MICAPS
E3CMOS SERIES

C-mount USB 3.0 CMOS Cameras
Aptina/Panasonic CMOS Sensor

The E3CMOS is a high-performance USB 3.0 camera featuring either an OnSemi or Panasonic CMOS sensor for fast, detailed image capture. It supports 16 MP to 20MP resolution and comes in a compact CNC aluminum alloy body. With its advanced 12-bit Super-fine™ Hardware Image Signal Processor (HISP VP), it handles tasks like demosaicing, auto exposure, gain and white balance adjustments, color correction, gamma, contrast, and more—offloading processing from the PC and significantly improving speed. It comes with the powerful MicroView software for video and image processing and supports Windows, Linux, macOS, and Android. SDKs are available in C/C++, C#/VB.NET, Python, Java, DirectShow, Twain, and more. Ideal for well-lit environments and microscope image capture, the E3CMOS camera ensures smooth performance and higher frame rates.

Features

- Standard C-Mount Camera with Aptina or Panasonic CMOS sensor
- CNC aluminum alloy housing
- With hardware resolution 16M
- Super-fineTM HISP VP and USB3.0 5 Gbps interface ensuring high frame rates
- USB3.0 5Gbps interface ensuring high speed data transmission
- Super-Fine color engine with perfect color reproduction capability
- With advanced video & image processing application MicroView

Applications

- Digital laboratory, medical research
- Industrial visual (PCB examination, IC quality control)
- Medical treatment (pathological observation)
- Food (microbial colony observation and counting)
- Aerospace, military (high sophisticated weapons)
- Scientific research, education (teaching, demonstration and academic exchanges)

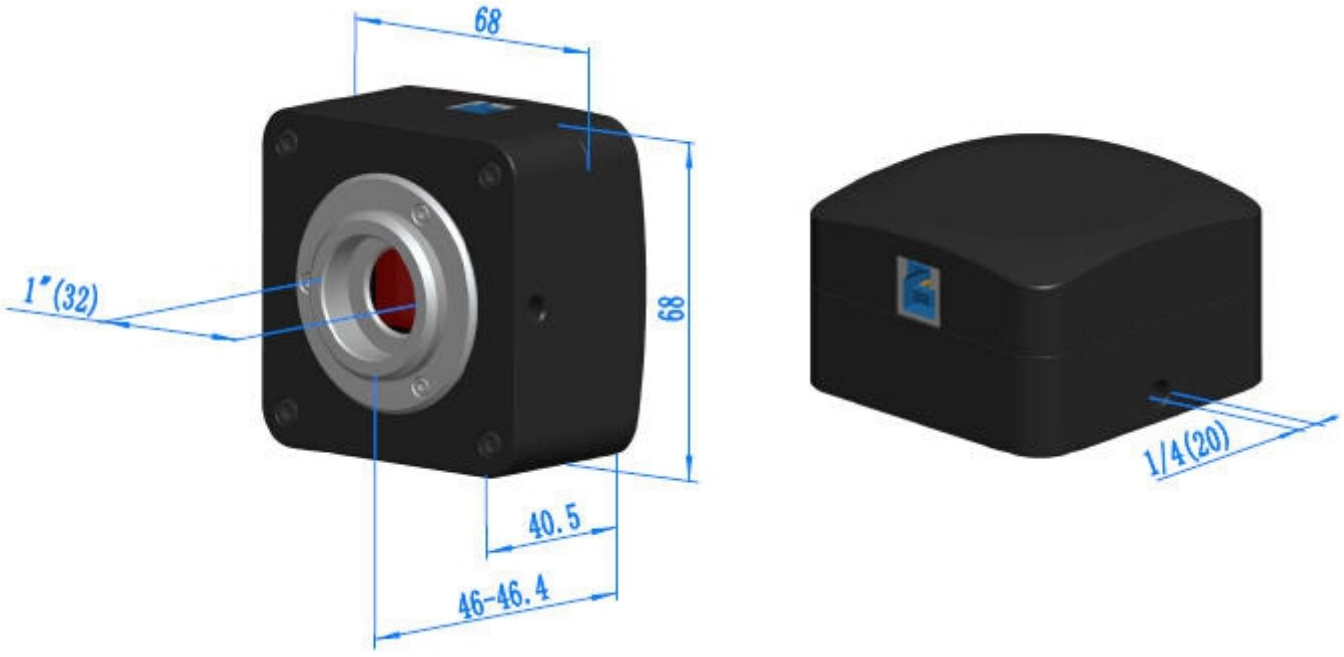
Model No.	Sensor & Size(mm)	Pixel(μm)	G Sensitivity Dark Signal SNRMAX	FPS/Resolution	Binning	Exposure
E3CMOS16000CA	16M/MN34120(C) 1/2.33”(6.18x4.66)	1.335x1.335	R:2453LSB Gr: 2444LSB Gb:1054LSB B:996LSB	6@4632x3488 15@2320x1740 26.0@1536x1160	1x1 2x2 3x3	0.2ms~2s
E3CMOS16000CB	16M/MN34120[C] 1/2.33”(6.18x4.67)	3.8X3.8	R:1315LSB Gr: 2413LSB Gb:2413LSB B:1042LSB (Gain = 0db)	22@4640x3506 30@3360x2526 43@2304x1750 49@1536x1168	1x1 2x2 3x3	0.2ms~15s
ECO3CMOS18000CA	18M/AR1820[C] 1/2.3”(6.14x4.61)	1.25x1.25	0.62V/lux-sec 65.8dB 36.3	13.1@4912x3684 34.3@2456x1842 54.4@1228x922	1x1 2x2 4x4	0.1ms~2s
E3CMOS20000CA	20M/AR2020[C] 1/1.8”(7.17x5.38)	1.4x1.4	8.4 ke-/lux.sec	20@5120x3840 45@2560x1920	1x1 2x2	0.2ms~15s

C: Color

Other Hardware Configuration	
Spectral Range	380-650nm (with IR-cut Filter)
White Balance	ROI White Balance/ Manual Tint Adjustment/NA for Monochromatic Sensor
Color Technique	Super Fine HISP VP /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)
ADC	8 Bit / 12 Bit
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, External Power Adapter for Cooling System, DC12V,3A

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: USB3.0 High-speed Port
	Display: 17" or Larger
	CD-ROM



LABLINK INSTRUMENTS

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- Plot no. 3-6-164/2, 2nd street, Hyderguda Himayatnagar, Hyderabad, (Telangana)India - 500029

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