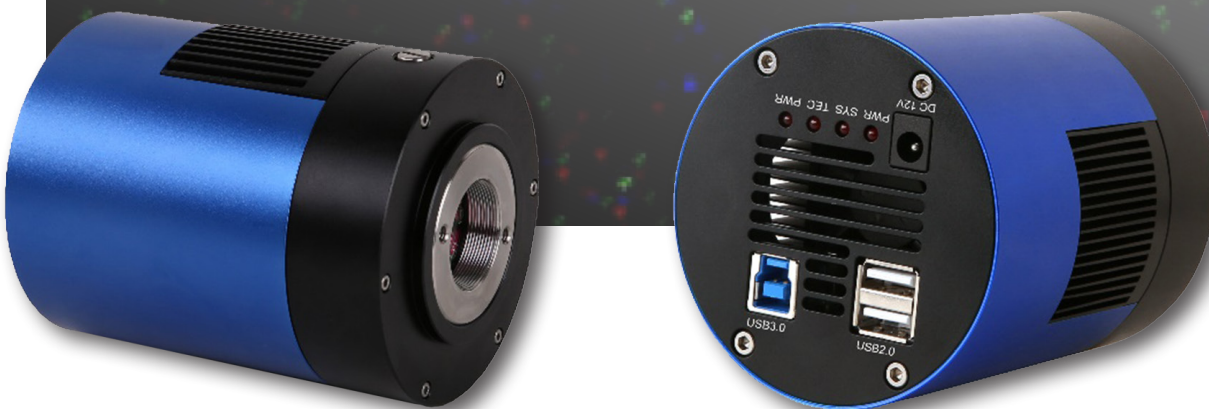




# LC-29

**Cooled C-mount USB3.0 CMOS Camera  
for Low Light and Fluorescent  
Microscope**



## LC-29 Cooled C-mount USB3.0 CMOS Camera

**LC-29 Cooled C-mount USB3.0 CMOS Camera** have adopted SONY Exmor CMOS sensor as the image-picking device and USB3.0 is used as the transfer interface to increase the frame rate.

With the two-stage peltier cooling sensor chip to -42 degree below ambient temperature. This will greatly increase the signal to noise ratio and decrease the image noise. Smart structure is designed to assure the heat radiation efficiency and avoid the moisture problem. Electric fan is used to increase the heat radiation speed.

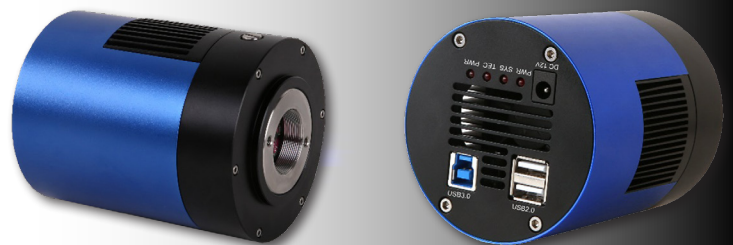
**LC-29 Cooled C-mount USB3.0 CMOS Camera** come with advanced video & image processing application ImageView; Providing Windows/Linux/OSX multiple platform SDK; Native C/C++, C#/VB.NET, DirectShow, Twain Control API.

The **LC-29 Cooled C-mount USB3.0 CMOS Camera** can be widely used in low light environment and microscope fluorescence image capture and analysis, as well as the astronomy deep sky applications.

## FEATURES

**The basic characteristic of LC-29 Cooled C-mount USB3.0 CMOS Camera can be summarized as follows:**

- Standard C-Mount camera with SONY Exmor CMOS sensors from 1.7M to 20M;
- Two-stage TE-cooling with controllable electric fan;
- Sensor chip cooling up to 42°C below ambient temperature;
- Working temperature can be regulated to specified temperature in 5 minutes;
- Smart structure to assure the heat radiation efficiency and avoid the moisture problem;
- IR-CUT/AR coated windows;
- Up to 1 hour long time exposure;
- USB3.0 5Gbit/second interface ensuring high speed data transmission;
- Ultra-Fine™ color engine with perfect color reproduction capability;
- With advanced video & image processing application ImageView;
- Support both video and trigger modes;
- Providing Windows/Linux/Mac OS multiple platforms SDK;
- Native C/C++, C#/VB.NET, DirectShow, Twain control API.



**SPECIFICATIONS**

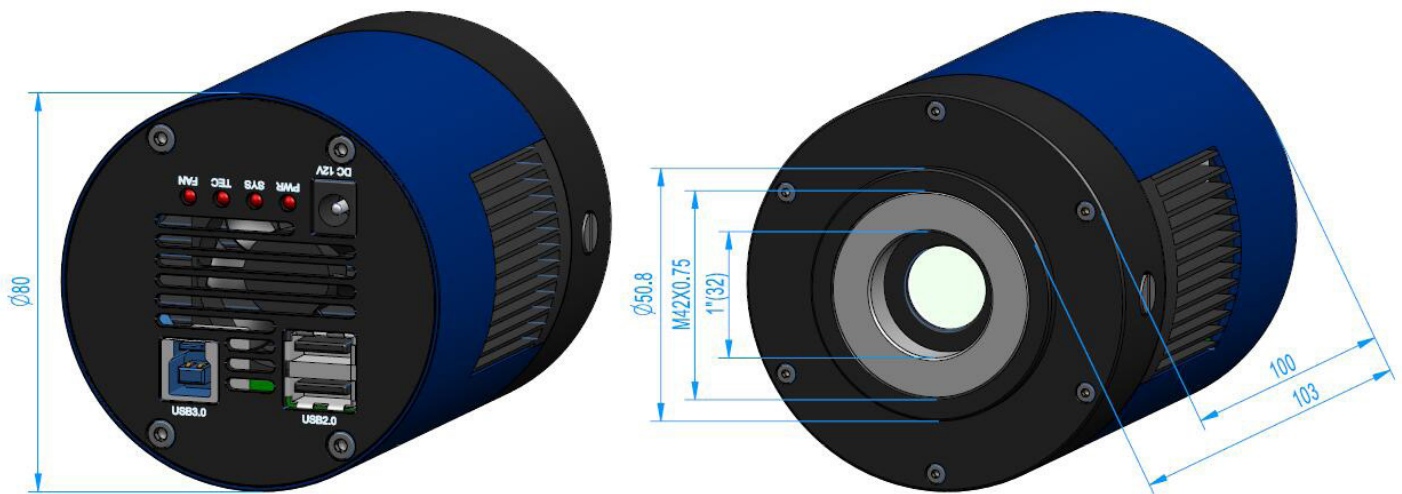
Model	LC-29
Sensor & Size(mm)	7.0M/IMX428(C, G)
	1.1 “(14.4x9.9)
Pixel(μm)	4.5 x4.5
G Sensitivity	2058mv with 1/30s
Dark Signal	0.15mv with 1/30s
FPS/Resolution	12@3200x2200
	33@1600x1100
Binning	1x1
	1x1
Exposure	0.1ms~3600s

Other Specification for LC-29	
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, Direct-Show, Twain and Labview
Recording System	Still Picture and Movie
Cooling System*	Two-stage TE-cooling System -45 °C below Camera Body Temperature
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
	External Power Adapter for Cooling System, DC12V, 3A
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

### DIMENSION

The **LC-29 Cooled C-mount USB3.0 CMOS Camera** body, made from tough, alloy with CNC technique, ensures a heavy duty, workhorse solution. The camera is designed with a high quality IR-CUT or AR to block the IR light or protect the camera sensor. The fan's vibration is minimized to the low level to eliminate the vibration caused imaging blur. This design ensures a rugged, robust solution with an increased lifespan when compared to the other industrial camera solutions.

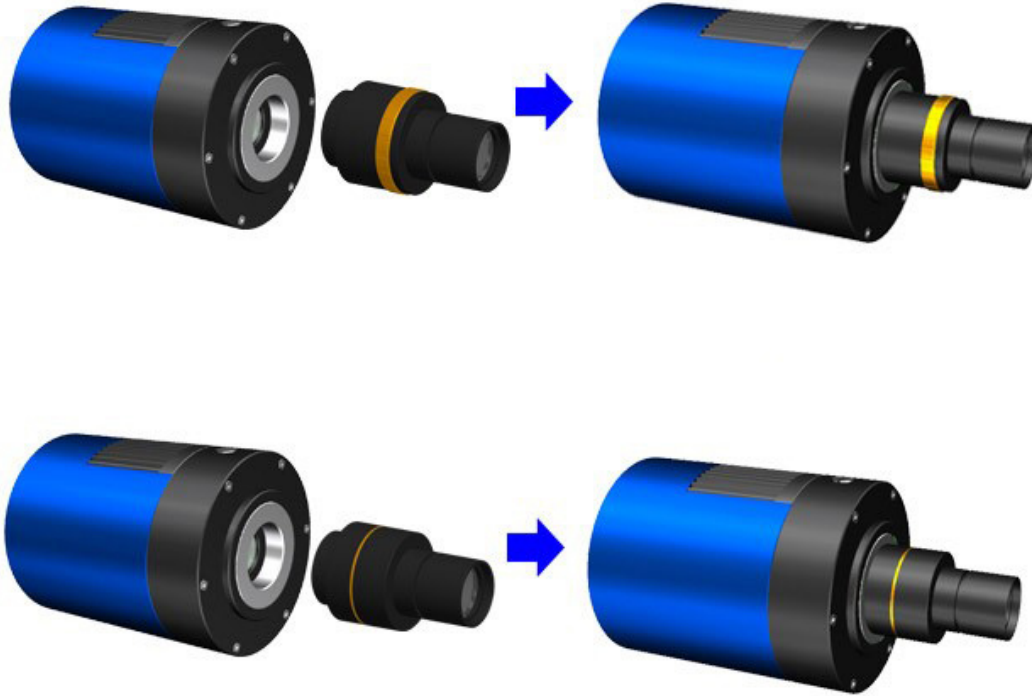


**PACKAGING INFORMATION**

Standard Package			
A	Carton L:50cm W:30cm H:30cm (20pcs, 12~17Kg/ carton), not shown in the photo (TBD)		
B	3-A safety equipment case: L:28cm W:23cm H:15cm (1pcs, 2.8Kg/ box); Carton size: L:28.2cm W:25.2cm H:16.7cm (TBD)		
C	LC-29 camera(C-mount)		
D	Drying tube and desiccant		
E	Power adapter: input: AC 100~240V 50Hz/60Hz, output: DC12 V 3A		
F	High-Speed USB3.0 A male to B male gold-plated connectors cable /1.5m		
G	CD (Driver & utilities software, Ø12cm)		
Optional Accessory			
H	Adjustable lens adapter	C-mount to Dia.23.2mm eyepiece tube (Please choose 1 of them for your microscope)	BCN2A-0.37×
			BCN2A-0.5×
			BCN2A-0.75×
			BCN2A-1×
		C-Mount to Dia.31.75mm eyepiece tube (Please choose 1 of them for your telescope)	BCN3A-0.37×
			BCN3A-0.5×
			BCN3A-0.75×
			BCN3A-1×
I	Fixed lens Adapter	C-mount to Dia.23.2mm eyepiece tube (Please choose 1 of them for your microscope)	BCN2F-0.37×
			BCN2F-0.5×
			BCN2F-0.75×
			BCN2F-1×
		C-mount to Dia.31.75mm eyepiece tube (Please choose 1 of them for your telescope)	BCN3F-0.37×
			BCN3F-0.5×
			BCN3F-0.75×
			BCN3F-1×
Note: For H and I optional items, please specify your camera type (C-mount, microscope camera), our engineer will help you to determine the right microscope or telescope camera adapter for your application.			
J	(Dia.23.2mm to 30.0mm Ring)/Adapter rings for 30mm eyepiece tube		
K	(Dia.23.2mm to 30.5mm Ring)/ Adapter rings for 30.5mm eyepiece tube		

L	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.)

### Extension of LC-29 with Microscope Adapter





**SAMPLE IMAGES**