

HDMI CAMERAS



X7CAM4K series HDMI Camera



The X7CAM4K series HDMI Camera is intended for acquisition of digital images from stereo microscopes, biological microscopes, or online interactive teaching. The basic characteristic is listed as below:

Model in Stock

X7CAM4K8MPA

- Sony STARVIS 2 back-illuminated CMOS sensor
- 4K HDMI/ NETWORK/ USB multiple video synchronous outputs
- 4K/1080P auto switching according to monitor resolution
- High frame rate output, supporting up to 4K 75fps
- Support 4K 60fps low delay HDMI output mode, with an average delay of 40ms
- SD card/USB flash drive for captured image and video storage, support local preview and playback
- ToupView/ToupLite software for PC
- New browsing function, providing rich file operation functions, image to image comparison, image to real-time video comparison, EDF and other functions
- Excellent ISP with local tone mapping and 3D denoising
- Provide two sets of default ISP parameters for biological microscope and stereo microscope
- Embedded XCamView for the control of the Camera and image processing, supporting automatic edge finding and measurement functions
- iOS/Android applications for smart phones or tablets

Model in Stock X7CAM4K8MPA

Related Models

Order Code	Sensor & Size(mm)	Pixel (μm)	G Sensitivity / Dark Signal	FPS / Resolution	Binning	Exposure (ms)
X7CAM4K8MPA	IMX678(C) 1/1.8"(7.68x4.32)	2.0x2.0	3541mv with 1/30s 0.15mv with 1/30s	72@3840x2160	1x1	0.019~1000
X7CAM4K8MPB	IMX585(C) 1/1.2"(11.14x6.26)	2.9 x 2.9	5970mv with 1/30s 0.13mv with 1/30s	75@3840x2160	1x1	0.048~1000
X7CAM4K16MPA	IMX283(C) 1/1.1"(13.06x7.34)	2.4 x 2.4	1847mv with 1/30s 0.84mv with 1/30s	30@5440x3060	1x1	0.104~1000

Specification

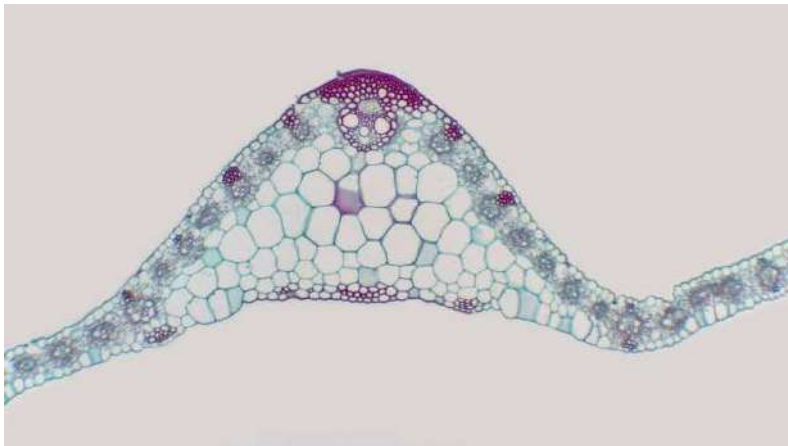
Order Code	Video Saving (FPS/Resolution)	HDMI2.0 (FPS/Resolution)	USB3.0 (FPS/Resolution)	NETWORK (FPS/Resolution)
X7CAM4K8MPA	72@3840x2160 72@1920x1080	60@3840x2160 60@1920x1080	30@3840x2160 45@2688x1512 60@1920x1080	30@3840x2160 60@1920x1080 72@1280x720
X7CAM4K8MPB	75@3840x2160 75@1920x1080	60@3840x2160 60@1920x1080	30@3840x2160 45@2688x1512 60@1920x1080	30@3840x2160 60@1920x1080 72@1280x720
X7CAM4K16MPA	30@3840x2160 30@1920x1080	30@3840x2160 30@1920x1080	20@5440x3060 30@2688x1512 30@1920x1080	30@3840x2160 30@1920x1080 30@1280x720

Interface or Button	Function Description
USB Mouse	Connect USB mouse for easy operation with embedded XCamView software (Flat shape without labelling)
USB3.0	Connect USB flash drive to save pictures and videos Connect 5G WiFi module to transfer video wirelessly in real time Connect USB microphone for audio and video recording
USB Video	Connect PC or other host device to realize video image transmission
HDMI	Comply with HDMI2.0 standard. 4K/1080P format video output and supporting automatic switch between 4K and 1080P format according to the connected monitors
LAN	LAN port to connect router and switch to transfer video
SD	SD card slot, comply with SDIO3.0 standard and SD card could be inserted for video and images saving
ON/OFF	Power switch
LED	LED status indicator
DC12V	Power adapter connection (12V/1A)
Video Output Interface	Function Description
HDMI Interface	Comply with HDMI2.0 standard;60fps@4K or 60fps@1080P(X7CAM4K8MPA, X7CAM4K8MPB) 30fps@4K or 30fps@1080P(X7CAM4K16MPA)
LAN Interface	Support real time resolution switching(4K/1080P/720P) H264 encoded video DHCP configuration or manual configuration Unicast/multicast configuration
WiFi Interface	Connecting 5G WiFi adapter (USB3.0 slot) in AP/STA mode
USB Video Interface	Connecting USB Video port of PC for video transfer H264/MJPEG format video
Other Function	Function Description
Video Saving	Video format : 8M(3840*2160) H264/H265 encoded MP4 file Video saving frame rate:72fps(X7CAM4K8MPA); 75fps(X7CAM4K8MPB); 60fps in low delay mode(X7CAM4K8MPA, X7CAM4K8MPB); 30fps(X7CAM4K16MPA)
Image Capture	8M (3840*2160, X7CAM4K8MPA, X7CAM4K8MPB) JPEG/TIFF image in SD card or USB flash drive 16M (5440*3060, X7CAM4K16MPA) JPEG/TIFF image in SD card or USB flash drive (Default SD card priority, priority can be modified in settings)
Measurement Saving	Measurement information saved in different layer with image content Measurement information is saved together with image content in burn in mode
ISP	Exposure(Automatic / Manual Exposure) / Gain, White Balance(Manual / Automatic / ROI Mode), Sharpening, 3D Denoise, Saturation Adjustment, Contrast Adjustment , Brightness Adjustment, Gamma Adjustment, Color to Gray, 50HZ/60HZ Anti-flicker Function
Image Operation	Zoom In/Zoom Out(Up to 10X), Mirror/Flip, Freeze, Cross Line, PIP , Browser(including Picture Browsing , Video Playback , Video Compare , Picture Compare , EDF , Image Processing), Measurement Function
Embedded RTC(Optional)	To support accurate time on board
Restore Factory Settings	Restore Camera parameters to its factory status
Multiple Language Support	English / Simplified Chinese / Traditional Chinese / Korean / Thailand / French / German / Spanish / Japanese / Italian / Dutch / Portuguese

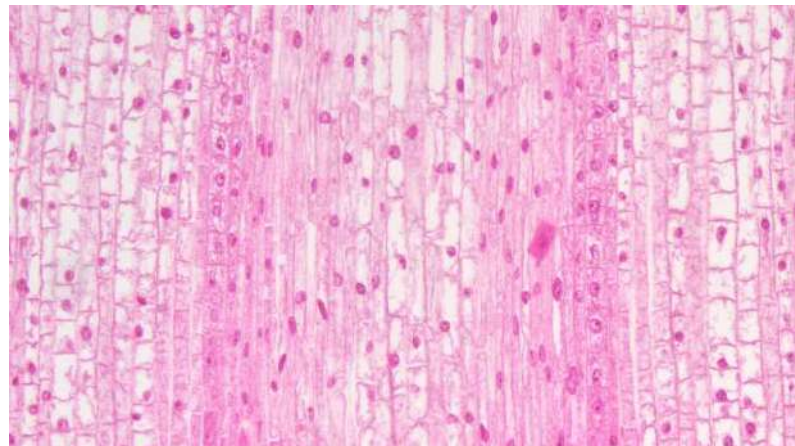
Software Environment under Network/USB Video Output

White Balance	Auto White Balance
Color Technique	Ultra-Fine Color Engine
Capture/Control SDK	Windows/Linux/macOS/Android Multiple Platform SDK(Native C/C++, C#/VB.NET, Python, Java, DirectShow, Twain, etc)
Recording System	Still Picture or Movie
Operating System	Microsoft® Windows® XP / Vista / 7 / 8 / 8.1 / 10 / 11(32 & 64 bit) OSx(Mac OS X) Linux
PC Requirements	CPU: Equal to Intel Core2 2.8GHz or Higher
	Memory: 4GB or More
	Ethernet Port: RJ45 Ethernet Port
	Display:19" or Larger
	CD-ROM
Operating Environment	
Operating Temperature (in Centidegree)	-10°~ 50°
Storage Temperature (in Centidegree)	-20°~ 60°
Operating Humidity	30~80%RH
Storage Humidity	10~60%RH
Power Supply	DC 12V/1A Adapter

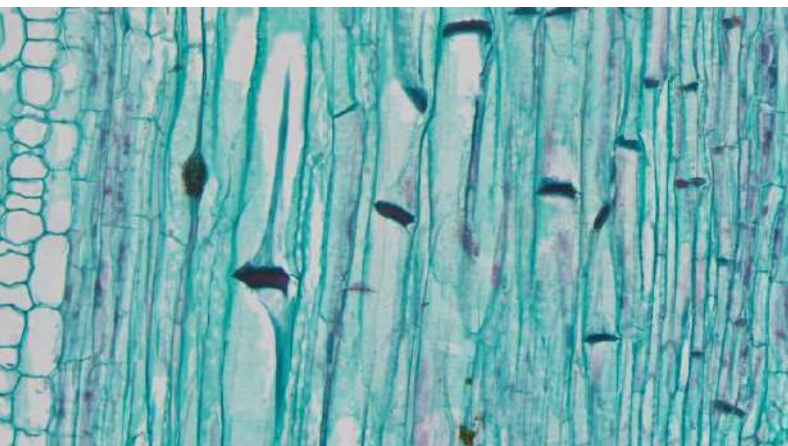
Instance



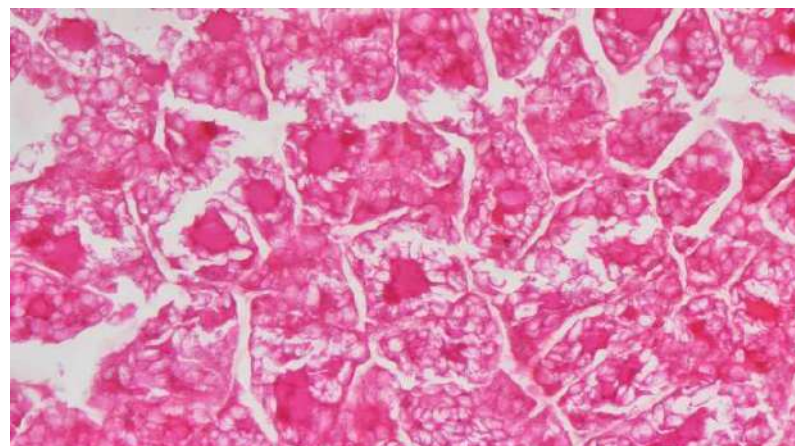
CornLeaf



CornRootTipLS



CucurbitStemLS



FluorescentSectioningOfWheatSeeds



Camera interface and appearance dimensions



Packing List



Packing List



Packing Information of X7CAM4K Series

Standard Packing List			
A	Gift box : L:25.5cm W:17.0cm H:9.0cm (1pcs, 1.7Kg/ box)		
B	X7CAM4K Camera (One of the two different shapes)		
C	Power Adapter: Input: AC 100~240V 50Hz/60Hz, Output: DC 12V 1A American standard: Model: POWER-U-12V1A(MSA-C1000IC12.0-12W-US): UL/CE/FCC European standard: Model: POWER-E-12V1A(MSA-C10001C12.0-12W-DE): UL/CE/FCC EMI standard: FCC Part 15 Subpart B EMS standard: EN61000-4-2,3,4,5,6		
D	USB Mouse		
E	HDMI Cable		
F	USB3.0 A male to A male gold-plated connectors cable /2.0m		
G	CD (Driver & utilities software, Ø12cm)		
Optional Accessory			
H	SD Card(16G or above; Speed: class 10)		
I	USB flash drive		
J	Adjustable lens adapter	C-Mount to Dia.23.2mm Eyepiece Tube (Please choose 1 of them for your microscope)	108001/AMA037 108002/AMA050 108003/AMA075
K	Fixed lens adapter	C-Mount to Dia.23.2mm Eyepiece Tube (Please choose 1 of them for your microscope)	108005/FMA037 108006/FMA050 108007/FMA075
Note: For J and K optional items, please specify your Camera type(C-mount, microscope Camera or telescope camera), engineer will help you to determine the right microscope or telescope Camera adapter for your application;			
L	108015(Dia.23.2mm to 30.0mm Ring)/Adapter rings for 30mm eyepiece tube		
M	108016(Dia.23.2mm to 30.5mm Ring)/ Adapter rings for 30.5mm eyepiece tube		
N	Calibration kit	106011/TS-M1(X=0.01mm/100Div.); 106012/TS-M2(X, Y=0.01mm/100Div.); 106013/TS-M7(X=0.01mm/100Div., 0.10mm/100Div.)	
O	USB WiFi adapter		
P	Ethernet cable		

Model in Stock	Model in Stock
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