ManualBLCON/OFFWDROFF/ Dynamic level adjustmentVideo AdjustmentBrightness,Color,Saturation,Contrast,Sharpness,B/W mode,Gamma curve	View Angle	20°(tele) 83.7°(wide)	6.43°(tele)60.9°(wide)	6.3°(tele)72.5°(wide)	3.3°(tele)54.7°(wide)
Minimum Illumination 0.5Lux (F1.8, AGC ON) DNR 2D & 3D DNR White Balance Auto / Manual/ One Push/3000K/3500K/4000K/4500K/5500K/6000K/6500K/7000K Focus Auto/Manual/A key focus Aperture/Electronic Auto/Manual Shutter Auto/Manual BLC ON/OFF WDR OFF/ Dynamic level adjustment Video Adjustment Brightness,Color,Saturation,Contrast,Sharpness,B/W mode,Gamma curve	AV	F1.8 – F2.8	F1.6 – F3.0	F1.8 – F2.4	F1.6 – F3.5
DNR 2D & 3D DNR White Balance Auto / Manual/ One Push/3000K/3500K/4000K/4500K/5500K/6000K/6500K/7000K Focus Auto/Manual/A key focus Aperture/Electronic Auto/Manual Shutter BLC WDR OFF/ Dynamic level adjustment Video Adjustment Brightness,Color,Saturation,Contrast,Sharpness,B/W mode,Gamma curve	Digital Zoom	10X			
White Balance Auto / Manual/ One Push/3000K/3500K/4000K/4500K/5500K/6000K/6500K/7000K Focus Auto/Manual/A key focus Aperture/Electronic Auto/Manual Shutter BLC WDR OFF/ Dynamic level adjustment Video Adjustment Brightness,Color,Saturation,Contrast,Sharpness,B/W mode,Gamma curve	Minimum Illumination	0.5Lux (F1.8, AGC ON)			
Focus Auto/Manual/A key focus Aperture/Electronic Auto/Manual Shutter Auto/Manual BLC ON/OFF WDR OFF/ Dynamic level adjustment Video Adjustment Brightness,Color,Saturation,Contrast,Sharpness,B/W mode,Gamma curve	DNR	2D & 3D DNR			
Aperture/Electronic Auto/Manual Shutter Image: Shutter BLC ON/OFF WDR OFF/ Dynamic level adjustment Video Adjustment Brightness,Color,Saturation,Contrast,Sharpness,B/W mode,Gamma curve	White Balance	Auto / Manual/ One Push/3000K/3500K/4000K/4500K/5000K/5500K/6000K/6500K/7000K			
Shutter Shutter BLC ON/OFF WDR OFF/ Dynamic level adjustment Video Adjustment Brightness,Color,Saturation,Contrast,Sharpness,B/W mode,Gamma curve	Focus	Auto/Manual/A key focus			
WDR OFF/ Dynamic level adjustment Video Adjustment Brightness,Color,Saturation,Contrast,Sharpness,B/W mode,Gamma curve		Auto/Manual			
Video Adjustment Brightness,Color,Saturation,Contrast,Sharpness,B/W mode,Gamma curve	BLC	ON/OFF			
	WDR	OFF/ Dynamic level adjustment			
	Video Adjustment	Brightness,Color,Saturation,Contrast,Sharpness,B/W mode,Gamma curve			
SNR >55dB	SNR	>55dB			

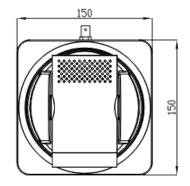
Input/Output Interface				
	EP510A-05/10/12/20-ST Model:HDMI,SDI,LAN, RS232(Ring through RS232 output)、 RS485、A-IN			
Video Interfaces	EP510A-05/10/12/20-U2 Model:USB2.0,LAN,RS232 (Ring through RS232 output) A-IN			
	EP510A-05/10/12/20-U3 Model:USB3.0,LAN,RS232 (Ring through RS232 output、A-IN			
Video Output Interfaces	HDMI、SDI、LAN、USB3.0、USB2.0			
Image Stream	Double stream output			
Video Compression Format	H.264, H.265			
Control Protocol	VISCA/Pelco-D/Pelco-P;Baud Rate:115200/9600/4800/2400bps			
Audio Input Interface	A-IN: Double track 3.5mm linear input			
Audio Compression Format	AAC/MP3/G.711A			
Network Interface	100M IP port(100BASE-TX) 5G WiFi (optional) .			
Network Protocol	RTSP,RTMP,ONVIF,GB/T28181,Network VISCA Control Protocol, Support remote upgrade,			
	reboot and reset.			
Control Interface	RS232 (Ring through RS232 output), RS485			
Power Interface	HEC3800 outlet (DC12V)			
Power Adapter	Input: AC110V-AC220V. Output: DC12V/1.5A			
Input voltage	DC12V±10%			
Input current	1A (Maximum)			
Power Consumption	12W(Maximum)			
PTZ Parameter				
Pan/TiltRotation	±170°,-30°~+90°			
Pan Control Speed	0.1 -60°/sec			
Tilt Control Speed	0.1-30°/sec			
Preset Speed	Pan: 60°/sec, Tilt: 30°/sec			
Preset Number	255 presets (10 presets by remote controller)			
Other Parameter				
Storage Temperature	-10°C∼+60°C			
Storage Humidity	20%~95%			
Working Temperature	-10℃~+50℃			
Working Humidity	20%~80%			
Dimension	150mmX150mmX167.5mm			
Weight (around)	1.4KG			
Using environment	Indoor			

Accessory			
Random Accessory	12V/1.5A power supply, RS232 control line, USB3.0 connection line (U3 model), USB2.0		
	connection line (U2 model), remote controller, Manual, warranty card		
Optional Accessories	Mounting bracket		

www.enricopietrosanti.com

Dimension Pictures: (unit:mm)





Enrico Pietrosanti Tel. 06 916505771 cell. 340 6938456 Via Remo La Valle, 105 – 00054 Fiumicino- Roma (RM) info@enricopietrosanti.com Fax 06 233233289