

## **FL CAM 9MP Series C-mount USB3.0 CMOS Camera with Hardware ISP and Video Pipeline**

### **FL CAM 9MP Basic Characteristic**

**FL CAM 9MP** adopt SONY Exmor CMOS sensor as the image-picking device and USB3.0 is used as the transfer interface.

**FL CAM 9MP** hardware resolutions 9 MP and come with the integrated CNC aluminum alloy compact housing.

**FL CAM 9MP** integrated with 12 bit Ultra-fine™ Hardware Image Signal Processor Video Pipeline (Ultra-fine™ HISP VP) for Demosaic, Automatic Exposition, Gain Adjustment, One Push White Balance, Chrominance Adjustment, Saturation Adjustment, Gamma Correction, Luminance Adjustment, Contrast Adjustment, Bayer and finally form RAW data for 8/12 bit output. This will move the heavier burden of the processing from the PC to the Ultra-fine™ HISP VP and greatly accelerating the processing speed.

**FL CAM 9MP** 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 FL CAM 9MP** can be widely used in bright field light environment and microscope image capture and analysis with higher frame rate.

The basic characteristic of **FL CAM 9MP** cameras are as follows:

- ★ SONY Exmor, Exmor R (Back-illuminated), Exmor RS CMOS sensor with USB3.0 interface;
- ★ Real-time 8/12bit depth switch (depending on sensor);
- ★ Ultra-fine™ HISP VP and USB3.0 5 Gbps interface ensuring high frame rates;
- ★ Super high sensitivity up to 2188mV (IMX264);
- ★ Ultra-low noise and low power dissipation by using column-parallel A/D conversion;
- ★ With hardware resolution 9MP;
- ★ Rolling shutter or global shutter;
- ★ Standard C-Mount camera;
- ★ CNC aluminum alloy housing;
- ★ With advanced video & image processing application ToupView;
- ★ Providing Windows/Linux/Mac OS multiple platforms SDK;
- ★ Native C/C++, C#/VB.Net, DirectShow, Twain, LabView



## FL CAM 9MP Datasheet

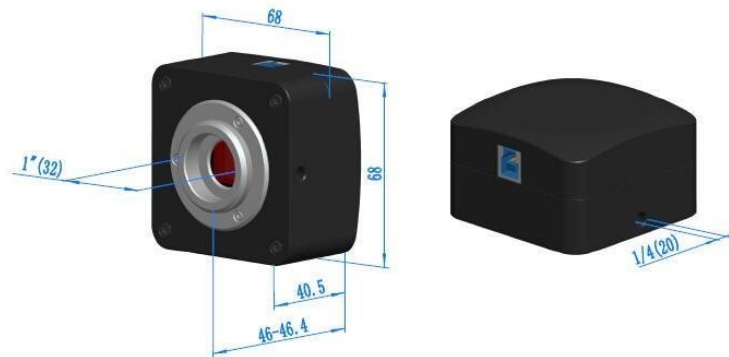
Order Code	Sensor & Size(mm)	Pixel(μm)	G Sensitivity Dark Signal	FPS/Resolution	Binning	Exposure
911409	9.0M/IMX533(C) 1" (11.31x11.28)	3.76x3.76	535mv with 1/30s 0.04mv with 1/30s	40@3008x3000 123@1488x1500 186@992x998	1x1 2x2 3x3	0.1ms~15s

C: Color - M: Monochrome; GS: Global Shutter15901901534

Other Specification for FL CAM 9MP 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™ HISPVP /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 USB3. 0 Port. Compatible with USB2.0
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 of FL CAM 9MP Camera

The FL CAM 9MP body, made from tough, CNC aluminum alloy, ensures a heavy duty, workhorse solution.



The camera is designed with a high quality IR-CUT to protect the camera sensor. No moving parts included. This design ensures a rugged, robust solution with an increased lifespan when compared to other industrial camera solutions.

## Packing Information for FL CAM 9MP Camera



**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	E3ISPM 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)

**LABWAY, SL**

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