BUC4D Series C-mount USB2.0 CCD Camera

Introduction

BUC4D series CCD digital cameras adopt Sony ExView HAD(Hole-Accumulation-Diode) CCD sensor as the image-capture device. Sony ExView HAD CCD is a CCD that drastically improves light efficiency by including near infrared light region as a basic structure of HAD sensor. USB2.0 port is used as the data transfer interface.

BUC4D series cameras come with advanced video & image processing software ImageView; Providing Windows/Linux/OSX multiple platform SDK; Native C/C++, C#/VB.NET, DirectShow, Twain Control API;

BUC4D series cameras can be widely used in low light environment and microscope fluorescence image capture and analysis.

Features

The BUC4D's basic characteristic is as follows:

1. Standard C-Mount camera with SONY ExView 0.3M~1.4M sensors;

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

3. Ultra-Fine color engine with perfect color reproduction capability;

4. With advanced video & image processing application ImageView;

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

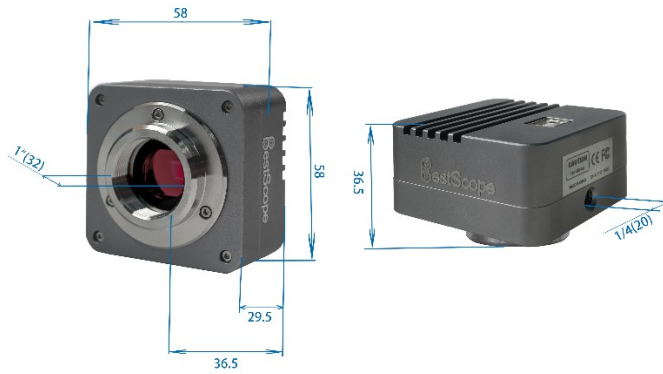6. Native C/C++, C#/VB.NET, DirectShow, Twain Control API.

BUC4D Datasheet

Order Code	Sensor & Size(mm)	Pixel(μm)	G Sensitivity Dark Signal	FPS/Resolution	Binning	Exposure
BUC4D-140C	1.4M/ICX285AQ(C) 2/3" (10.2x8.3)	6.45x6.45	1240mv with 1/30s 10mv with 1/30s	15@1360x1024	1x1	0.12ms~240s
BUC4D-140M	1.4M/ICX285AL(M) 2/3" (10.2x8.3)	6.45x6.45	1300mv with 1/30s 11mv with 1/30s	15@1360x1024	1x1	0.12ms~240s
BUC4D-44M	0.44M/ICX829AL(M) 1/2"(7.40X5.95)	8.6X8.3	2800mv with 1/30s 2mv with 1/30s	46@748X578	1X1	0.20ms~3600s
BUC4D-30M	0.3M ICX618AL(M) 1/4" (4.46x3.80)	5.6x5.6	1200mv with 1/30s 4mv with 1/30s	72@640x480	1x1	0.06ms~40s

C: Color; M: Monochrome;

Other Specification for BUC4D Cameras	
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 and Labview
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 High-speed Port
	Display:17" or Larger
	CD-ROM

Dimension of BUC4D

The BUC4D body, made from tough, zinc 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. These measures ensure a rugged, robust solution with an increased lifespan when compared to other industrial camera solutions.

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Packing Information of BUC4D

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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 (0.67~0.80Kg/ box)
C	BUC4D series USB2.0 C-Mount 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)
		C-Mount to Dia.31.75mm eyepiece tube (Please choose 1 of them for your telescope)
G	Fixed lens adapter	C-mount to Dia.23.2mm eyepiece tube (Please choose 1 of them for your microscope)
		C-mount to Dia.31.75mm eyepiece tube (Please choose 1 of them for your telescope)
	Note: For F and G optional items, please specify your camera type(C-mount, microscope camera or telescope camera), 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)/Adaptor rings for 30mm eyepiece tube	
I	108016(Dia.23.2mm to 30.5mm Ring)/ Adaptor rings for 30.5mm eyepiece tube	
J	108017(Dia.23.2mm to 31.75mm Ring)/ Adaptor 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 BUC4D 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