

## **LC-30**

# 20M/IMX183 Cooled C-mount USB3.0 CMOS Camera Low Light and Fluorescent Microscope





#### LC-30 20M/IMX183 Cooled C-mount USB3.0 CMOS Camera

LC-30 20M/IMX183 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-30 20M/IMX183 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-30 20M/IMX183 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-30 20M/IMX183 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-FineTM 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.







Model	LC-30	
Sensor & Size(mm)	20M/IMX183(C)	
	1 "(13.056x8.755)	
Pixel(μm)	2.4 x2.4	
G Sensitivity	462mv with 1/30s	
Dark Signal	0.21mv with 1/30s	
FPS/Resolution	5@5440x3648	
	10@4096x2160	
	15@2736x1824	
	30@1824x1216	
Binning	1x1,	
	1x1,	
	2x2,	
	3x3	
Exposure	0.1ms~3600s	
Other Specification for LC-30		
Spectral Range	380-650nm (with IR-cut Filter)	
White Balance	ROI White Balance/ Manual Temp Tint Adjustment/NA for Monochro- matic Sensor	
Color Technique	Ultra-FineTM 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

### SPECIFICATIONS DIMENSION

The LC-30 20M/IMX183 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)			
В	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)			
С	LC-30 camera(C-mount)			
D	Drying tube and desiccant			
Е	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				
Н	Adjustable lens	C-mount to Dia.23.2mm eyepiece tube	BCN2A-0.37×	
	adapter	(Please choose 1 of them for your microscope)	BCN2A-0.5×	
	occpe)	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	BCN2F-0.37×	
	(Please choose 1 of them for your microscope)	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-30 with Microscope Adapter





