

Touptek USB-Microscope-Camera Series SCMOS

SCMOS Series USB 2.0 - 23.2mm Eyepiece CMOS Camera

Touptek SCMOS is an economic version with simple and compact structure USB2.0 CMOS eyepiece camera. So here, the S means simple and compact. USB 2.0 is used as the data transfer interface.

Microscope eyepiece camera with 23.2 diameter and compact size; available with

The SCMOS eyepiece camera comes with high-speed USB 2.0 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 30 mm or 23.2 to 30.75 convert ring, the SCMOS camera can also change the stereo microscope to digital stereo microscope.

- 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 USB 2.0 interface and high frame rate video display keep the screen smooth without interruption;
- With advanced video & image processing application ToupView;
- Custom programmable with SDK provided;



Available versions:

Order Code	Sensor & Size(mm)	Pixel(µm)	G Responsivity Dynamic range SNRmax	FPS/Resolution	Binning	Exposure
The New SCMOS after Jan. 2020 (7)						
SCMOS12000KPA TP512000A	12M/IMX577(C) 1/2.3" (5.95x4.71)	1.55x1.55	250LSB 70dB 43dB	20@3840x3040 20@1920x1520 20@960x760	1x1 1x1 1x1	0.1-2000 ms
SCMOS00921KPA TP500921A (New)	0.92M/OV9732(C) 1/4" (3.888x2.208)	3x3	2.066V/lux-sec 72dB@8x gain 39dB	30@1280x720 30@640x360	1x1 1x1	0.1ms-650ms
SCMOS08300KPA TP508300A	8.3M/IMX274(C) 1/2.5" (6.22x3.50)	1.62x1.62	236mV 70dB 43dB	30@3840x2160 30@1920x1080 30@1280x720 30@960x540	1x1 1x1 1x1	0.1-2000 ms
SCMOS05100KPA TP505100A	5.1M/AR0521(C) 1/2.5" (5.70x4.28)	2.2x2.2	18.8ke-/lux 73dB 40dB	30@2592x1944 30@1280x960 30@640x480	1x1 1x1 1x1	0.1-1000 ms
SCMOS05100KPB TP505100B	5.1M/IMX335(C) 1/2.8" (5.18x3.89)	2.0x2.0	505mV 70dB 43dB	26@2592x1944 26@1280x960 26@640x480	1x1 1x1 1x1	0.1-2000 ms
SCMOS03100KPA TP503100A	3.1M/Aptina(C) 1/2.5" (5.73x4.3)	2.8x2.8	18.8ke-/lux 73dB 40dB	30@2048x1536 30@1024x768	1x1 1x1	0.1-1000 ms
SCMOS02100KPA TP502100A	2.1M/IMX307(C) 1/2.8" (5.73x4.3)	2.9x2.9	1300mV 73dB 43dB	38@1920x1080 38@960x540	1x1 1x1	0.1-2000 ms
The SCMOS before Dec. 2019 (9)						
SCMOS05000KPA TP505000A	5.0M/Aptina(C) 1/2.5" (5.70x4.28)	2.2x2.2	NA	2@2592x1944 3@2048x1536 5@1600x1200 7.5@1280x1024	N/A	Auto
SCMOS05000KPB TP505000B(NEW)	5.0M/SC5033(C) 1/2.7" (5.18x3.89)	2.0x2.0	2.0V/lux-sec 64dB 35dB	20@2592x1944 20@2048x1536 20@1600x1200 30@800x600	N/A	Auto
SCMOS03000KPA TP503000A	3.0M/Aptina(C) 1/2.7" (4.51x3.38)	2.2x2.2	NA	3@2048x1536 5@1600x1200 7.5@1280x1024	N/A	Auto
SCMOS03000KPB TP503000B(NEW)	3.0M/SmartSens(C) 1/3" (4.10x3.07)	2.0x2.0	2.0V/lux-sec 64dB 35dB	20@2048x1536 20@1600x1200 30@800x600	N/A	Auto
SCMOS02000KPA TP502000A	2.0M/Aptina(C) 1/3.2" (4.48x3.36)	2.8x2.8	NA	5@1600x1200 7.5@1280x1024 20@800x600 22@640x480	N/A	Auto
SCMOS02000KPB TP502000B(NEW)	2.0M/OV2710(C) 1/2.7" (5.76x3.24)	3x3	3.3V/ Lux-sec 69dB 39dB	25@1920x1080 30@1280x1024 30@1280x720	N/A	Auto
SCMOS01300KPA TP501300A	1.3M/Aptina(C) 1/3" (4.60x3.70)	3.6x3.6	NA	7.5@1280x1024 12.5@1024x768 12.5@800x600	N/A	Auto
SCMOS00920KPA TP500A(NEW)	0.92M/BG0703(C) 1/2.7" (5.80x3.28)	4.5x4.5	5.8V/ Lux-sec 65dB 43dB	25@1280x720 25@640x480	N/A	Auto
SCMOS00350KPA TP500350A	0.35M/Aptina(C) 1/4" (3.58x2.69)	5.6x5.6	NA	30@640x480	N/A	Auto

SCMOS05000KPB and SCMOS03000KPB have fast speed than SCMOS05000KPA and SCMOS03000KPA

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#/VB.NET, DirectShow, Twain and Labview
Recording System	Still Picture and Movie
Cooling System*	Natural

Operating Environment

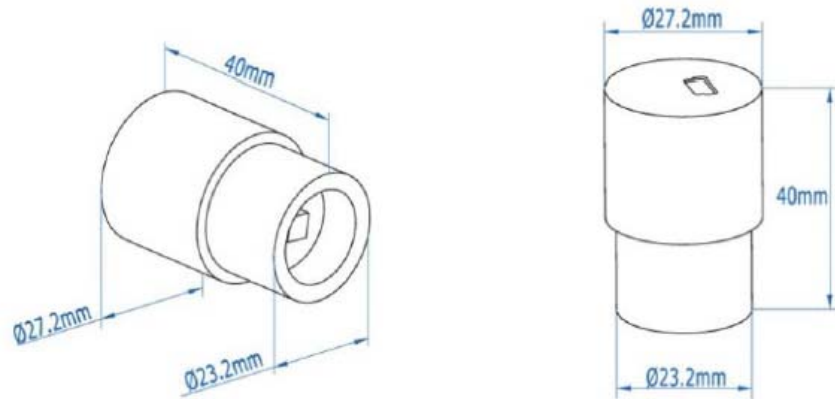
Operating Temperature(in Centidegree)	-10~ 50
Storage Temperature(in Centidegree)	-20~ 60
Operating Humidity	30~80%RH
Storage Humidity	10~60%RH
Power Supply	DC 5V over PC USB Port

Software Environment

Operating System	Microsoft® Windows® XP / Vista / 7 / 8 / 10 (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

Dimension of SCMOS Series Camera

Installation drawings. The SCMOS Camera body, made from aluminum alloy blackening, ocular housing: Dia.32 X 56mm 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.



Dimension of SCMOS Series Camera

Packing Information of SCMOS Series Camera



Standard Camera Packing List

A	Carton L:52cm W:32cm H:33cm (50pcs, 12~17Kg/ carton), not shown in the photo
B	Gift box L:14.5cm W:9.5cm H:6.0cm (0.15~0.15Kg/ box)
C	SCMOS series USB2.0 C-Mount 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.)

Sample images

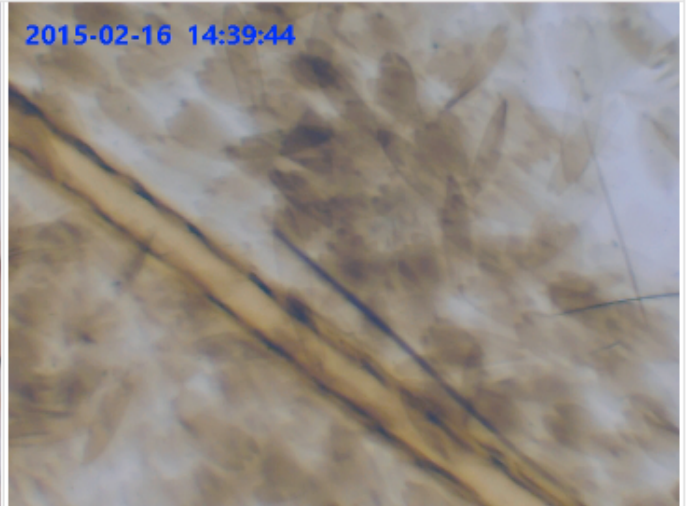
The microscope slide images are captured with TPS007100 slide package and with SCMOS00350KPA camera.

2015-02-16 14:49:52



69. Housefly Wing. W.M

2015-02-16 14:39:44



70. Butterfly Wing. W.M

2015-02-16 14:46:21



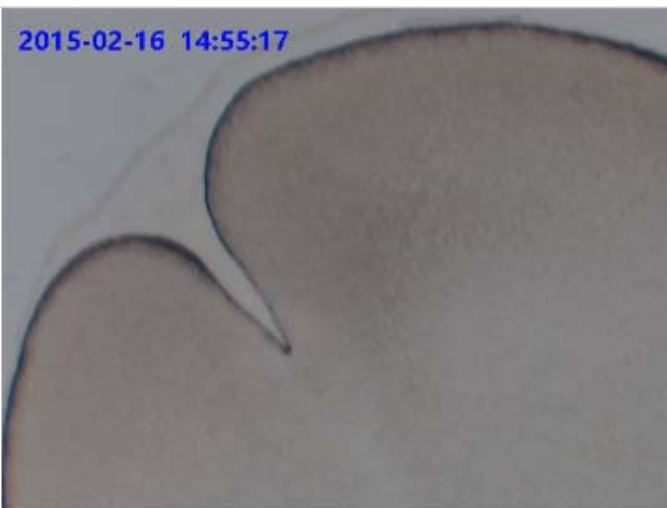
71. Grasshopper Wing. W.M

2015-02-16 14:51:56



72. Frog Egg One Cell Stage. Sec.

2015-02-16 14:55:17



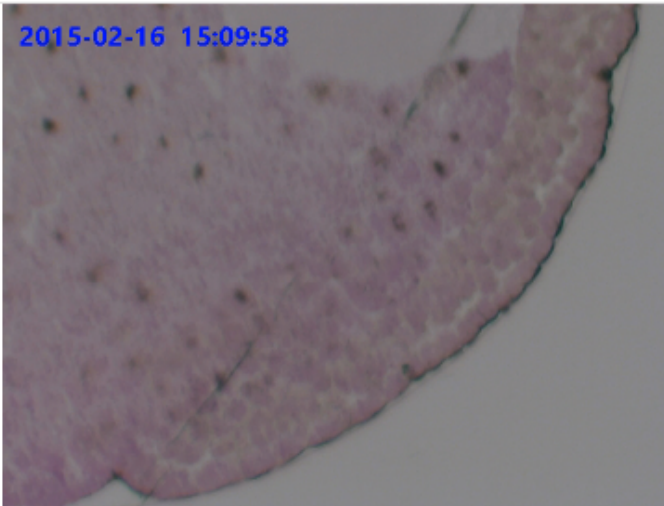
73. Frog Egg Two Cell Stage. Sec.

2015-02-16 15:03:55



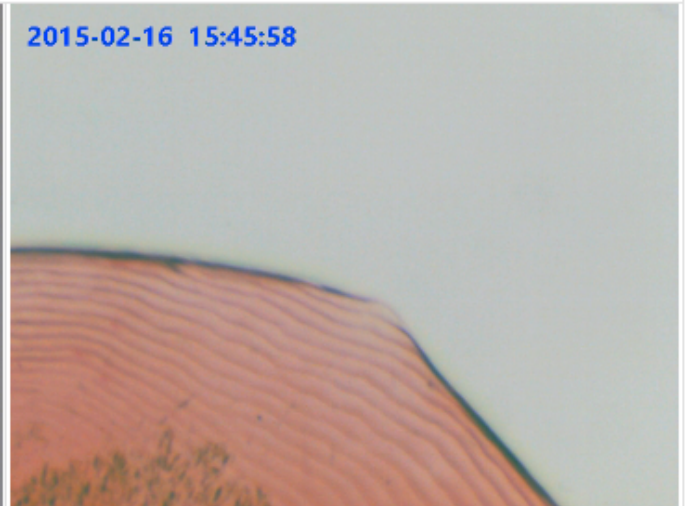
74. Frog Embryo Cleavage Stage. Sec.

The microscope slide images are captured with TPS007100 slide package and with SCMOS00350KPA camera.



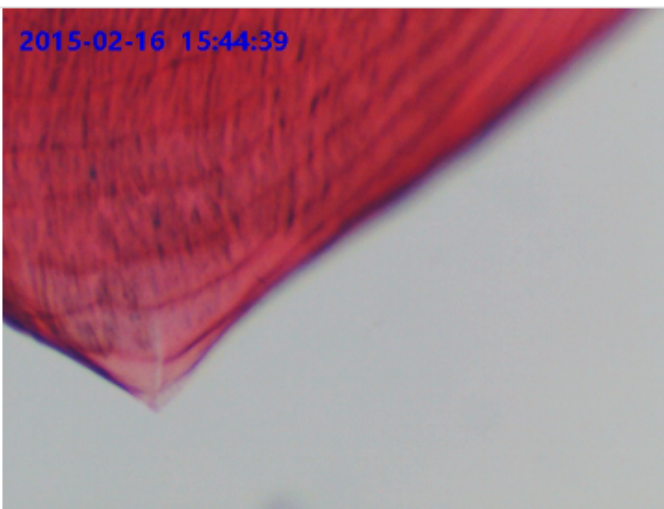
2015-02-16 15:09:58

77. Frog Late Gastrula. Sec.



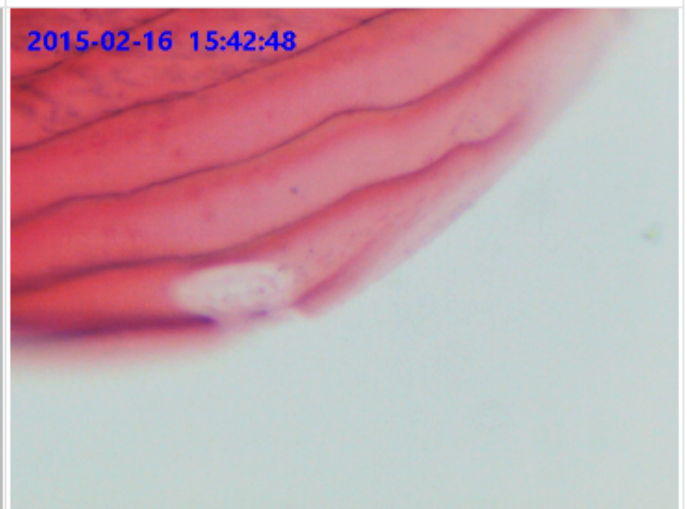
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78. Dogfish Placoid Scales. W. M.



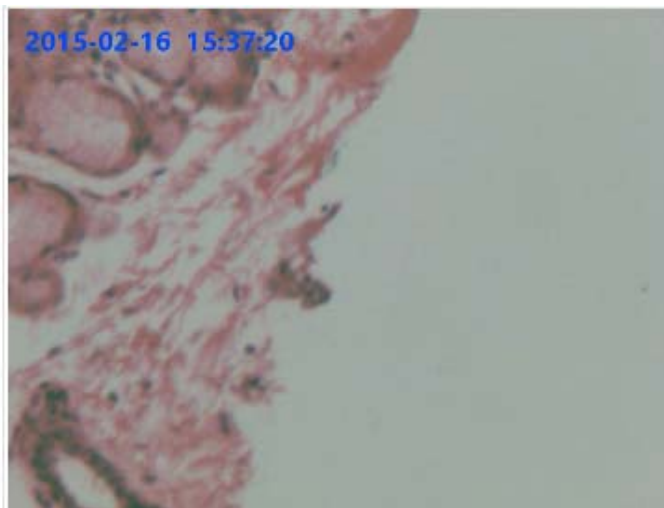
2015-02-16 15:44:39

79. Ctenoid. W.M



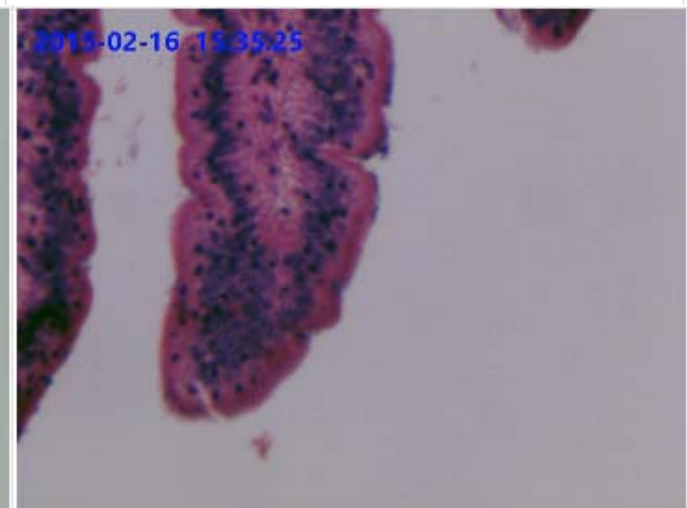
2015-02-16 15:42:48

80. Cycloid. W.M



2015-02-16 15:37:20

83. Stratified Spumous Epithelium. Sec.



2015-02-16 15:35:25

84. Simple Columnar Epithelium. Sec.

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