

## BUC4C Series C-mount USB2.0 CCD Camera



### Introduction

BUC4C series CCD cameras are ultra-high performance Super HAD CCD camera. The cameras adopt Sony Super HAD CCD sensor as the image capture device; The Super HAD CCD is a version of Sony's high performance CCD HAD (Hole-Accumulation Diode) sensor with sharply improved sensitivity by the incorporation of a new semiconductor technology developed by Sony Corporation. USB2.0 is used as the data transfer interface.

BUC4C series CCD cameras come with advanced video & image processing application ImageView; Providing Windows/Linux/OSX multiple platform SDK; Native C/C++, C#/VB.NET, DirectShow, Twain Control API;

The BUC4C series CCD cameras can be widely used in bright field, dark field, fluorescent light environment for microscope image capture and analysis.

### Features

The BUC4C's basic characteristic is as follows:

1. Standard C-Mount camera with SONY Super HAD CCD 0.8~5.2M sensor;
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.

## BUC4C Datasheet

Order Code	Sensor & Size(mm)	Pixel Size(μm)	G Sensitivity Dark Signal	FPS/Resolution	Binning	Exposure
<b>BUC4C-520C</b>	5.2M/ICX655AQ(C) 2/3" (8.44x7.07)	3.45x3.45	420mv with 1/30s 4mv with 1/30s	4.3@2448x2050 10.5@960x720	1x1	0.22ms~60s
<b>BUC4C-510C</b>	5.1M/ICX452AQ(C) 1/1.8" (7.19x5.39)	2.775x2.775	260mv with 1/30s 16mv with 1/30s	4@2592x1944 35@560x420	1x1, 2x2	0.212ms~77ms
<b>BUC4C-500C</b>	5.0M/ICX282AQ(C) 2/3" (8.70x6.53)	3.40x3.40	280mv with 1/30s 16mv with 1/30s	4.5@2560x1920 9@1280x960	1x1, 2x2	0.203ms~60s
<b>BUC4C-200C</b>	2.0M/ICX274AQ(C) 1/1.8" (7.04x5.28)	4.40x4.40	420mv with 1/30s 8mv with 1/30s	10@1600x1200	1x1	0.135ms~60s
<b>BUC4C-140BC</b>	1.4M/ICX205AK(C) 1/2" (6.32x4.76)	4.65x4.65	400mv with 1/30s 16mv with 1/30s	15@1360x1024	1x1	0.127ms~60s
<b>BUC4C-140M</b>	1.4M/ICX205AL(M) 1/2" (6.32x4.76)	4.65x4.65	450mv with 1/30s 16mv with 1/30s	15@1360x1024	1x1	0.127ms~60s

C:Color; M:Monochrome;

Other Specification for BUC4C	
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 BUC4C

The BUC4C 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.



Dimension of BUC4C


## Packing Information of BUC4C



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 (0.67~0.8Kg/ box)
C	BUC4C series camera

D	High-speed USB2.0 A male to B male gold-plated connectors cable /2.0m	
E	CD (Driver & utilities software, Ø12cm)	
<b>Optional Accessory</b>		
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)
<b>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;</b>		
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 BUC4C with Microscope or Telescope Adapter

Extension	Picture	
C-mount Camera	 <p>Machine vision; Medical imaging; Semiconductor equipment; Test instruments; Document scanners; 2D barcode readers; Web camera and security video; Microscope imaging;</p>	
Microscope Camera		
Telescope Camera		



23.2mm Adjustable Adapter



23.2mm Fixed Adapter