

C3CMOS Grunddaten

Die USB-Kameras der Serie C3CMOS haben einen Aptina CMOS Sensor zur Bildaufnahme und nutzen USB 3.0 zur schnellen Datenübertragung und Stromversorgung der Kamera.

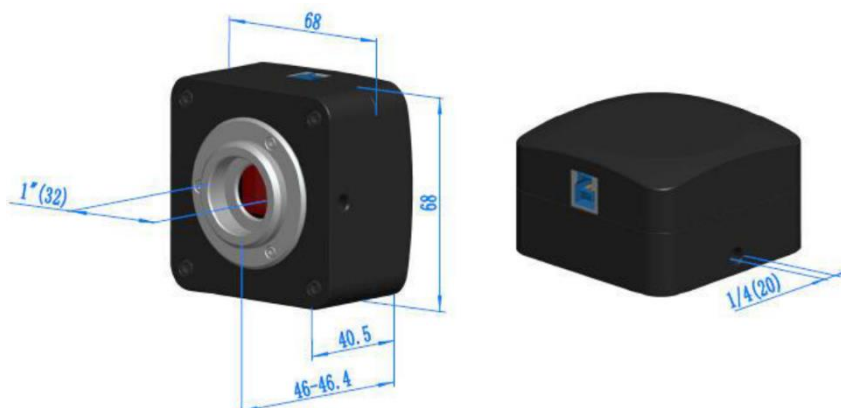
Die C3CMOS Hardware wird in Auflösungen von 3M bis 10M angeboten und wird in einem kompakten Zink-Alu.-Gehäuse mit C-Mount Innengewinde geliefert.

Die mitgelieferte Software ToupView ist einfach zu bedienen, (Menüsprache deutsch einstellbar) erlaubt Einzelbild- und Filmaufnahmen, sowie verschiedene Messmöglichkeiten und Bildkommentare. Als Betriebssystem funktionieren Windows/Linux/ OSX, SDK; Native C/C++, C#/VB.NET, Direct Show, Twain Control API.

Die C3CMOS kann mit optionalen Adaptern anstelle eines Okulars am Mikroskop verwendet werden und erweitert somit die analogen Funktionen in die eines modernen Digitalmikroskops.

Die Grundcharakteristika der C3CMOS Kameras sind:

- Aptina CMOS Sensor mit USB3.0 Interface;
- Real-time 8/12/14/16bit Tiefe, schaltbar (sensorabhängig);
- Ultra niedriges Rauschen und niedrigster Energieverbrauch
- Mit Hardware-Auflösungen von 3M bis 10M;
- Rolling Shutter oder Global Shutter;
- Standard C-Mount Anschluss;
- CNC Aluminiumlegierung Gehäuse
- USB3.0,5 Gbps Interface für hohe Bildraten
- Mit umfangreicher Video- und Bildverarbeitungssoftware ToupView;
- Geeignet für Windows/Linux/Mac OS Betriebssysteme
- SDK Native C/C++, C#/VB.Net, DirectShow, Twain, LabView



Lieferbare Versionen:

10.9.2 C3CMOS Datasheet(4)

Order Code	Sensor & Size	Pixel(μm)	G Responsivity Dynamic range SNRmax	FPS/Resolution	Binning	Exposure
C3CMOS10000KPA CP110001A 20190518	10M/MT9J003(C) 1/2.3" (5.98x4.58)	1.67x1.67	0.31v/lux-sec 65.2dB 34dB	7.2@3664x2748 23.8@1832x1374 77.4@912x686	1x1 2x2 4x4	0.1ms~2000ms
C3CMOS05100KPA CP105100A 20181030	5.1M/MT9P006(C) 1/2.5" (5.70x4.28)	2.2x2.2	1.76v/lux-sec 67.74dB 38.5dB	14.0@2592x1944 29.4@1280x960 103.1@640x480	1x1 2x2 4x4	0.1ms~2000ms
C3CMOS05100KPB CP105100B 20200118	5.1M/IMX335(C) 1/2.8" (5.18x3.89)	2.0x2.0	505mV 70dB 43dB	20@2592x1944 40@1296x972	1x1 2x2	0.1ms~2000ms
C3CMOS03500KPA CP103500A 20200118	3.5M/SC4236(C) 1/2.6" (5.76x3.84)	2.5x2.5	3.0v/lux-sec 72dB 37dB	30@2304x1536 30@1152x768	1x1	0.1ms~2000ms

C: Color; M: Monochrome;

Other Specification for C3CMOS Camera	
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*	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: USB3.0 High-speed Port
	Display:17" or Larger
	CD-ROM

Lieferumfang



Standard Camera Packing List

A	Carton L:52cm W:32cm H:33cm (20pcs, 12~17Kg/ carton), not shown in the photo
B	Gift box L:15cm W:15cm H:10cm (0.67~0.7Kg/ box)
C	U3CMOS series USB3.0 C-mount CMOS camera
D	High-speed USB3.0 A male to B male gold-plated connectors cable /2.0m
E	CD (Driver & utilities software, Ø12cm)

Optional Accessory

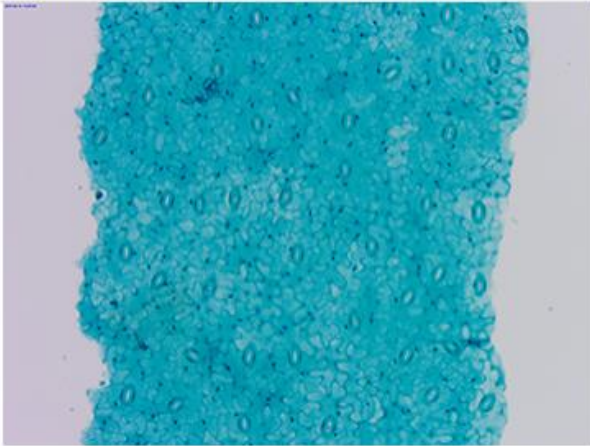
F	Adjustable lens adaptor	C-mount to Dia.23.2mm eyepiece tube (Please choose 1 of them for your microscope)	108001/AMA037 108002/AMA050 108003/AMA075
		C-mount to Dia.31.75mm eyepiece tube (Please choose 1 of them for your telescope)	108008/ATA037 108009/ATA050 108010/ATA075
G	Fixed lens adaptor	C-mount to Dia.23.2mm eyepiece tube (Please choose 1 of them for your microscope)	108005/FMA037 108006/FMA050 108007/FMA075
		C-Mount to Dia.31.75mm Eyepiece Tube (Please choose 1 of them for your telescope)	108011/FTA037 108012/FTA050 108013/FTA075
<p>Note: For F and G 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;</p>			
H	108015(Dia.23.2mm to 30.0mm Ring)/Adaptor rings for 30mm eyepiece tube		
I	108016(Dia.23.2mm to 30.5mm Ring)/ Adaptor rings for 30.5mm eyepiece tube		
J	108017(Dia.23.2mm to 31.75mm Ring)/ Adaptor rings for 31.75mm eyepiece tube		
K	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.)	

Optionale Adapter:

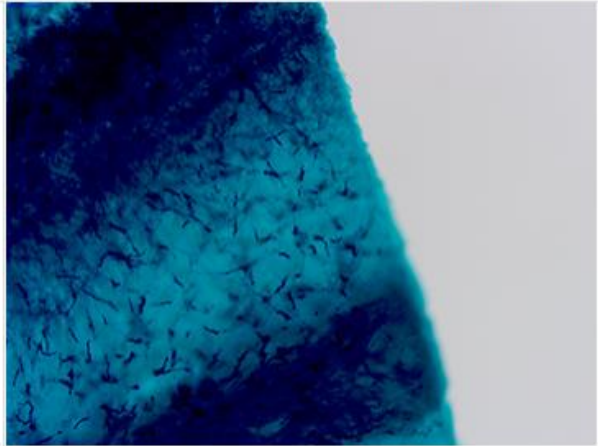


Beispielbilder – Aufgenommen mit C3CMOS Camera

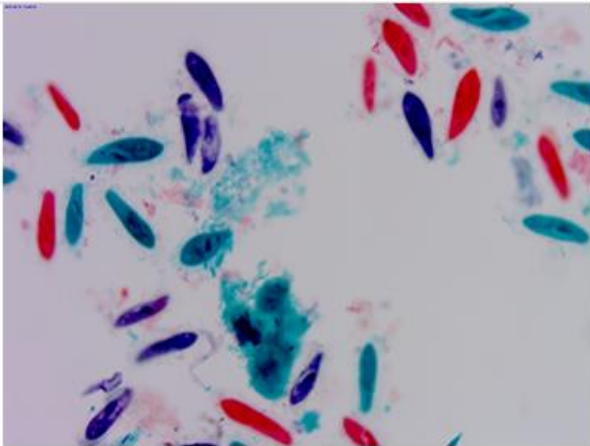
The microscope slide images are captured with TPS006050 slide(01-025) package and with U3CMOS18000KPA camera.



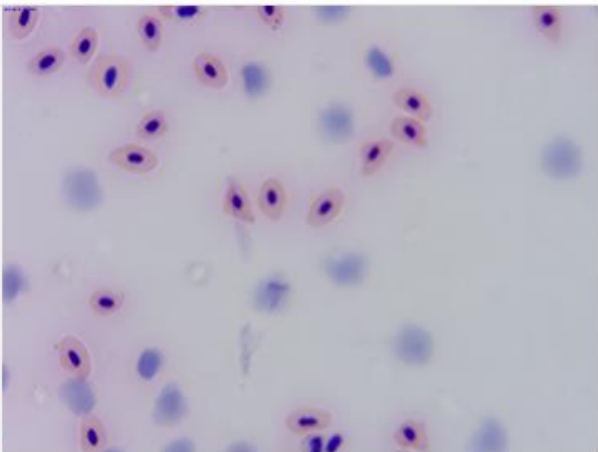
1. Broad Bean Leaf Epidermis W.M



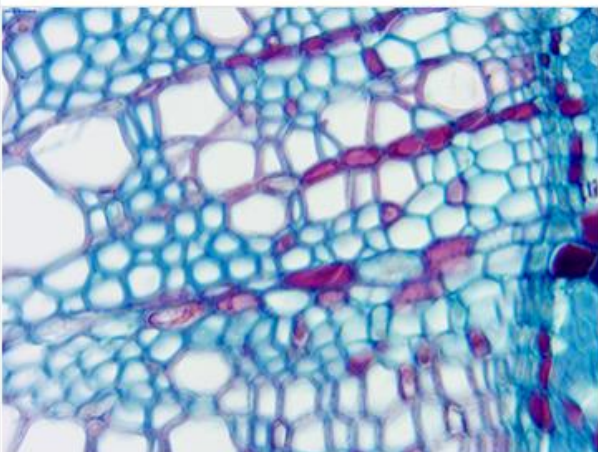
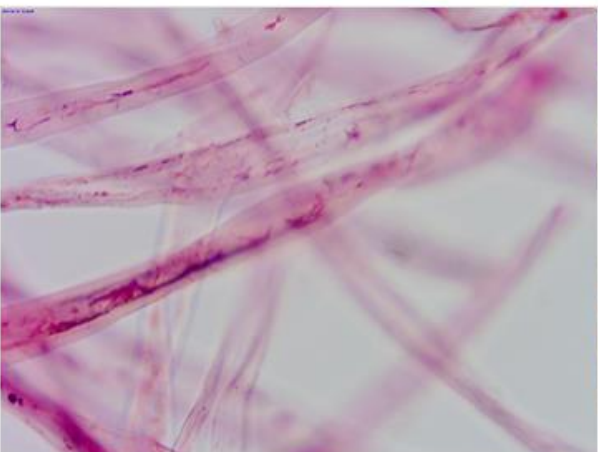
2. Penicillium W.M



17. Housefly Foot W.M

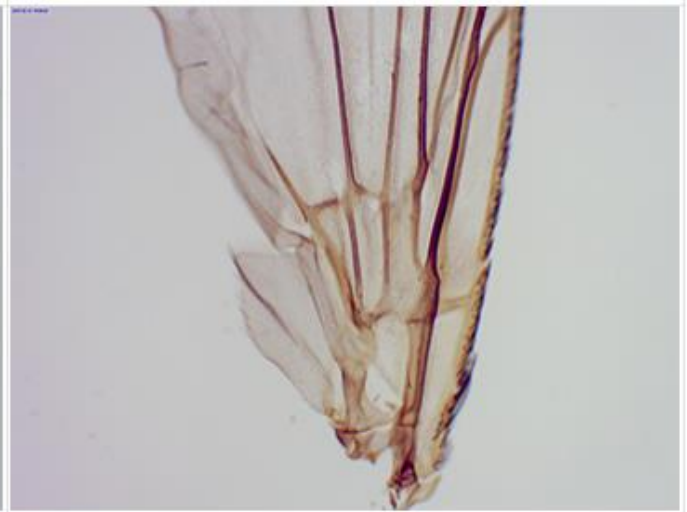


18. Blood of Frog Smear

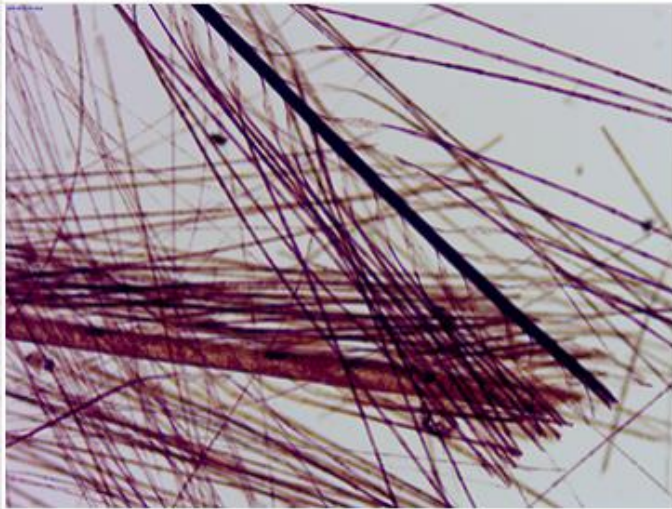




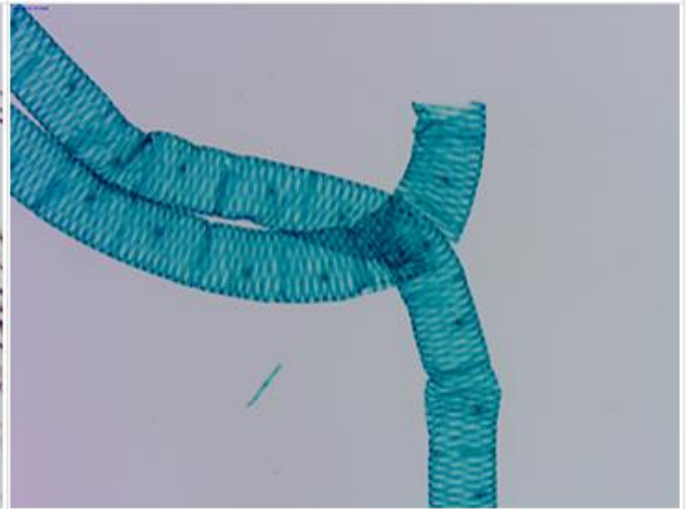
11. Pine Mature Pollen Grain



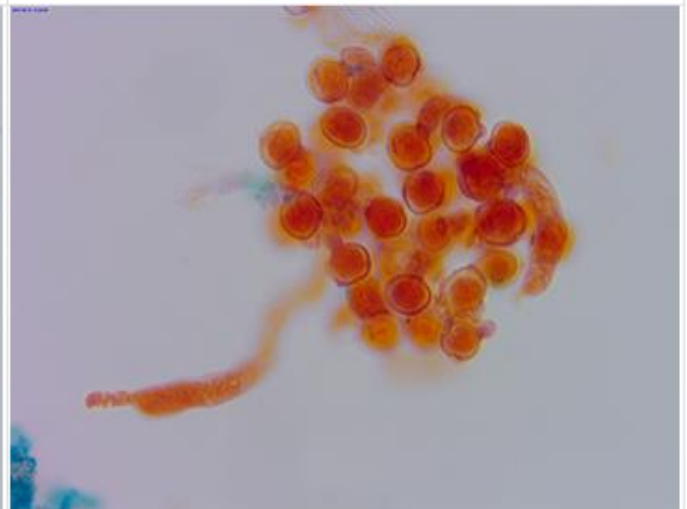
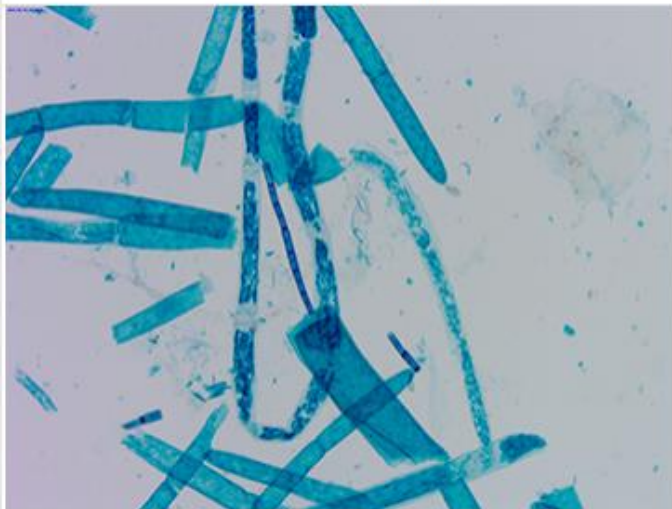
12. Housefly Wing W.M



13. Bird Feather W.M



14 Spirogyra W.M



Alle Aufnahmen gemacht durch ToupTek