

L3CMOS Basic Characteristic

L3CMOS is Luxurious USB3.0 CMOS camera with frame buffers and it adopts ultra-high performance CMOS sensor as the image-picking device, and USB3.0 is used as the data transfer interface.

L3CMOS comes with advanced video & image processing application ToupView; Providing Windows/Linux/ OS X multiple platforms SDK; Native C/C++, C#/VB.NET, DirectShow, Twain Control API;

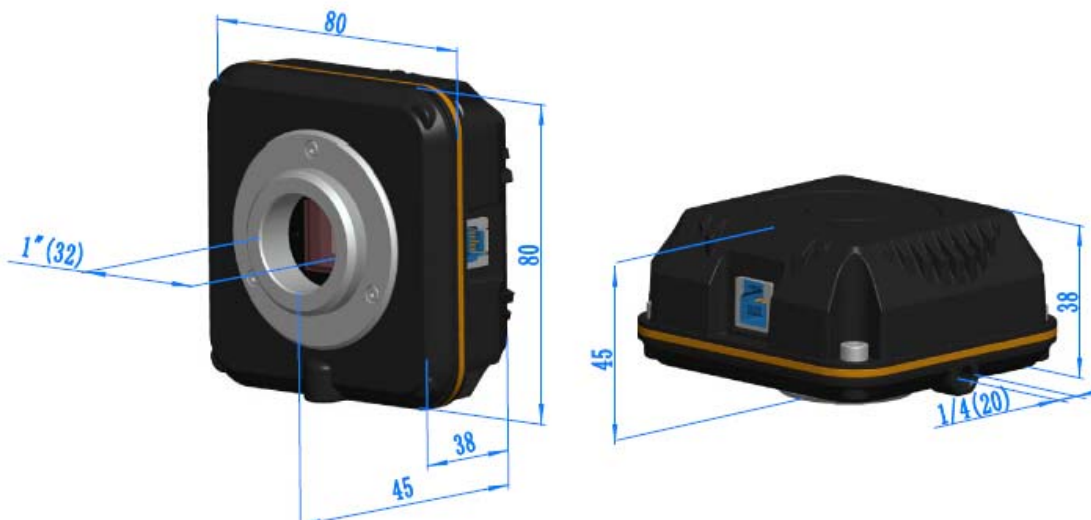
The L3CMOS can be widely used in bright field light environment and microscope image capture and analysis.

The basic characteristic of E3CMOS cameras are as follows:

- C-Mount camera has 25.4 mm or 1 inch diameter with 32 threads per inch;
- Scientific research grade camera with Aptina CMOS sensor; w
- with hardware resolution among 1.2M to 14M;
- On-board memory for perfect synchronization, higher frame rate and stable performance;
- High performance cooling structure, ensures low image noise;
- USB3.0 5 Gbps interface ensuring high frame rate;
- Ultra-Fine™ color engine with perfect color reproduction capability;
- 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;



Sizes



Available Versions:

Order Code	Sensor & Size(mm)	Pixel(μm)	G Sensitivity Dynamic Range SN Ratio	FPS/Resolution	Binning	Exposure
L3CMOS14000KPA LP114000A	14M/MT9F002(C) 1/2.3" (5.73x4.60)	1.4x1.4	0.724v/lux-sec 65.3dB 35.5dB	6.2@4096x3286 20.8@2048x1644 53.3@1024x822	1x1,2x2,4x4	0.1ms~2000ms
L3CMOS10000KPA LP110000A	10M/MT9J003(C) 1/2.3" (5.98x4.58)	1.67x1.67	0.31v/lux-sec 65.2dB 34dB	7.2@3584x2746 24.5@1792x1372	1x1,2x2,4x4	0.1ms~2000ms
L3CMOS08500KPA LP108500A	8.5M/Special(C) 1/2.4" (5.56x4.26)	1.67x1.67	0.31v/lux-sec 65.2dB 34dB	8.3@3328x2548 26.2@1664x1272	1x1,2x2,4x4	0.1ms~2000ms
L3CMOS05100KPA LP105100A	5.1M/MT9P006(C) 1/2.5" (5.63x4.23)	2.2x2.2	1.76v/lux-sec 67.74dB 38.5dB	14.2@2560x1922 38.3@1280x960 101.2@640x480	1x1,2x2,4x4	0.05ms~2000ms
L3CMOS03100KPA LP103100A	3.1M/AR0330(C) 1/3" (4.51x3.37)	2.2x2.2	1.9v/lux-sec 100dB 39dB	27.3@2048x1534 53.3@1024x770	1x1, 2x2	0.1ms~2000ms

C: Color; M: Monochrome;

Other Specification for L3CMOS 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 API	Native C/C++, C#/VB.NET, DirectShow, Twain and Labview
Recording System	Still Picture and Movie
Cooling System*	Natural with High Performance Cooling Structure

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

Packing Information



Packing Information of L3CMOS

Standard Camera Packing List			
A	Carton L:40cm W:36cm H:36cm (16pcs, 12~17Kg/ carton), not shown in the photo		
B	Gift box L:16.4cm W:16.4cm H:9.6cm (0.72~0.8Kg/ box)		
C	L3CMOS 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 adapter	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 Adapter	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
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;			
H	108015(Dia.23.2mm to 30.0mm Ring)/ Adapter rings for 30mm eyepiece tube		
I	108016(Dia.23.2mm to 30.5mm Ring)/ Adapter rings for 30.5mm eyepiece tube		
J	108017(Dia.23.2mm to 31.75mm Ring)/ Adapter 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.)	

Optional Adapters

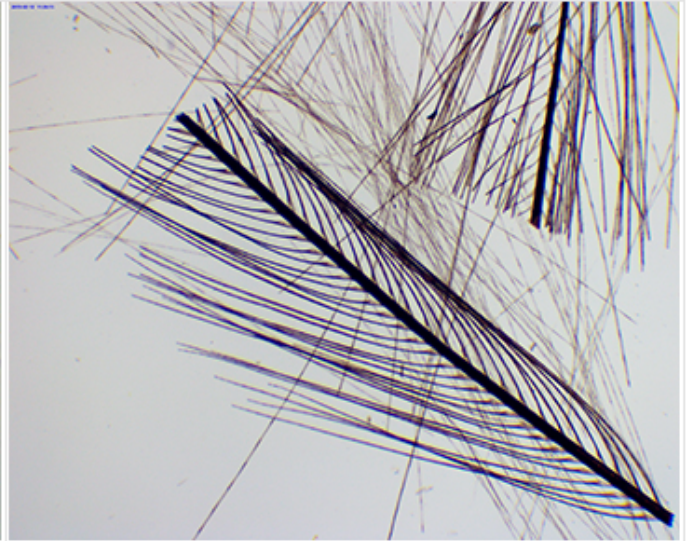
Microscope Camera		
	L3CMOS+AMAXXX(23.2mm Adapter)	L3CMOS+FMAXXX(23.2mm Adapter)
Telescope Camera		
	L3CMOS+ATAXXX(31.75mm Adapter)	L3CMOS+FTAXXX(31.75mm Adapter)

Sample Images 1 Captured with L3CMOS Camera(L3CMOS14000KPA)

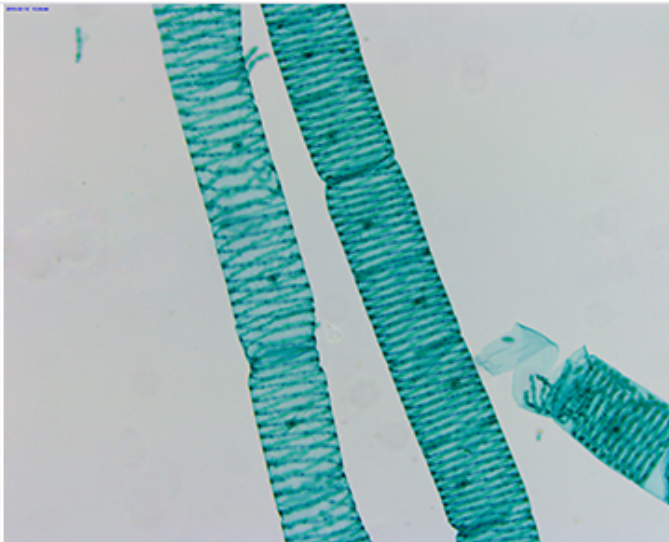
The microscope slide images are captured with TPS004025 slide package and with L3CMOS14000KPA camera.



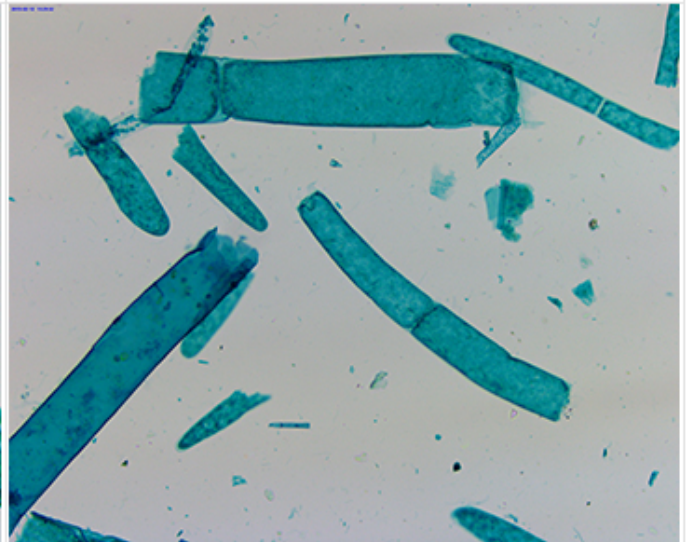
1. Housefly Wing W.M.



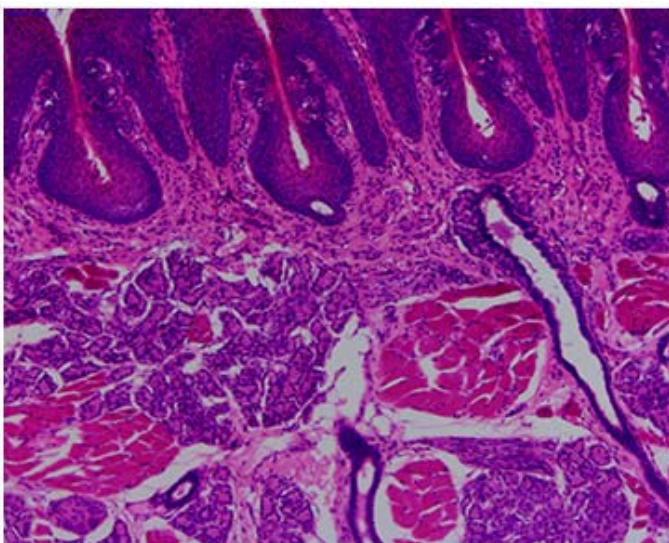
2. Bird Feather W.M.



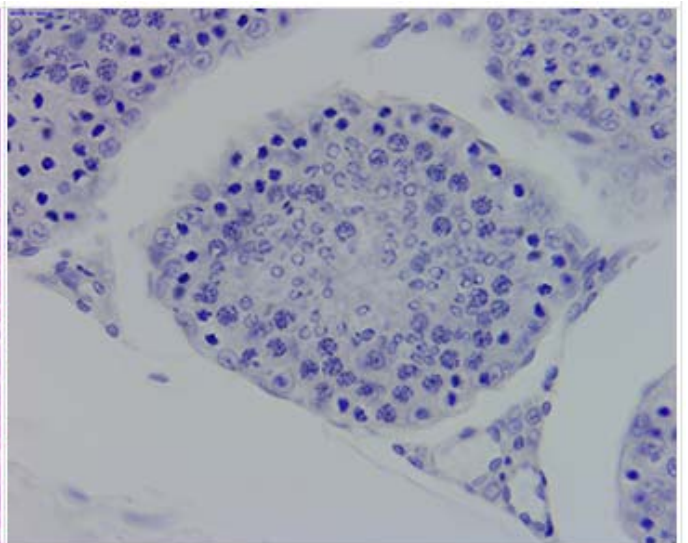
3. Spirogyra W.M.



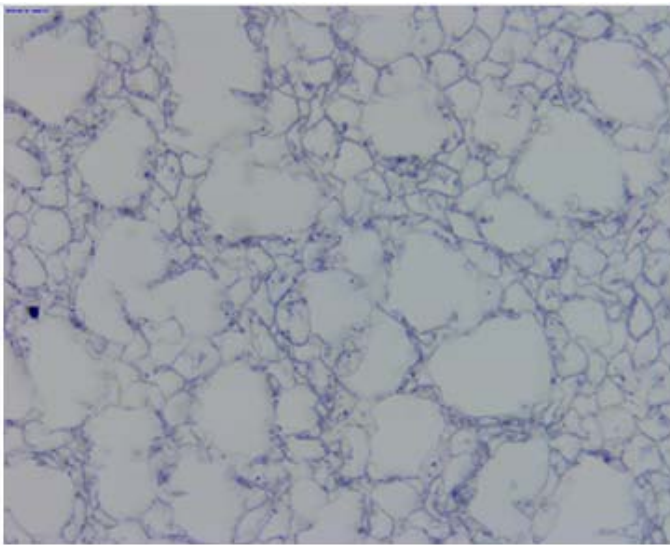
4. Moss Protonema W.M.



15. Taste Bud Sec(Rabbit)



16.Spermary Sec



17.Umbrella Mushroom Sec



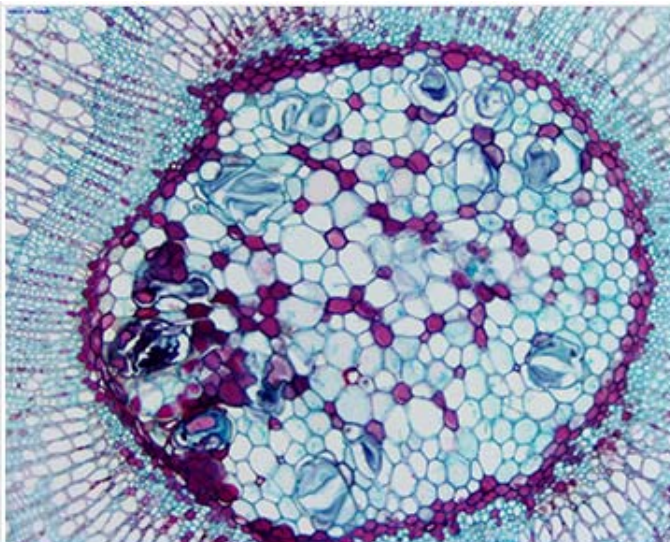
18.Honey Bee Third Pair of Legs W.M.



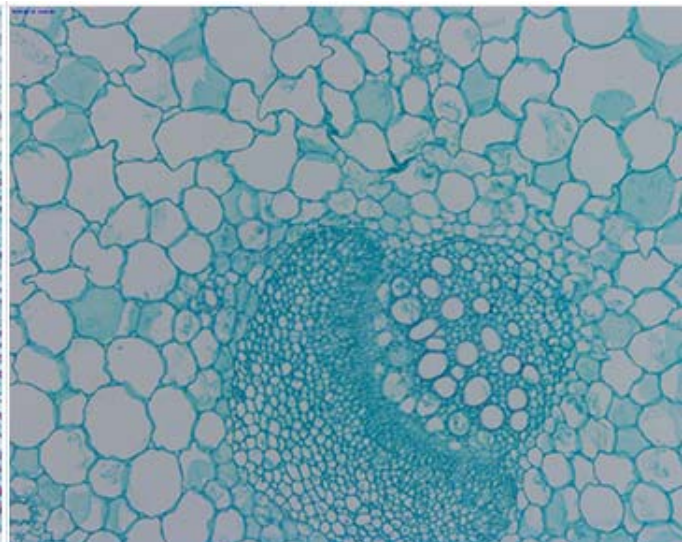
19.Honey Bee Mouth Parts W.M.



20.Winter Jasmine Leaf W.M.



21.Stem to Show Annual Rings C.S.



22.Collenchyma

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