BUC2E Series C-mount USB2.0 CMOS Camera

Introduction

BUC2E series cameras adopt SONY Exmor CMOS sensor as the image-picking device and USB2.0 is used as the data transfer interface.

BUC2E hardware resolutions range from 1.2M to 8.3M and come with the integrated CNC aluminum alloy compact housing.

BUC2E comes with advanced video & image processing application ImageView; Providing Windows/Linux/ OSX multiple platforms SDK; Native C/C++, C#/VB.NET, DirectShow, Twain Control API.

The BUC2E can be widely used in bright field light environment and microscope image capture and analysis with higher frame rate.

Features

The basic characteristic of BUC2E cameras are as follows:

1. SONY Exmor, Exmor R(Back-illuminated), Exmor RS CMOS sensor with USB2.0 interface;

2. Real-time 8/12/14/16bit depth switch(depending on sensor);

3. Super high sensitivity up to 2040mV(IMX224);

4. Ultra low noise and low power dissipation by using column-parallel A/D conversion;

5. With hardware resolution among 1.2M to 8.3M;

6. Rolling Shutter;

7. Standard C-Mount camera;

8. CNC aluminum alloy housing;

9. USB2.0 interface ensuring high speed data transmission;

10. With advanced video & image processing application ImageView;

11. Providing Windows/Linux/Mac OS multiple platforms SDK;

12. Native C/C++, C#/VB.Net, DirectShow, Twain.

Specification

Order Code	Sensor & Size(mm)	Pixel(μm)	G Sensitivity Dark Signal	FPS/Resolution	Binning	Exposure
BUC2E-830C	8.3M/IMX274(C) 1/2.5"(6.22x3.50)	1.62x1.62	236mv with 1/30s 0.1mv with 1/30s	4@3840x2160 16@1920x1080	1x1 2x2	0.244ms~15s
BUC2E-660C	6.6M/IMX326(C) 1/2.9"(4.98x3.50)	1.62x1.62	236mv with 1/30s 0.1mv with 1/30s	5@3072x2160 6@2592x1944 6@3072x1728 7@2160x2160	1x1 1x1 1x1 1x1	0.244ms~15s
BUC2E-530C	5.3M/IMX178(C) 1/1.9" (7.37x4.15)	2.4x2.4	425mv with 1/30s 0.15mv with 1/30s	5.5@3072 x1728 35@1280x720	1x1, 2x2	0.105ms~15s
BUC2E-500C	5.0M/IMX335(C) 1/2.8" (5.18x3.89)	2.0x2.0	505mv with 1/30s 0.13mv with 1/30s	6.4@2592 x1944 26.7@1296x972	1x1, 2x2	0.1ms~15s
BUC2E-310C	3.1M/IMX123(C) 1/2.8" (5.12x3.84)	2.5x2.5	600mv with 1/30s 0.15mv with 1/30s	10.5@2048x1536 15@1920x1080	1x1	0.105ms~15s
BUC2E-200C	2.0M/IMX290(C) 1/2.8"(5.56x3.13)	2.9 x2.9	1300mv with 1/30s 0.15mv with 1/30s	17@1920x1080	1x1	0.105ms~15s
BUC2E-120C	1.2M/IMX224(C) 1/3"(4.80x3.60)	3.75 x3.75	2040mv with 1/30s 0.15mv with 1/30s	27@1280x960 54@640x480	1x1, 2x2	0.105ms~15s

C: Color; M: Monochrome;

Other Specification for BUC2E 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™ Color Engine/NA for Monochromatic Sensor
Capture/Control API	Native C/C++, C# /VB.Net, DirectShow, Twain
Recording System	Still Picture and Movie
Cooling System*	Natural
Operating Environment	
Operating Temperature (in Centigrade)	-10~ 50
Storage Temperature (in Centigrade)	-20~ 60
Operating Humidity	30~80%RH

Storage Humidity	10~60%RH
Power Supply	DC 5V over PC USB Port
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: USB2.0 Port
	Display: 17" or Larger
	CD-ROM

Dimension of BUC2E

The BUC2E 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.

Dimension of BUC2E

Packing Information for BUC2E

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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 (0.5~0.55Kg/ box)		
C	BUC2E series USB2.0 C-mount CMOS camera		
D	High-speed USB2.0 A male to B male gold-plated connectors cable /2.0m		
E	CD (Driver & utilities software, Ø12cm)		
Optional Accessory			
F	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×
		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×
G	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×
		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×
	Note: For F and G optional items, please specify your camera type(C-mount, microscope camera or telescope camera), our engineer will help you to determine the right microscope or telescope camera adapter for your application;		

H	108015(Dia.23.2mm to 30.0mm Ring)/Adapter rings for 30mm eyepiece tube
I	108016(Dia.23.2mm to 30.5mm Ring)/ Adapter rings for 30.5mm eyepiece tube
J	108017(Dia.23.2mm to 31.75mm Ring)/ Adapter rings for 31.75mm eyepiece tube
K	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 BUC2E with Microscope or Telescope Adapter

Extension	Picture
C-mount Camera	Machine vision; Medical imaging; Semiconductor equipment; Test instruments; Document scanners; 2D barcode readers; Web camera and security video; Microscope imaging;
Microscope Camera	23.2mm Adjustable Adapter 23.2mm Fixed Adapter
Telescope Camera	31.75mm Adjustable Adapte 31.75mm Fixed Adapter