OPTO-EDU A59.2225 USB3.0 CMOS Cooled Digital Camera Fluorescent Image GS Shutter 1.7M~45M

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: OPTO-EDU
- Certification: CE, Rohs
- Model Number: A59.2225
- 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

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Product Specification

- Applications: Microscope
- Certification: CE|Rohs
- Output: USB 3.0
- Product Name: Microscope Accessories
- Senser: CMOS
- Compatible: Windows XP/Vista
- Highlight: **Fluorescent Image CMOS Cooled Digital Camera**
  , **USB3.0 CMOS Cooled Digital Camera**,
  GS Shutter CMOS Cooled Digital Camera

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OPTO-EDU

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A59.2225

USB3.0 CMOS Cooled Digital Camera, Fluorescent Image, GS Shutter
(Default blue cylindrical shell)

Product Software

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A59.2225
USB3.0 CMOS Cooled Digital Camera,
Fluorescent Image, GS Shutter

A59.2225 adopt SONY Exmor CMOS sensor as the image-picking device and USB3.0 is used as the transfer interface. MTR3CMOS hardware resolutions range from 1.7M to 45M and come with the integrated CNC aluminum alloy compact housing.

With the two-stage peltier cooling sensor chip to -42 degree below ambient temperature. This will greatly increase the signal to noise ratio and decrease the image noise. Smart structure is designed to assure the heat radiation efficiency and avoid the moisture problem. Electric fan is used to increase the heat radiation speed.

A59.2225 comes with advanced video & image processing software Opto-Edu Image View; Providing Windows/Linux/macOS/ Android multiple platform SDK(Native C/C++, C#/VB.NET, Python, Java, DirectShow, Twain, etc);
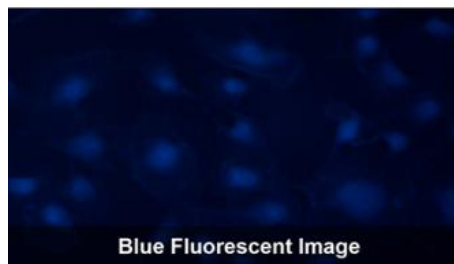
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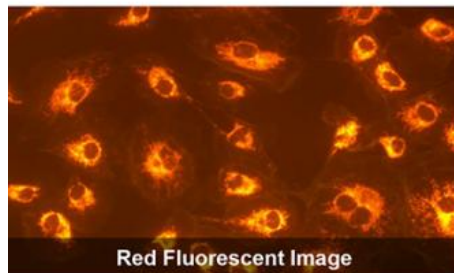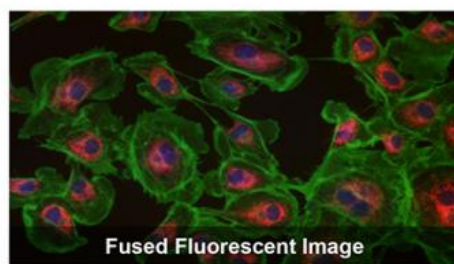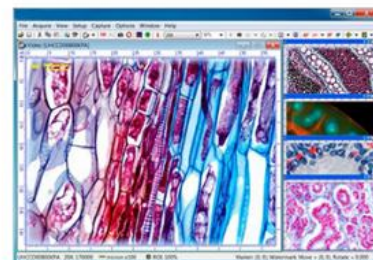

Red Fluorescent Image
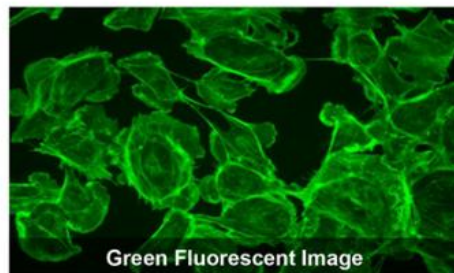
Green Fluorescent Image

Blue Fluorescent Image

Fused Fluorescent Image

A59.2225 Specification

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Order Code	Sensor & Size(mm)	Pixel(μm)	G Sensitivity	Dark Signal	FPS/Resolution	ADC	Binning	Exposure

Model	Sensor	Pixel Size	Sensitivity	Resolution	Binning	Exposure
45MMA	45M/IMX492(M, RS) 4/3"(19.11x13.00)	2.315 x2.315	351mV with 1/30s 0.12mV with 1/30s	8.1@8176x5616 30.0@4080x2808 8.1@7408x5556 33.0@3696x2778 10.4@8176x4320 34.7@4096x2160 62.5@2048x1080 86.5@1360x720 8 Bit / 12 Bit	1x1(3:2) 2x2(3:2) 1x1(4:3) 2x2(4:3) 1x1(17:9) 2x2(17:9) 3x3(17:9) 4x4(17:9)	0.1ms~1h
26MPA	26M/IMX571(C, RS) 1.8"(23.48x15.67) APS-C	3.76 x3.76	485mv with 1/30s 0.07mv with 1/30s	14@6224x4168 37@3104x2084 110@2064x1386 8 Bit / 16 Bit	1x1 2x2 3x3	0.1ms~1h
26MMA	26M/IMX571(M, RS) 1.8"(23.48x15.67) APS-C	3.76 x3.76	871mv with 1/30s 0.07mv with 1/30s	14@6224x4168 37@3104x2084 110@2064x1386 8 Bit / 16 Bit	1x1 2x2 3x3	0.1ms~1h
21MPA	21M/IMX269© 4/3"(17.4x13.1)	3.3 x3.3	400mv with 1/30s 0.1mv with 1/30s	17@5280x3954 17@3952x3952 56@2640x1976 67@1760x1316 192@584x438 8 Bit / 12 Bit	1x1 1x1 2x2 3x3 9x9	0.1ms~1h
20MPA	20M/IMX183(C, RS) 1 "(13.056x8.755)	2.4 x2.4	462mv with 1/30s 0.21mv with 1/30s	19@5440x3648 48.8@2736x1824 59.4@1824x1216 8 Bit / 12 Bit	1x1 2x2 3x3	0.1ms~1h
20MMA	20M/IMX183(M, RS) 1 "(13.056x8.755)	2.4 x2.4	388mv with 1/30s 0.21mv with 1/30s (F8.0)	19@5440x3648 48.8@2736x1824 59.4@1824x1216 8 Bit / 12 Bit	1x1 2x2 3x3	0.1ms~1h
10.3MPA	10.3M/IMX294© 4/3 "(19.11x13.0)	4.63 x4.63	419mv with 1/30s 0.12mv with 1/30s	30.0@4128x2808 38.5 @4096x2160 59.8@2048x1080 87.2@1360x720 8 Bit / 14 Bit	1x1 1x1 2x2 3x3	0.15ms~1h
10.3MMA	10.3M/IMX492(M, RS) 4/3 "(19.11x13.0)	4.63 x4.63	701mv with 1/30s 0.12mv with 1/30s	30.0@4128*2808 38.5@ 4096*2160 59.8@2048*1080 87.2@1360*720 8 Bit / 14 Bit	1x1 1x1 2x2 3x3	0.15ms~1h
9MPA	9M/IMX533© 1"(11.28x11.28)	3.76 x3.76	534mv with 1/30s 0.04mv with 1/30s	40@2992x3000 62@1488x1500 186@992x998 8 Bit / 14 Bit	1x1 2x2 3x3	0.1ms~1h
9MMA	9M/IMX533(M) 1"(11.28x11.28)	3.76 x3.76	877mv with 1/30s 0.04mv with 1/30s	40@2992x3000 62@1488x1500 186@992x998 8 Bit / 14 Bit	1x1 2x2 3x3	0.1ms~1h
8.3MPA	8.3M/IMX585(C, RS) 1/1.2"(11.14x6.26)	2.9x2.9	5970mv with 1/30s 0.15mv with 1/30s	45@3840x2160 70@1920x1080 8 Bit / 12 Bit	1x1 2x2	0.1ms~1h
7MPA	7.0M/IMX428(C,GS) 1.1 "(14.4x9.9)	4.5 x4.5	2058mv with 1/30s 0.15mv with 1/30s	51.3@3200x2200 133.8@1584x1100 8 Bit / 12 Bit	1x1 1x1	0.1ms~1h
7MMA	7.0M/IMX428(M,GS) 1.1 "(14.4x9.9)	4.5 x4.5	3354mv with 1/30s 0.15mv with 1/30s	51.3@3200x2200 133.8@1584x1100 8 Bit / 12 Bit	1x1 1x1	0.1ms~1h
2.3MPA	2.3M/SC2110(C,RS) 1.69"(23.0x14.4)	12x12	120000 mV/lux·s @HCG	120@1920x1200 8 Bit / 12 Bit	1x1	0.1ms~1h
2.3MMA	2.3M/SC2110(M,RS) 1.69"(23.0x14.4)	12x12	120000 mV/lux·s @HCG	120@1920x1200 8 Bit / 12 Bit	1x1	0.1ms~1h
1.7MPA	1.7M/IMX432(C,GS) 1.1 "(14.4x9.9)	9.0 x9.0	4910mv with 1/30s 0.3mv with 1/30s	98.6@1600x1100 8 Bit / 12 Bit	1x1	0.1ms~1h
1.7MMA	1.7M/IMX432(M,GS) 1.1 "(14.4x9.9)	9.0 x9.0	8100mv with 1/30s 0.3mv with 1/30s	98.6@1600x1100 8 Bit / 12 Bit	1x1	0.1ms~1h

Other Specification	
Spectral Range	380-650nm (with IR-cut Filter)
White Balance	ROI White Balance/ Manual Temp Tint Adjustment/NA for Monochromatic Sensor
Color Technique	Ultra-Fine Color Engine/NA for Monochromatic Sensor
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 and Movie

| Cooling System*	Two-stage TE-cooling System -45 °C below Camera Body Temperature
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 5V over PC USB Port External Power Adapter for Cooling System, DC12V, 3A
Software Environment	
Operating System	Microsoft® Windows® XP / Vista / 7 / 8 /10 /11 (32 & 64 bit) OSx(Mac OS X) Linux
PC Requirements	CPU: Equal to Intel Core2 2.8GHz or Higher Memory:2GB or More USB Port:USB3.0 High-speed Port Display:17" or Larger CD-ROM

A59.2225 Packing List

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Standard Package	
A	Carton L:50cm W:30cm H:30cm (20pcs, 12~17Kg/ carton), not shown in the photo(TBD)
B	3-A safety equipment case: L:28cm W:23cm H:15cm (1pcs, 2.8Kg/ box); Carton size:L:28.2cm W:25.2cm H:16.7cm(TBD)
C	One MTR3CMOS series camera(C-mount)
D	Drying tube and desiccant
E	Power adapter: input: AC 100~240V 50Hz/60Hz, output: DC12 V 3A
F	High-Speed USB3.0 A male to B male gold-plated connectors cable /1.5m
G	CD (Driver & utilities software, Ø12cm)

Optional Accessory			
H	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 108004/AMA100
		C-Mount to Dia.31.75mm eyepiece tube (Please choose 1 of them for your telescope)	108008/ATA037 108009/ATA050 108010/ATA075 108011/ATA100
I	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 108008/FMA100
		C-mount to Dia.31.75mm eyepiece tube (Please choose 1 of them for your telescope)	108011/FTA037 108012/FTA050 108013/FTA075 108014/FTA100

Note: For H and I 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;

J	108015(Dia.23.2mm to 30.0mm ring)/Adapter rings for 30mm eyepiece tube	
K	108016(Dia.23.2mm to 30.5mm ring)/ Adapter rings for 30.5mm eyepiece tube	
L	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.)

A59.2225 Optional Appearance

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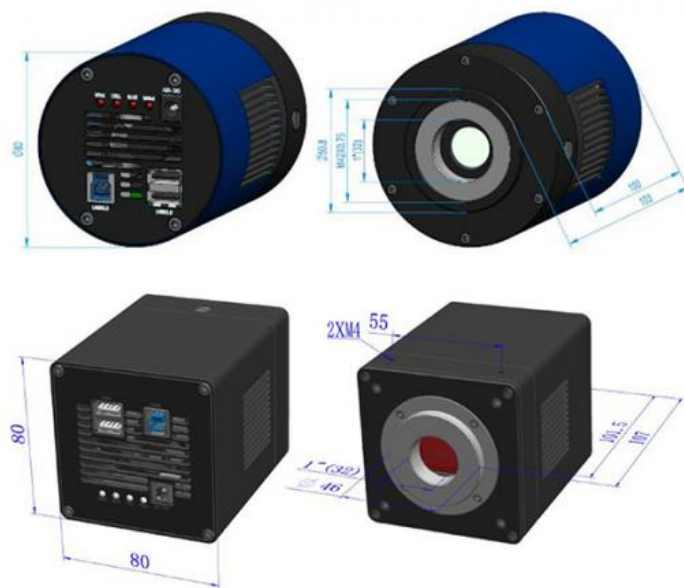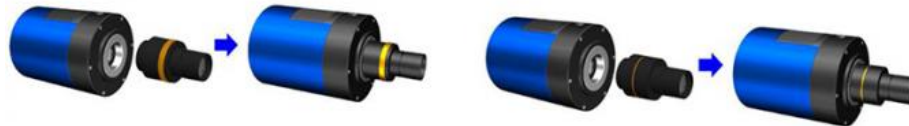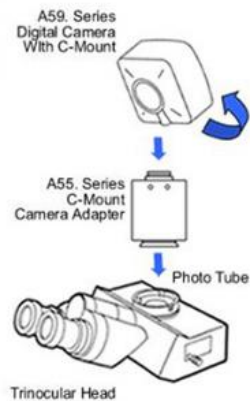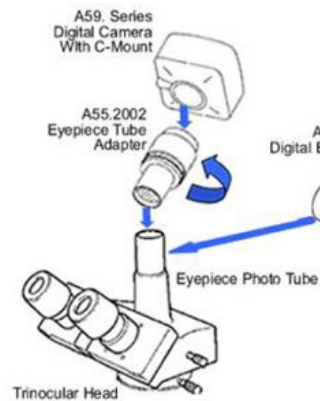
A55.2002
C-Mount to 23.2mm Adapter
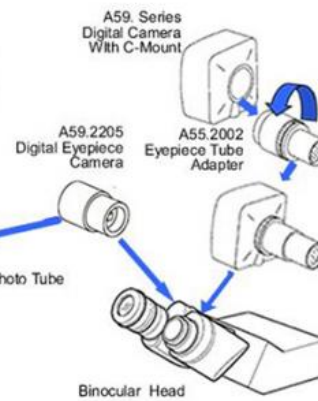**For Microscope**

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
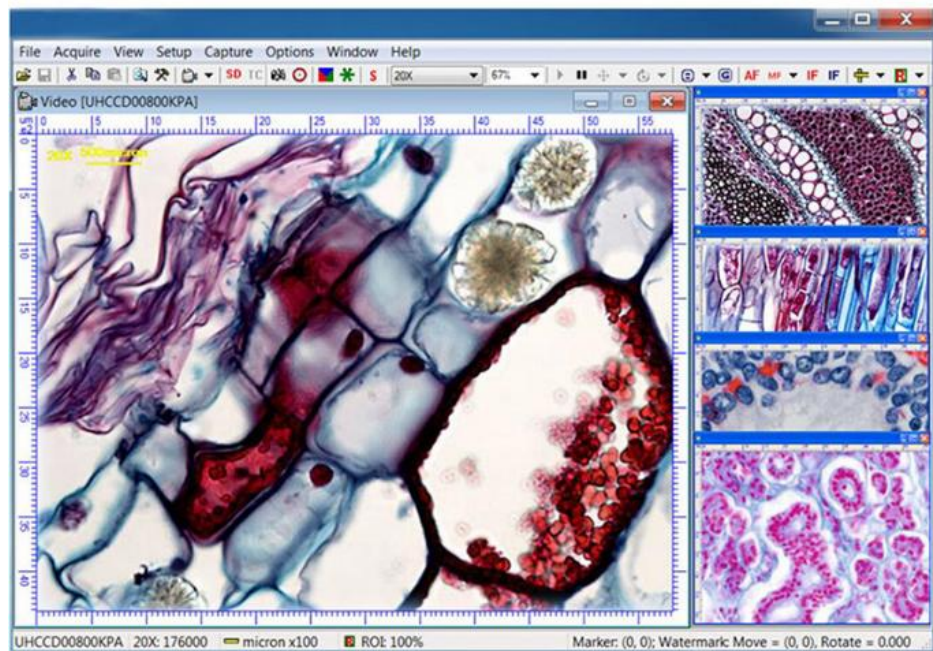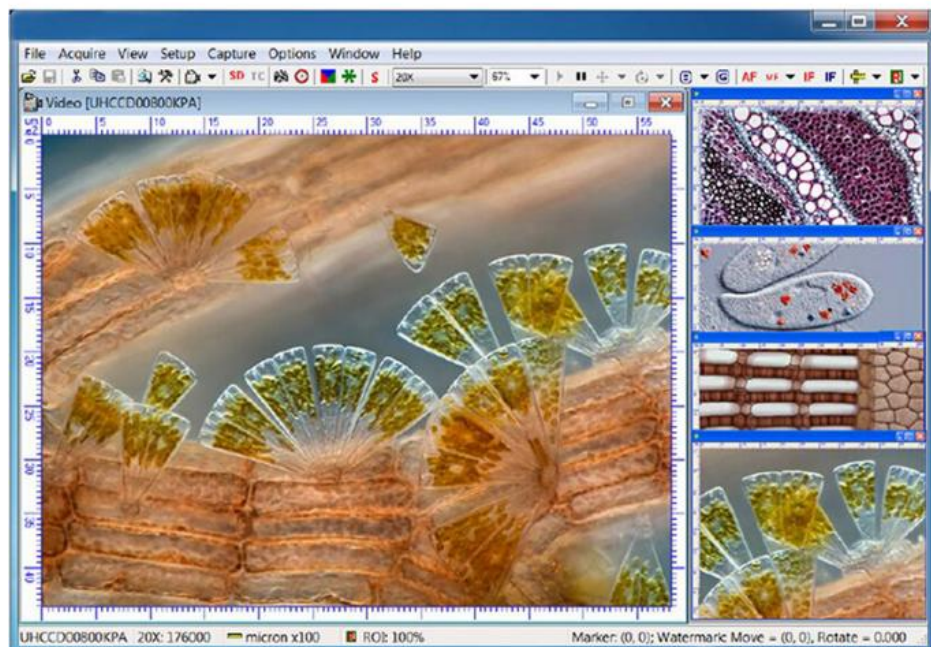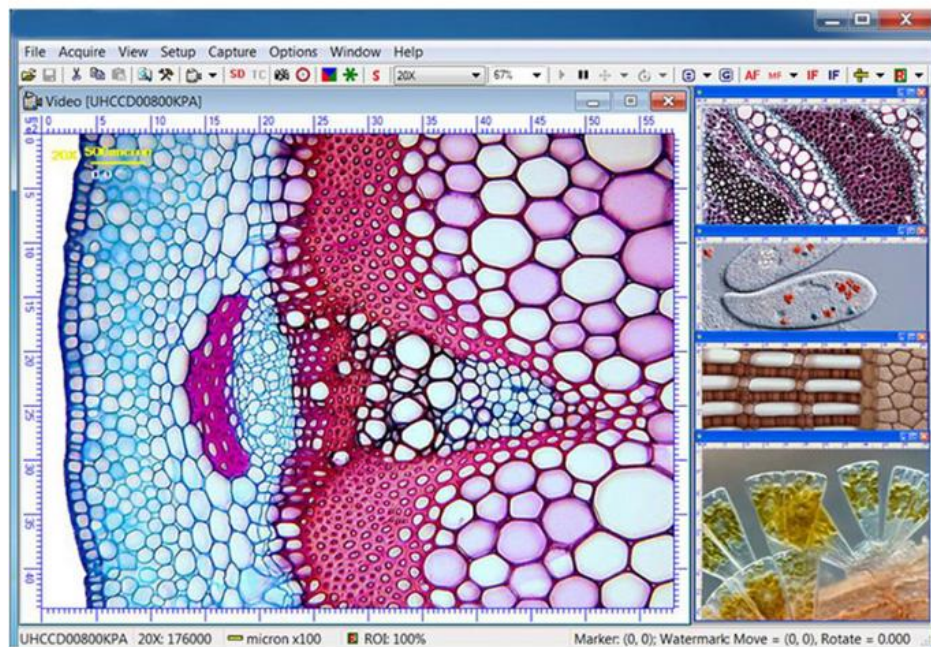
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