



CAMERAS CAMSCOP-CMOS USB3.0



CAMSCOP Series C-mount USB3.0 CMOS Camera

- Sony Exmor CMOS sensor
- 4K HDMI/GE/WLAN multiple video outputs
- 4K/1080P auto switching according to the display resolution
- SD card/USB flash disk for the captured image and video storage
- Embedded software for the control of the camera
- With strong ISP and other related processing functions
- Software for PC
- iOS/Android applications for smart phones or tablets
- Windows/Linux/macOS/Android multiple platforms SDK;

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CAMSCOP cameras adopt SONY Exmor CMOS sensor as the image-picking device and USB3.0 is used as the transfer interface. E3ISPM hardware resolutions range from 1.5M to 45M and come with the integrated CNC aluminum alloy compact housing.

CMOS Camera integrated with 12 bit Ultra-fine Hardware Image Signal Processor Video Pipeline(Ultra-fine™ HISPVP) for Demosaic, Adjustments, 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™ HISPVP and greatly accelerating the processing speed.

They comes with advanced video & image processing application; Providing Windows/Linux/macOS/Android multiple platform SDK(Native C/C++, C#/VB.NET, Python, Java, DirectShow, Twain, etc);

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



Sensor & Size (mm)	Pixel (µm)	G Sensitivity Dark Signal	FPS/Resolution	Binning	Exposure
21M/IMX269(C) 4/3"(17.40x13.00)	3.3x3.3	399mv with 1/30s 0.1mv with 1/30s	17@5280x3954 17@3952x3952 56 @2640x1976 67@1760x1316 192@584x438	1x1 1x1 2x2 3x3 9x9	0.1ms-15s
20M/IMX183(C) 1"(13.06x8.76)	2.4x2.4	462mv with 1/30s 0.21mv with 1/30s	15@5440x3648 50 @2736x1824 60@1824x1216	1x1 2x2 3x3	0.1ms-15s
18M/Sony Special(C) 1/2.2"(5.86x4.46)	1.2x1.2	130mv with 1/30s 0.10mv with 1/30s	17@4880x3720 40@2448x1836 50@1728x1296	1x1 2x2 3x3	0.1ms-15s
15.6M/Sony Special(C) 1.1"(13.0x13.0)	3.3x3.3	399mv with 1/30s 0.10mv with 1/30s	17@3592x3592 56@1796x1796 67@1316x1316	1x1 2x2 3x3	0.1ms-15s
12M/IMX304(C,GS) 1"(14.13x10.35)	3.45x3.45	1146mv with 1/30s 0.1mv with 1/30s	23.4@4096x3000 46.3@2048x1500	1x1	0.244ms-15s
12M/IMX226(C) 1/1.7"(7.40x5.55)	1.85x1.85	280mv with 1/30s 0.10mv with 1/30s	25@4000x3000 50@2048x1080	1x1 2x2	0.1ms-15s
9M/IMX305(C,GS) 1"(14.13x7.45)	3.45x3.45	1146mv with 1/30s 0.15mv with 1/30s	34@4096x2160 60@2048x1080	1x1 2x2	0.1ms-15s
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
8.3M/IMX274(C) 1/2.5"(6.22x3.50)	1.62x1.62	236mv with 1/30s 0.15mv with 1/30s	32@ 3840x2160 65@ 1920x1080	1x1 2x2,	0.244ms-15s
8.3M/IMX334(C) 1/1.8"(7.68x4.32)	2.0x2.0	505mv with 1/30s 0.15mv with 1/30s	35@ 3840x2160 65@ 1920x1080	1x1 2x2	0.02ms-15s
8.3M/IMX485(C) 1/1.2"(11.14x6.26)	2.9x2.9	2188mv with 1/30s 0.15mv with 1/30s	45@3840x2160 70@1920x1080	1x1 2x2	0.2ms-15s
6.3M/IMX178(C) 1/1.8"(7.37x4.92)	2.4x2.4	425mv with 1/30s 0.15mv with 1/30s	30 @3072x2048 38 @1536x1024	1x1 2x2	0.1ms-15s
6.3M/IMX178(C) 1/1.8"(7.37x4.92)	2.4x2.4	425mv with 1/30s 0.15mv with 1/30s	59 @3072x2048 59 @1536x1024	1x1 2x2	0.02ms-15s
5.0M/IMX264(C, GS) 2/3" (8.45x7.07)	3.45x3.45	1146mv with 1/30s 0.15mv with 1/30s	35 @2448x2048 50 @1224x1024	1x1 1x1	0.1ms-15s



3.1M/IMX265(C,GS) 1/1.8"(7.07x5.30)	3.45x3.45	1146mv with 1/30s 0.15mv with 1/30s	53 @2048x1536 85 @1024x768	1x1	0.1ms-15s
3.1M/IMX123(C) 1/2.8"(5.12x3.84)	2.5x2.5	600mv with 1/30s 0.15mv with 1/30s	50 @2048x1536 50@1920x1080	1x1 1x1	0.1ms-15s
2.0M/IMX385(C) 1/2"(7.20x4.05)	3.75x3.75	2350mv with 1/30s 0.15mv with 1/30s	125 @1920x1080	1x1	0.1ms-15s
1.5M/IMX273(C,GS) 1/2.9"(4.968x3.726)	3.45x3.45	1145mv with 1/30s 0.15mv with 1/30s	164 @1440x1080 320 @720x540	1x1 2x2	0.1ms-15s
45M/SONY Special(C) 1.4" (18.93x13.00)	2.315x2.315	419mv with 1/30s 0.03mv with 1/30s	8.1@8176x5616 30.0@4088x2808 8.1@7408x5556 33.0@4088x2808 10.4@8176x4320 34.7@4096x2160 62.5@2048x1080 86.5@1360x720	1x1(3:2) 2x2(3:2) 1x1(4:3) 2x2(4:3) 1x1(17:9) 2x2(17:9) 3x3(17:9) 4x4(17:9)	0.1ms-15s
32M/SONY Special(C) 1.15" (12.96x12.96)	2.315x2.315	419mv with 1/30s 0.03mv with 1/30s	8.1@5600x5600 30.0@2800x2800 30.0@1400x1400	1x1 2x2 4x4	0.1ms-15s
8.0M/IMX294(C) 1.15 "(13.00x13.00)	4.63x4.63	419mv with 1/30s 0.12mv with 1/30s	30@2808x2808(14bit) 139@1392x1392 139@696x696	1x1 2x2 4x4	0.1ms-15s

Other Hardware configuration

Spectral Range	380-650nm (with IR-filter), for Monochromatic Camera, AR Is Used
White Balance	ROI White Balance/ Manual Temp-Tint Adjustment
Color Rendering Technique	Ultra Fine Color Engine
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	-10 °C~ 50 °C
Storage Temperature	-20 °C~ 60 °C
Operating Humidity	30~80%RH
Storage Humidity	10~60%RH
Power Supply	DC 5V over PC USB Port

Software Environment

Operating System	Support Microsoft Windows XP / Vista / 7 / 8 / 10(32 & 64 bit) OS X (Mac OS X), Linux
PC Requirements	CPU: Equal to Intel Core2 2.8GHz or Higher
	Memory: 2GB or More
	USB port: USB2.0 High-speed Port
	Display: 17" or Larger
	CD-ROM

Dimension of CMOS USB3.0 Series Camera

Installation drawings(Click to enlarge). The camera's body, made from CNC aluminium 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.



