OPTO-EDU A59.2245 4K HDMI+WIFI+USB3.0+Net Digital Camera Mouse Measure

Basic Information

- Place of Origin: China
- Brand Name: CNOEC, OPTO-EDU
- Certification: CE, Rohs
- Model Number: A59.2245
- Minimum Order Quantity: 1 pc
- Price: FOB $1~1000, Depend on Order Quantity
- Packaging Details: Carton Packing, For Export Transportation
- Delivery Time: 5~20 Days
- Payment Terms: T/T, West Union, Paypal
- Supply Ability: 5000 pcs/ Month

Product Specification

- Applications: Microscope
- Certification: CE|Rohs
- Output: HDMI
- Product Name: Microscope Accessories
- Senser: CMOS
- Compatible: Windows XP/Vista
- Highlight: **4K HDMI Digital Camera,**
                      4K HDMI+WIFI+USB3.0 Digital Camera,
                      4K HDMI+WIFI Digital Camera

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OPTO-EDU

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A59.2245
Auto Focus, EDF 4K HDMI+WIFI+USB Camera, Mouse Measure

A59.2245 Features & Size(mm)

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The A59.2245 series Camera is intended for acquisition of digital images from stereo microscopes, biological microscopes, or online interactive teaching. The basic characteristic is listed as below:

Sony STARVIS 2 back-illuminated CMOS sensor
4K HDMI/ NETWORK/ USB multiple video synchronous outputs
4K/1080P auto switching according to monitor resolution
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
New browsing function, providing rich file operation functions, image to image comparison, image to real-time video comparison, Multi image EDF and other functions
Excellent ISP with local tone mapping and 3D denoising
Provide real-time video EDF function and real-time video WDR output function
Provide two sets of default ISP parameters for biological microscope and stereo microscope
Embedded for the control of the Camera and image processing, supporting auto

Order Code	Sensor & Size(mm)	Pixel(μm)	G Sensitivity/Dark Signal	FPS/Resolution	Binning	Exposure(ms)
8MPA7	IMX678© 1/1.8"(7.68x4.32)	2.0x2.0	3541mv with 1/30s 0.15mv with 1/30s	72@3840x2160	1x1	0.019~1000
8MPB7	IMX585© 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
16MPA7	IMX283© 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
8MPA5	Sony IMX678© 1/1.8"(7.68x4.32)	2.0x2.0	3541mv with 1/30s 0.15mv with 1/30s	60@3840*2160	1x1	0.019~1000
8MPB5	Sony IMX585© 1/1.2"(11.14x6.26)	2.9x2.9	5970mv with 1/30s 0.13mv with 1/30s	60@3840*2160	1x1	0.048~1000

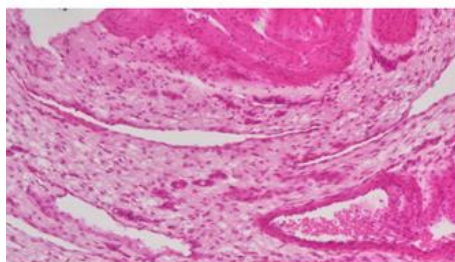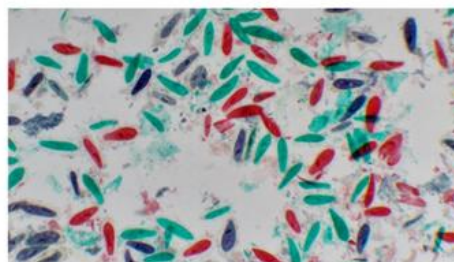| Order Code	Video Saving(FPS/Resolution)	HDMI2.0(FPS/Resolution)	USB3.0(FPS/Resolution)	NETWORK(FPS/Resolution)
8MPA7	72@3840x2160 72@1920x1080	60@3840x2160 60@1920x1080	30@3840x2160 45@2688x1512 60@1920x1080	30@3840x2160 60@1920x1080 72@1280x720
8MPB7	75@3840x2160 75@1920x1080	60@3840x2160 60@1920x1080	30@3840x2160 45@2688x1512 60@1920x1080	30@3840x2160 60@1920x1080 72@1280x720
16MPA7	30@3840x2160 30@1920x1080	30@3840x2160 30@1920x1080	20@5440x3060 30@2688x1512 30@1920x1080	30@3840x2160 30@1920x1080 30@1280x720
8MPA5	60@3840*2160 60@1920*1080	60@3840*2160 60@1920*1080	30@3840*2160 45@2688*1512 60@1920*1080	30@3840*2160 60@1920*1080 60@1280*720
8MPB5	60@3840*2160 60@1920*1080	60@3840*2160 60@1920*1080	30@3840*2160 45@2688*1512 60@1920*1080	30@3840*2160 60@1920*1080 60@1280*720

A59.2245 Specification & Size(mm)　OPTO-EDU

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

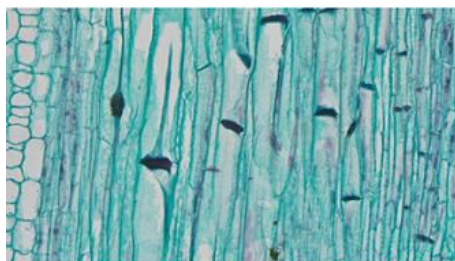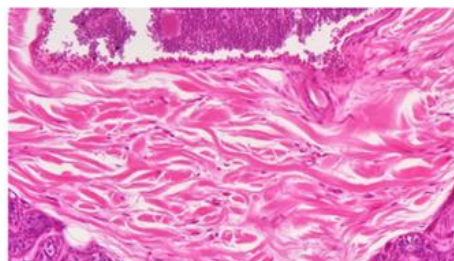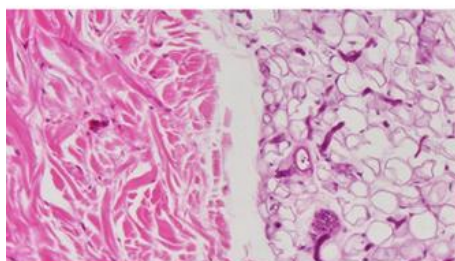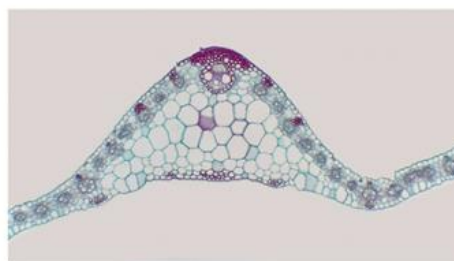|	
SD	SD card slot, comply with SDIO3.0 standard and SD card could be inserted for video and images saving
ON/OFF	Power switch
LED	LED status indicator
DC12V	Power adapter connection (12V/1A)
Video Output Interface	**Function Description**
HDMI Interface (8MPA7/8MPB7/16MPA7)	Comply with HDMI2.0 standard;60fps@4K or 60fps@1080P(8MPA7/8MPB7/16MPA78MPA, 8MPA7/8MPB7/16MPA78MPB) 30fps@4K or 30fps@1080P(8MPA7/8MPB7/16MPA716MPA)
HDMI Interface (8MPA5/8MPB5)	Comply with HDMI2.0 standard;60fps@4K or 60fps@1080P
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 (8MPA7/8MPB7/16MPA7)	Video format:8M(3840*2160) H264/H265 encoded MP4 file Video saving frame rate:72fps(8MPA7/8MPB7/16MPA78MPA); 75fps(8MPA7/8MPB7/16MPA78MPB); 60fps in low delay mode(8MPA7/8MPB7/16MPA78MPA, 8MPA7/8MPB7/16MPA78MPB); 30fps(8MPA7/8MPB7/16MPA716MPA)
Video Saving (8MPA5/8MPB5)	Video format:8M(3840*2160) H264/H265 encoded MP4 file Video saving frame rate:60fps
Image Capture (8MPA7/8MPB7/16MPA7)	8M (3840*2160, 8MPA7/8MPB7/16MPA78MPA, 8MPA7/8MPB7/16MPA78MPB) JPEG/TIFF image in SD card or USB flash drive 16M (5440*3060, 8MPA7/8MPB7/16MPA716MPA) JPEG/TIFF image in SD card or USB flash drive (Default SD card priority, priority can be modified in settings)
Image Capture (8MPA5/8MPB5)	8M (3840*2160) 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

Stomach Sec

Paramecium WM
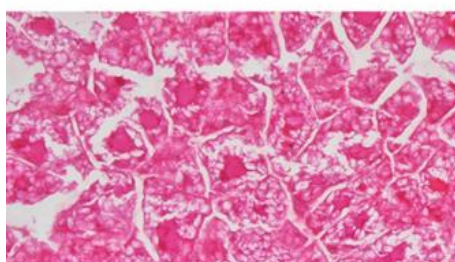

Cucurbit Stem LS

Human Skin And Hair Follicle Slicing
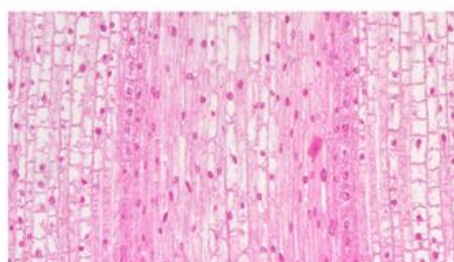

Human Skin And Hair Follicle Slicing

Corn Leaf

Fluorescent Sectioning Of WheatSeeds

Corn Root Tip LS

A59.2245 Packing List　　　OPTO-EDU

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), ToupTek 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		

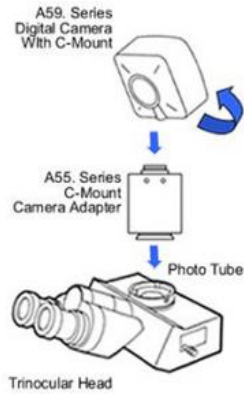# Camera Connect To Microscope

A55.2002
C-Mount to 23.2mm Adapter
For Microscope
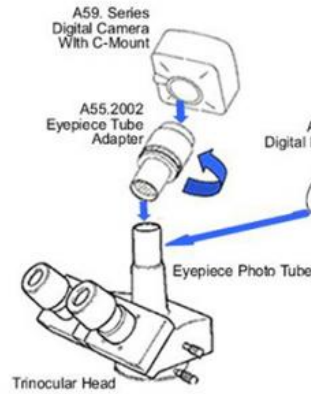
A55.2004
C-Mount to 31.75mm Adapter
For Telescope
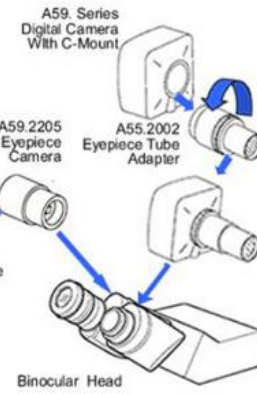
OPTO-EDU How Camera Connect To Microscope

1. To Trinocular Microscope On Straight Photo Tube

A59. Series Digital Camera With C-Mount

A55. Series C-Mount Camera Adapter

Photo Tube

Trinocular Head

2. To Trinocular Microscope On Eyepiece Photo Tube

A59. Series Digital Camera With C-Mount

A55.2002 Eyepiece Tube Adapter

Eyepiece Photo Tube

Trinocular Head

3. To Binocular Microscope On Eyepiece Tube

A59. Series Digital Camera With C-Mount

A59.2205 Digital Eyepiece Camera

A55.2002 Eyepiece Tube Adapter

Binocular Head