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Touptek USB-Microscope-Camera Series SPCMOS EyePiece-Camera with integrated Lens

ToupTek SPCMOS is an extension of ToupTek's SCMOS camera with fixed reduction lens to increase the field of view from the microscope eyepiece tube. The SPCMOS is still an economic version with simple and compact structure CMOS eyepiece camera.

So here, the S means simple and compact, P means plus. USB2.0 is used as the data transfer interface.

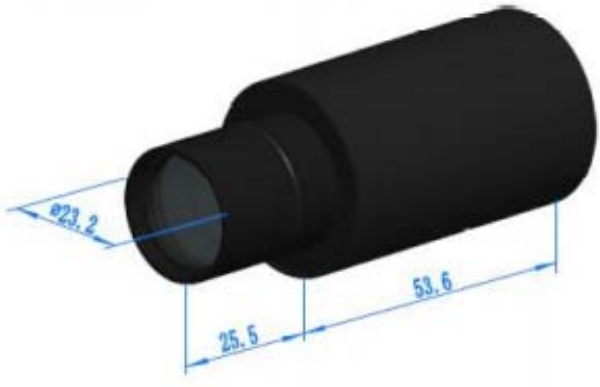
The SPCMOS comes with high-speed USB2.0 interface and high frame rate video display keep the screen smooth without interruption. Also the SPCMOS comes with advanced video & image processing application ToupView.

The SPCMOS 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 SPCMOS camera can also change the stereo microscope to digital stereo microscope.

The basic characteristic of SPCMOS cameras are as follows:

- Microscope eyepiece camera with 23.2 diameter and compact size;
- An extension of ToupTek's SCMOS camera with fixed reduction lens to ensure the full field of view of the
- microscope from the eyepiece can be imaged to the CMOS sensor;
- 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#/VB.NET, DirectShow, Twain Control API

The SPCMOS body, made from aluminum alloy blackening, ocular housing: Dia.33 X 79.1mm 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. This design ensures a rugged, robust solution with an increased lifespan when compared to other industrial camera solutions.



Availabe versions:

Order Code	Sensor & Size(mm)	Pixel(μm)	G Responsivity Dynamic range SNRmax	FPS/Resolution	Binning	Exposure
SPCMOS05000KPA SP505000A	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
SPCMOS03000KPA SP503000A	3.0M/Aptina(C) 1/2.7" (4.51x3.38)	2.2x2.2	NA	3@2048x1536 5@1600x1200 7.5@1280x1024	N/A	Auto
SPCMOS02000KPA SP502000A	2.0M/Aptina(C) 1/3.2" (4.48x3.36)	2.8x2.8	NA	5@1600x1200 7.5@1280x1024 7.5@1280x960 20@800x600	N/A	Auto
SPCMOS01300KPA SP501300A	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
SPCMOS00350KPA SP500350A	0.35M/Aptina(C) 1/4" (3.58x2.69)	5.6x5.6	NA	30@640x480	N/A	Auto

C: Color; M: Monochrome;

Other Specification for SPCMOS Camera	
Spectral Range	380-650nm (with IR-cut Filter)
White Balance	Auto White Balance
Color Technique	N/A
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*	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

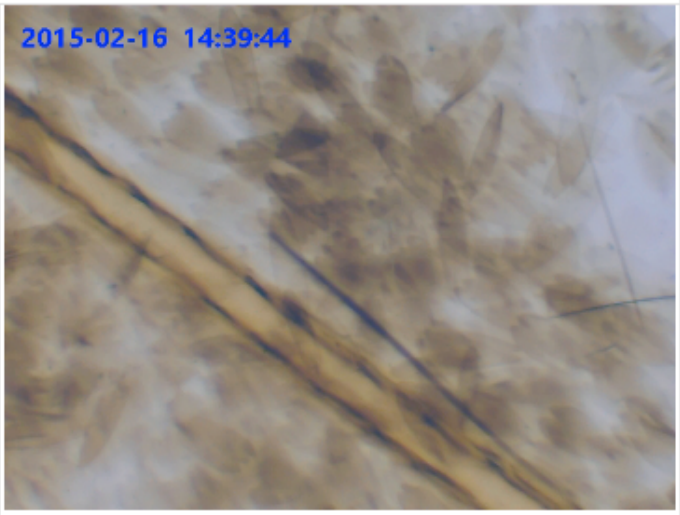
Packing Information of SPCMOS Series Camera

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.)

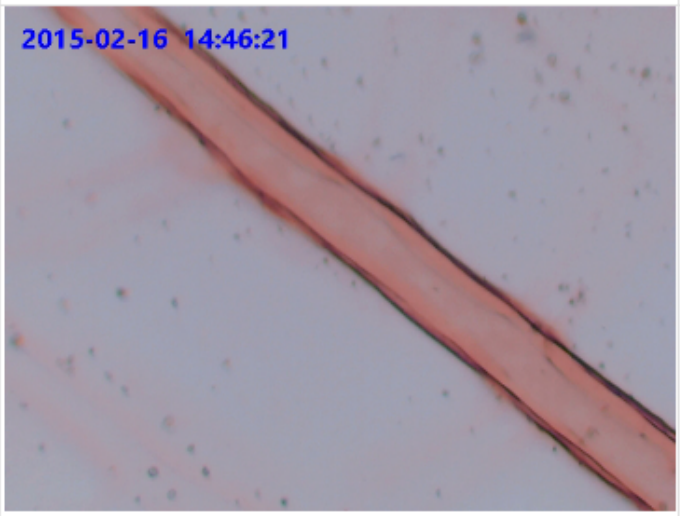
Sample images

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

69.Housefly Wing. W.M

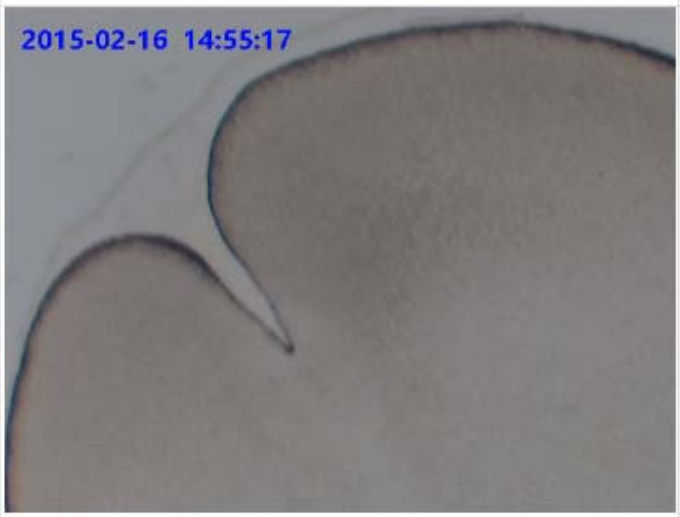


70. Butterfly Wing. W.M



71. Grasshopper Wing. W.M

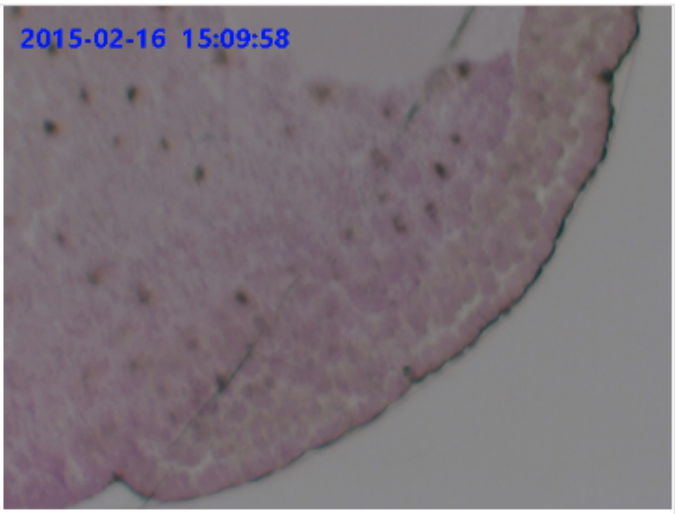
72. Frog Egg One Cell Stage. Sec.



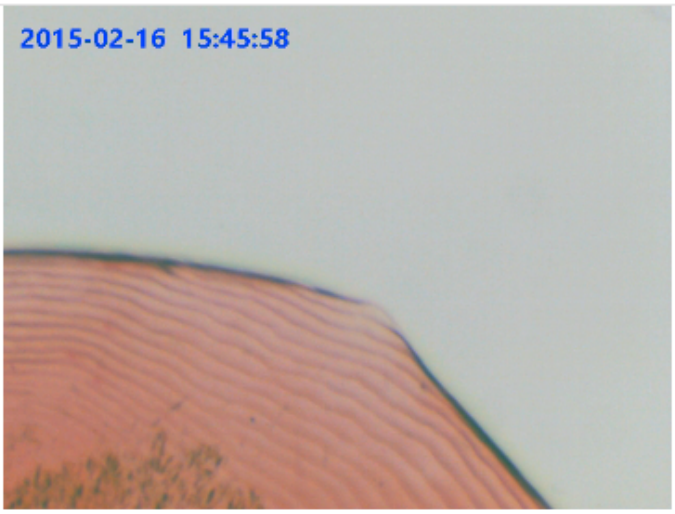
73. Frog Egg Two Cell Stage. Sec.

74. Frog Embryo Cleavage Stage. Sec.

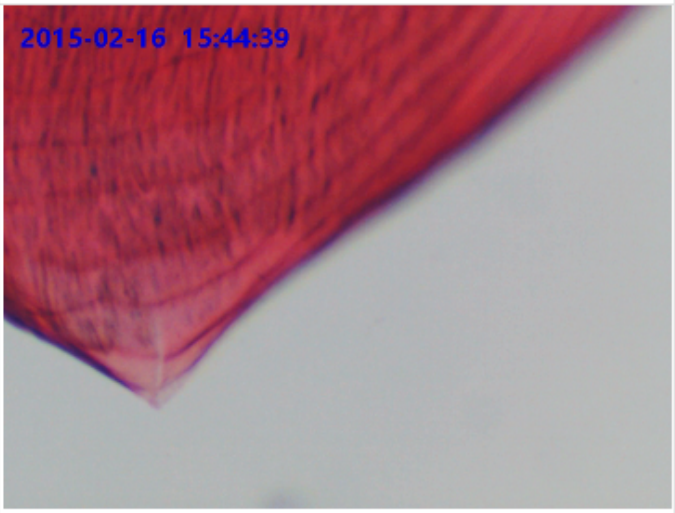
The microscope slide images are captured with TPS007100 slide package and with SCMOS00350KPA camera.



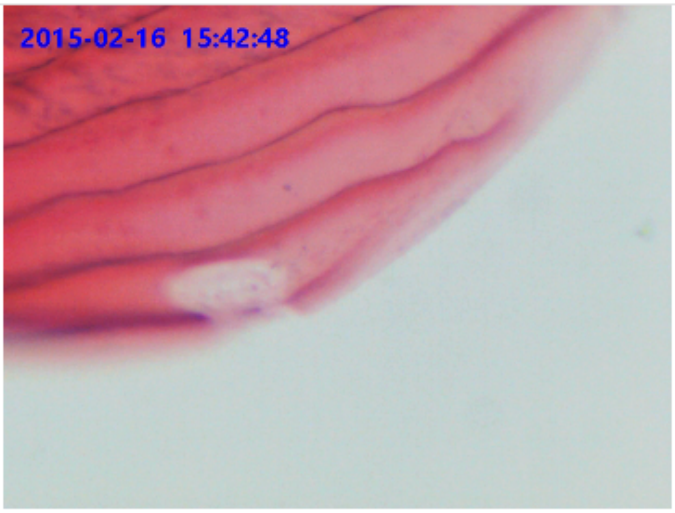
77.Frog Late Gastrula. Sec.



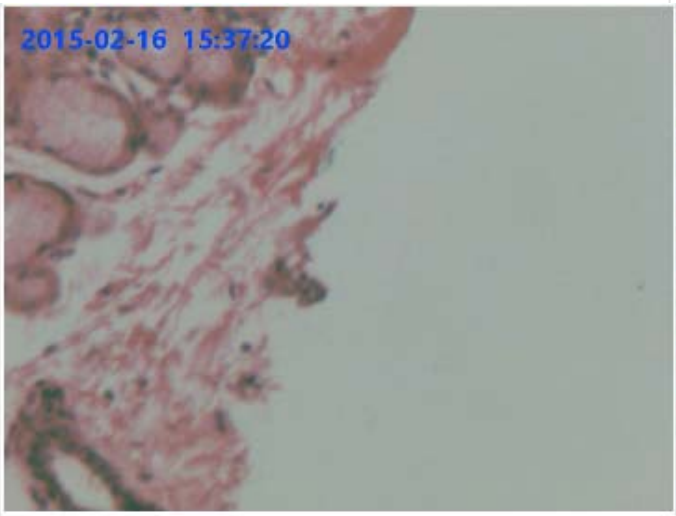
78. Dogfish Placoid Scales. W. M.



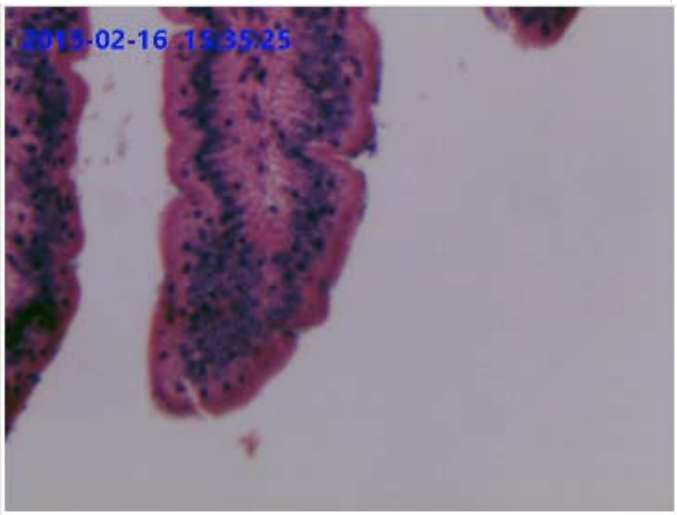
79. Ctenoid. W.M



80.Cycloid. W.M



83. Stratified Spuamous Epithelium. Sec.



84. Simple Columnar Epithelium. Sec.