

PHOTOSCIENCE

8.3 SCMOS Series USB2.0 Eyepiece Camera

8.3.1 SCMOS Characteristic

- Microscope eyepiece camera with 23.2 diameter and compact size;
- Easy to extend to C or CS- Mount camera with high quality lens(optional);
- High-quality camera with Aptina CMOS sensor;
- Auto white balance and auto-exposure; Brightness, contrast, chroma, and saturation can be adjusted;
- High-speed USB2.0 interface and high frame rate video display keep the screen smooth without interruption;
- With advanced video & image processing application ToupView;
- Providing Windows/Linux/Mac OS multiple platforms SDK;
- Native C/C++, C#, DirectShow, Twain Control API;



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8.3.2 SCMOS Datasheet

ToupTek SCMOS is an economic version with simple and compact structure CMOS eyepiece camera. So here, the S means simple and compact. USB2.0 is used as the data transfer interface.

The SCMOS eyepiece camera comes with high-speed USB2.0 interface and high frame rate video display keep the screen smooth without interruption;

Also the SCMOS comes with advanced video & image processing application ToupView;

The SCMOS can be widely used to transfer the mono or binocular student microscopes to digital microscope.

With 23.2 to 30mm or 23.2 to 30.75 convert ring, the SCMOS camera can also change the stereo microscope to digital stereo microscope.

Order Code	Sensor & Size(mm)	Pixel(μm)	G Responsivity Dynamic range SNRmax	FPS/Resolution	Binning	Exposure
SCMOS05000KPA TP505000A	5.0M/Aptina(C) 1/2.5" (5.70x4.28)	2.2x2.2	NA 0.39	2@2592x1944 3@2048x1536 5@1600x1200 7.5@1280x1024	N/A	Auto
SCMOS03000KPA TP503000A	3.0M/Aptina(C) 1/2.7" (4.506x3.379)	2.2x2.2	NA 0.31	3@2048x1536 5@1600x1200 7.5@1280x1024	N/A	Auto
SCMOS02000KPA TP502000A	2.0M/Aptina(C) 1/3.2" (4.73x3.52)	2.8x2.8	NA0.32	5@1600x1200 7.5@1280x1024 7.5@1280x960 20@800x600	N/A	Auto
SCMOS01300KPA TP501300A	1.3M/Aptina(C) 1/3" (4.60x3.70)	3.6x3.6	NA 0.32	7.5@1280x1024 12.5@1024x768 12.5@800x600	N/A	Auto
SCMOS00350KPA TP500350A	0.35M/Aptina(C) 1/4" (3.58x2.69)	5.6x5.6	NA0.25	30@640x480	N/A	Auto

C: Color; M: Monochrome;

Other Specification for SCMOS Camera

Spectral Range	380-650nm (with IR-cut Filter)
White Balance	Auto White Balance
Color Technique	N/A
Capture/Control API	Native C/C++, C#, DirectShow, Twain and Labview
Recording System	Still Picture and Movie
Cooling System*	Natural

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

Software Environment

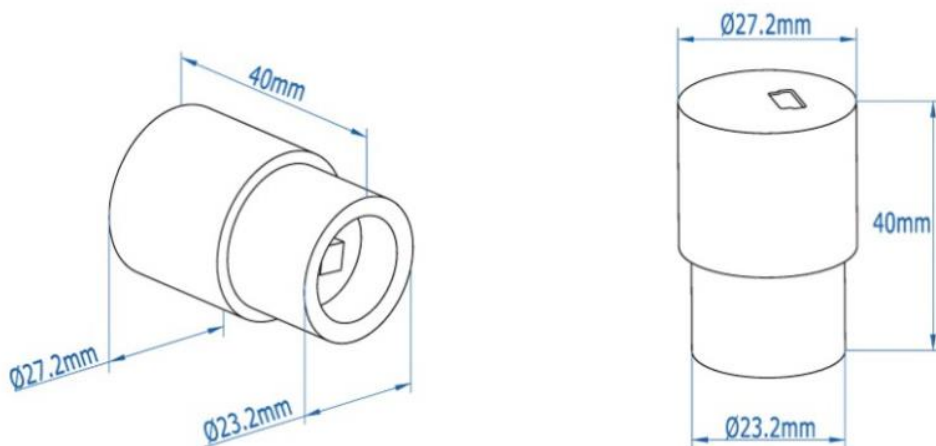
Operating System	Microsoft® Windows® XP / Vista / 7 / 8 (32 & 64 bit) OSx(Mac OS X) Linux
PC Requirements	CPU: Equal to Intel Core2 2.8GHz or Higher
	Memory:2GB or More
	USB Port:USB2.0 High-speed Port
	Display:17" or Larger
	CD-ROM

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8.3.3 Dimension of SCMOS Camera

The SCMOS camera body, made from aluminum alloy blackening, ocular housing: Dia.27.2 X 40mm ensures a heavy duty, workhorse solution. The camera is designed with a high quality IR-CUT filter to filter the infrared light and protect the camera sensor. No moving parts included. These measures ensure a rugged, robust solution with an increased lifespan when compared to other industrial camera solutions.



8.3.4 Packing Information for SCMOS Camera



SCMOS Series USB2.0 CMOS Eyepiece Camera Packing Information

Standard Camera Packing List

A	Carton L:52cm W:32cm H:33cm (50pcs, 12~17Kg/ carton, 0.045m3), not shown in the photo
B	Gift box L:14.5cm W:9.5cm H:6.0cm (0.25~0.35Kg/ box)
C	SCMOS series USB2.0 eyepiece camera
D	High-Speed USB2.0 A male to mini B 5-pin male gold-plated connectors cable /1.5m
E	CD (Driver & utilities software, Ø8cm)

Optional Accessory

F	C-Mount Adapter Housing:108027(HS502)
G	108015(Dia.23.2mm to 30.0mm Ring)/Adaptor rings for 30mm eyepiece tube
H	108016(Dia.23.2mm to 30.5mm Ring)/ Adaptor rings for 30.5mm eyepiece tube
I	108017(Dia.23.2mm to 31.75mm Ring)/ Adaptor rings for 31.75mm eyepiece tube
J	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.)

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