E3CM Series C-mount USB3.0 Camera

E3CM adopt SONY Exmor CMOS sensor as the image-picking device and USB2.0 is used as the data transfer interface.

E3CM hardware resolutions range from 1.2M to 8.3M and come with the integrated CNC aluminum alloy compact housing. E3CMOS comes with advanced video & image processing application ToupView; Providing Windows/Linux/macOS/Android multiple platform SDK(Native C/C++, C#/VB.NET, Python, Java, DirectShow, Twain, etc);

The E3CM can be widely used in bright field light environment and microscope image capture and analysis with higher frame rate.

- SONY Exmor,Exmor R(Back-illuminated), Exmor RS CMOS sensor with USB3.0 interface;
- Real-time 8/12/14/16bit depth switch(depending on sensor);
- Super high sensitivity up to 1120mV(IMX185);
- Ultra-low noise and low power dissipation by using column-parallel A/D conversion;
- With hardware resolution among 0.4M to 20M;
- Rolling shutter or global shutter;
- Standard C-Mount camera;
- CNC aluminum alloy housing;
- USB3.0 5Gbps interface ensuring high frame rates;
- With advanced video & image processing application ToupView/ToupLite;
- ProvidingWindows/Linux/Mac OS multiple platforms SDK;
- Native C/C++, C#/VB.Net, DirectShow, Twain, LabView

Related Models

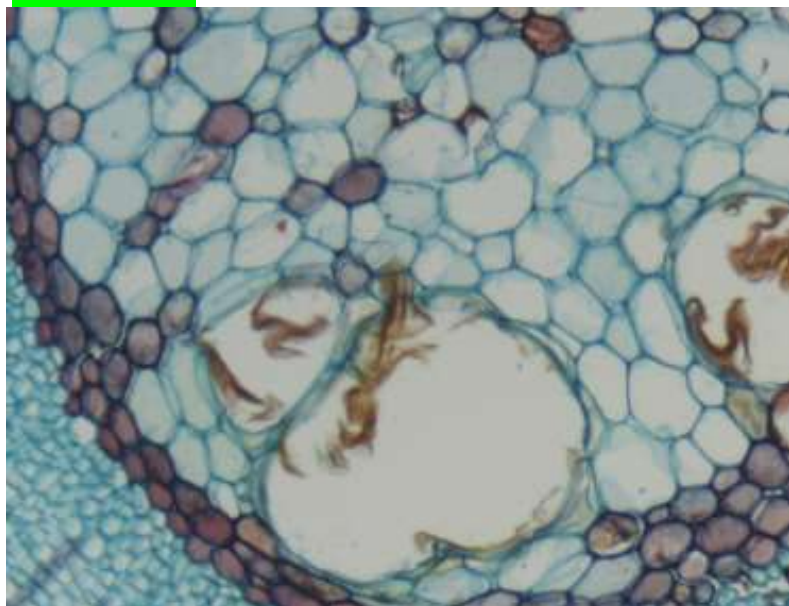| Order Code	Sensor & Size (mm)	Pixel (µm)	G Sensitivity Dark Signal	FPS/Resolution ADC	Binning	Exposure
E3CM20MP	20M/IMX147(C) 1/2.1 "(6.24x4.67)	1.2 x1.2	130mv with 1/30s 0.1mv with 1/30s	5.2@5200x3888 15@2592x1944 30@1728x1296 8 Bit / 12 Bit	1x1 2x2 3x3	0.1ms~15s

Specification

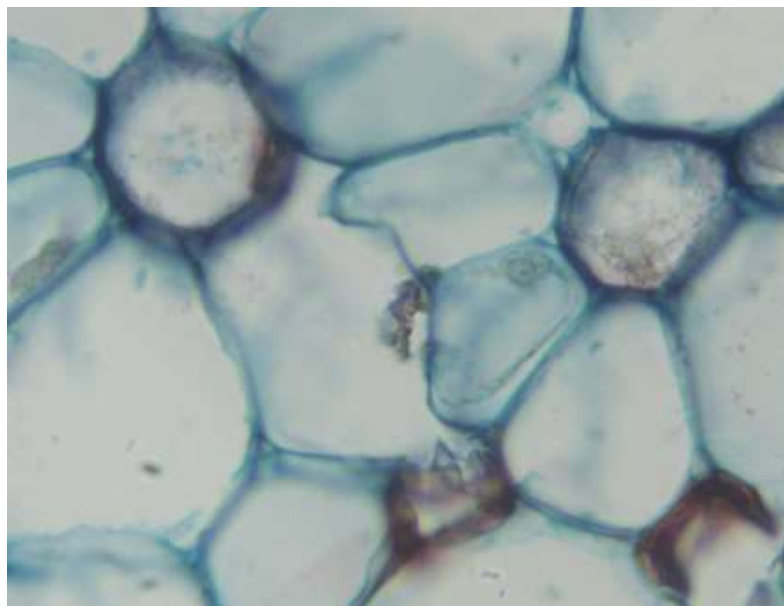| Other Specification	
Spectral Range	380-650nm (with IR-cut Filter)
White Balance	ROI White Balance/ Manual Temp Tint Adjustment/NA for Monochromatic Sensor
Color Technique	Ultra-Fine Color Engine/NA for Monochromatic Sensor
Capture/Control SDK	Windows/Linux/macOS/Android Multiple Platform SDK(Native 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 /11 (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

Application

The E3CMOS series can be widely used in bright field light environment and microscope image capture and analysis with higher frame rate.
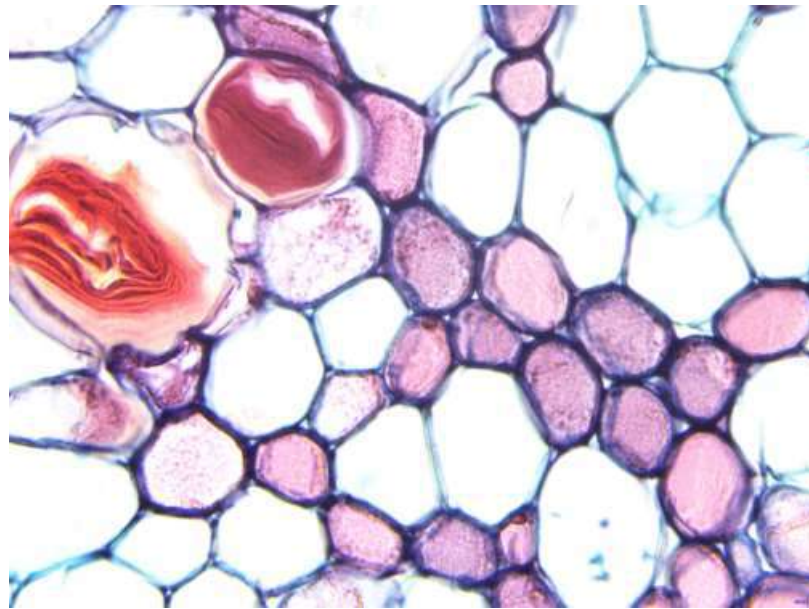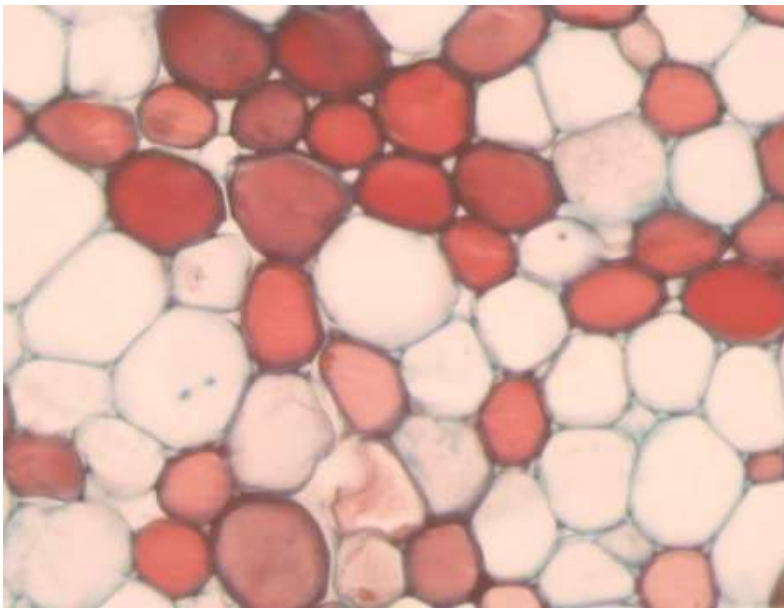
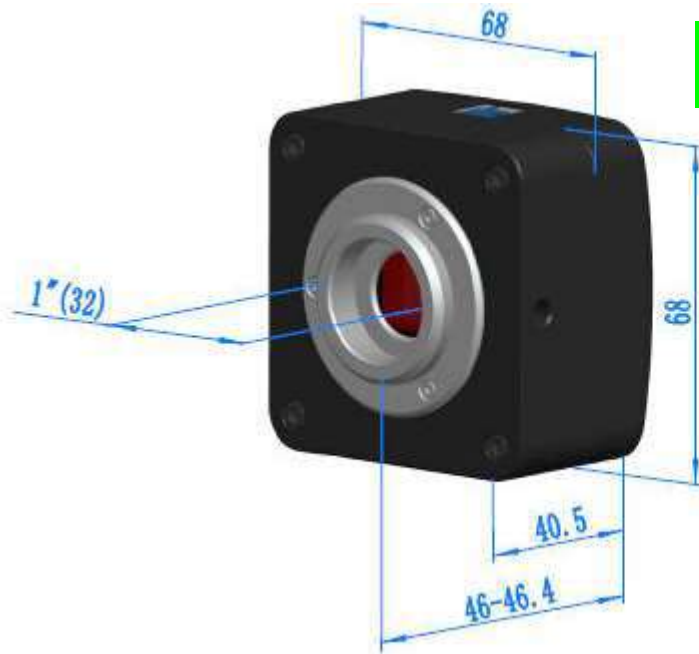# Instance

Plant Cell

Cross-section of a water lily stem

Plant Cell

Plant Cell

E3CMOS Camera Dimensions

68

1″(32)

68

40.5

46-46.4

1/4(20)

Packing List

B

E

C

D

K

F

G

H

I

J

CCD & CMOS Digital Camera Solution Disk

Packing Information of E3CMOS Series

	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 (0.58~0.6Kg/ box)			
C	One E3CMOS series 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 108004/AMA100
		C-mount to Dia.31.75mm eyepiece tube (Please choose 1 of them for your telescope)	108008/ATA037 108009/ATA050 108010/ATA075 108011/ATA100
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 108008/FMA100
		C-Mount to Dia.31.75mm eyepiece tube (Please choose 1 of them for your telescope)	108011/FTA037 108012/FTA050 108013/FTA075 108014/FTA100
	Note: For F and G optional items, please specify your Camera type(C-mount, microscope camera or telescope camera) , 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.)		