OPTO-EDU A59.2238 Auto Focus EDF 4K HDMI+WIFI+USB Camera Mouse Measure

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: CNOEC, OPTO-EDU
- Certification: CE, Rohs
- Model Number: A59.2238
- 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: **Mouse Measure HDMI+WIFI+USB Camera**, **4K HDMI+WIFI+USB Camera**, **Auto Focus HDMI+WIFI+USB Camera**

Product Description

OPTO-EDU (BEIJING) CO., LTD.
F-1501 Wanda Plaza, No.18 Shijingshan Road, Beijing 100043, China
Tel:+8610 88696020 Fax:+8610 88696085

A59.2238
Auto Focus, EDF 4K HDMI+WIFI+USB Camera, Mouse Measure

A59.2238 Features & Size(mm)

The A59.2238 is a HDMI Camera designed by ToupTek that includes multiple modes of output (HDMI/WiFi/USB), It's a CMOS Camera with multiple interfaces, and auto focus. It uses ultra-high- performance CMOS sensor. The Camera can be directly connected to an HDMI display, or it can be connected to a computer via WiFi or USB, and the image and video can be saved in an SD card /USB flash drive for on-site analysis and subsequent research.

Enhanced with an embedded ARM core, this Camera integrates various functions inside. With the help of a USB mouse and well-designed UI on the HDMI monitor, all functions could be easily controlled.

The A59.2238 HDMI Camera comes with the built-in Auto Focus system, which can realize Auto Focus on specific areas of the sample.

By inserting a WiFi module or connecting to a computer via a USB cable, the user can directly control the camera's hardware with the software ToupView or ToupLite. The X5FCAM4K8MPA Camera can be used for tool field inspection, microscope observation, etc.

Order Code	Sensor & Size(mm)	Pixel(μm)	G Sensitivity/Dark Signal	FPS/Resolution	Binning	Exposure(ms)
8MPA	IMX678© 1/1.8"(7.68x4.32)	2.0x2.0	3541mv with 1/30s 0.15mv with 1/30s	60@3840x2160	1x1	0.019~1000

Order Code	Video Saving(FPS/Resolution)	HDMI2.0(FPS/Resolution)	USB3.0(FPS/Resolution)	WiFi(FPS/Resolution)
8MPA	60@3840x2160 60@1920x1080	60@3840x2160 60@1920x1080	30@3840x2160 45@2688x1512 60@1920x1080	30@3840x2160 60@1920x1080 60@1280x720

A59.2238 Specification & Size(mm)

OPTO-EDU

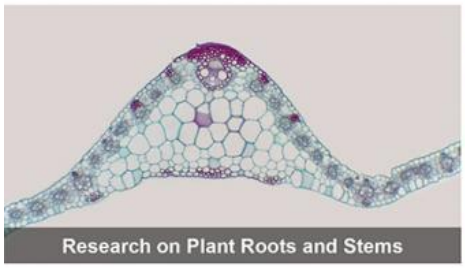
Interfaceor Button	Function Description
USB Mouse	Connect USB mouse for easy operation with embedded XCamView software
USB3.0	Connect USB flash drive to save pictures and videos Connect 5G WiFi module to transfer video wirelessly in real time Connect USB microphone for audio and video recording
USB Video	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
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
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: 60fps in Low Delay mode; 30fps in WDR mode
Image Capture	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,Gamma Adjustment, Contrast Adjustment, Brightness Adjustment,Hue Adjustment, Color to Gray, 50HZ/60HZ Anti-flicker Function
Image Operation	Zoom In/Zoom Out(Up to 10X), Mirror/Flip, Freeze, EDF, Cross Line, Overlay, PIP , Auto Focus , 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 Environmentunder WiFi/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® 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
	USB interface: USB2.0 interface or higher

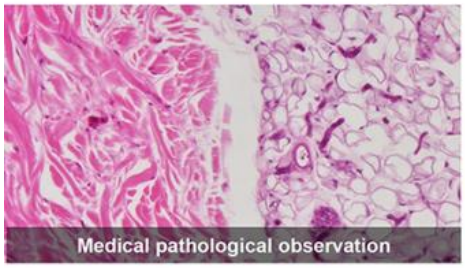
	Display:19" or Larger
	CD-ROM
Operating Environment	
Operating Temperature (in Centidegree)	-10°~ 50°
Storage Temperature (in Centidegree)	-20°~ 60°
Operating Humidity	30~80%RH
Storage Humidity	10~60%RH
Power Supply	DC 12V/1A Adapter

A59.2238 Application

OPTO-EDU

- Sony STARVIS 2 back-illuminated CMOS sensor
- 4K HDMI/ WiFi / 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
- iOS/Android applications for smart phones or tablets
- Provide multiple focusing methods, and the size of the focusing area can be modified; Provide AF+EDF, facilitating the synthesis of high depth of field images in multiple focus areas at high magnification
- 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 XCamView for the control of the Camera and image processing, supporting automatic edge finding and measurement functions
- ToupView/ToupLite software for PC





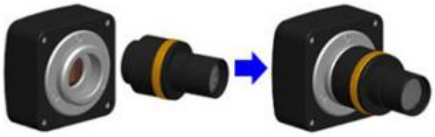
A59.2238 Packing List

OPTO-EDU

Standard Packing List			
A	Gift box : L:25.5cm W:17.0cm H:9.0cm (1pcs, 1.7Kg/ box)		
B	X5FCAM4K8MPA Camera		
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	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
J	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 I and J 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;			
K	108015(Dia.23.2mm to 30.0mm Ring)/Adapter rings for 30mm eyepiece tube		
L	108016(Dia.23.2mm to 30.5mm Ring)/ Adapter rings for 30.5mm eyepiece tube		
M	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.)
N	USB flash drive		
O	USB WiFi adapter		

Camera Connect To Microscope

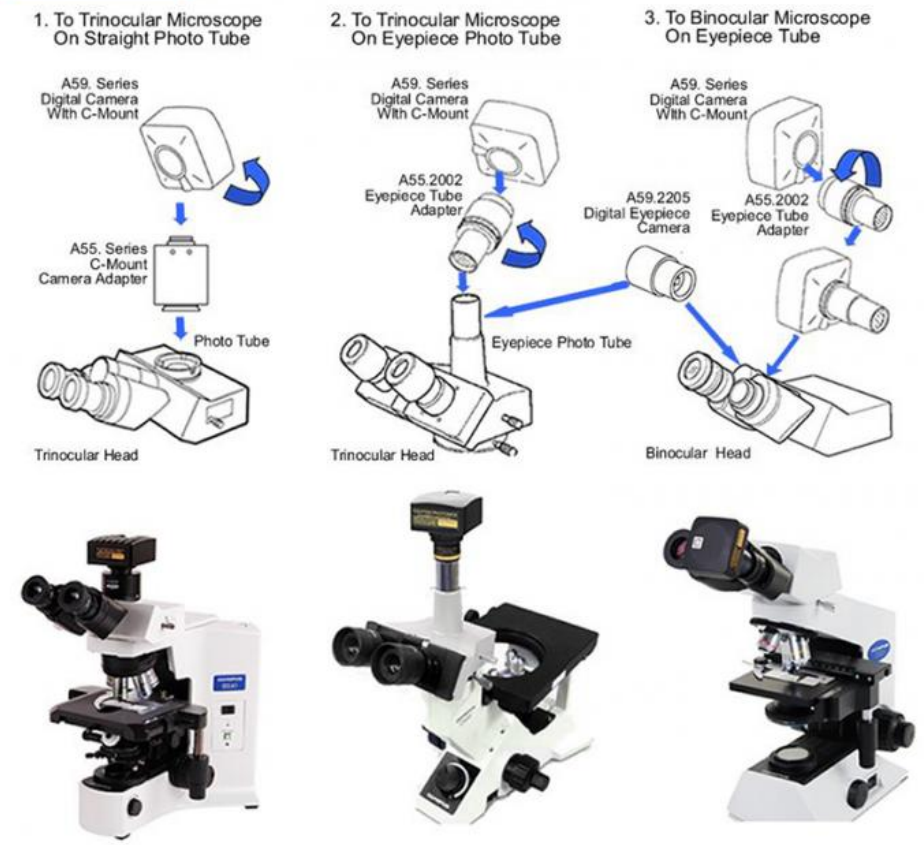
OPTO-EDU



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



Opto-Edu (Beijing) Co., Ltd.

0086 13911110627 sale@optoedu.com cnoec.com

F-1501 Wanda Plaza, No. 18 Shijingshan Road, Beijing 100043, China