

BUC6A Series C-mount USB3.0 CCD Camera



Introduction

BUC6A series USB3.0 CCD digital camera adopt Sony ExView HAD 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 (Hole-Accumulation-Diode) sensor. USB3.0 is used as the data transfer interface.

BUC6A series cameras' hardware resolutions range from 2.8M to 6M and come with the integrated CNC aluminum alloy compact housing.

BUC6A series cameras come 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 BUC6A series cameras can be widely used in bright field, dark field, fluorescent light environment and microscope image capture and analysis with higher frame rate.

Features

The BUC6A series cameras' characteristic is as follows:

1. Standard C-Mount camera with SONY ExView HAD CCD II sensors from 2.8M ~ 6M;
2. IR-CUT Coated Windows;
3. Up to 1000s long time exposure;
4. USB3.0 5Gbit/second interface ensuring high speed data transmission;
5. Ultra-Fine™ color engine with perfect color reproduction capability;

6. With advanced video & image processing application ImageView;
7. Providing Windows/Linux/Mac OS multiple platforms SDK;
8. Native C/C++, C#/VB.NET, DirectShow, Twain Control API.

Specification

| Order Code | Sensor & Size(mm) | Pixel(μm) | G Sensitivity Dark Signal | FPS/Resolution | Binning | Exposure |
|--------------------|---------------------------------------|-----------|---|--|-------------|--------------|
| BUC6A-1200C | 12M/ICX834AQG(C) 1" (13.15x8.77) | 3.1x3.1 | 420mv with 1/30s 15.2mv with 1/30s | 3.6@4248x2836 3.6@2124x1418 | 1x1, 2x2 | 0.06ms~1000s |
| BUC6A-1200M | 12M/ICX834ALG(M) 1" (13.15x8.77) | 3.1x3.1 | 420mv with 1/30s 12mv with 1/30s (F8.0) | 3.6@4248x2836 3.6@2124x1418 | 1x1, 2x2 | 0.06ms~1000s |
| BUC6A-900C | 9.0M/ICX814AQG(C) 1" (12.47x9.98) | 3.69x3.69 | 580mv with 1/30s 12mv with 1/30s | 4.4@3388x2712 4.4@1694x1356 | 1x1, 2x2 | 0.06ms~1000s |
| BUC6A-900M | 9.0M/ICX814ALG(M) 1" (12.47x9.98) | 3.69x3.69 | 660mv with 1/30s 12mv with 1/30s (F8.0) | 4.4@3388x2712 4.4@1694x1356 | 1x1, 2x2 | 0.06ms~1000s |
| BUC6A-600C | 6.0M/ICX694AQG(C) 1" (12.48x9.99) | 4.54x4.54 | 880mv with 1/30s 8mv with 1/30s | 7.5@2748x2200 14@2748x1092 | 1x1 | 0.06ms~1000s |
| BUC6A-600M | 6.0M/ICX694ALG(M) 1" (12.48x9.99) | 4.54x4.54 | 1000mv with 1/30s 8mv with 1/30s | 7.5@2748x2200 14@2748x1092 | 1x1 | 0.06ms~1000s |
| BUC6A-280C | 2.8M/ICX674AQG(C) 2/3" (8.81x6.63) | 4.54x4.54 | 800mv with 1/30s 4mv with 1/30s | 15@1938x1460 17@1610x1212 18@1930x1092 | 1x1 | 0.05ms~1000s |
| BUC6A-280M | 2.8M/ICX674ALG(M) 2/3" (8.81x6.63) | 4.54x4.54 | 950mv with 1/30s 4mv with 1/30s | 15@1938x1460 17@1610x1212 18@1930x1092 | 1x1 | 0.05ms~1000s |
| BUC6A-140C | 1.4M/ICX825AQA(C) 2/3" (8.88x6.70) | 6.45x6.45 | 2000mv with 1/30s 4.8mv with 1/30s | 25@1376x1040 | 1x1 | 0.07ms~1000s |
| BUC6A-140M | 1.4M/ICX825ALA(M) 2/3" (8.88x6.70) | 6.45x6.45 | 2000mv with 1/30s 4.8mv with 1/30s | 25@1376x1040 | 1x1 | 0.07ms~1000s |

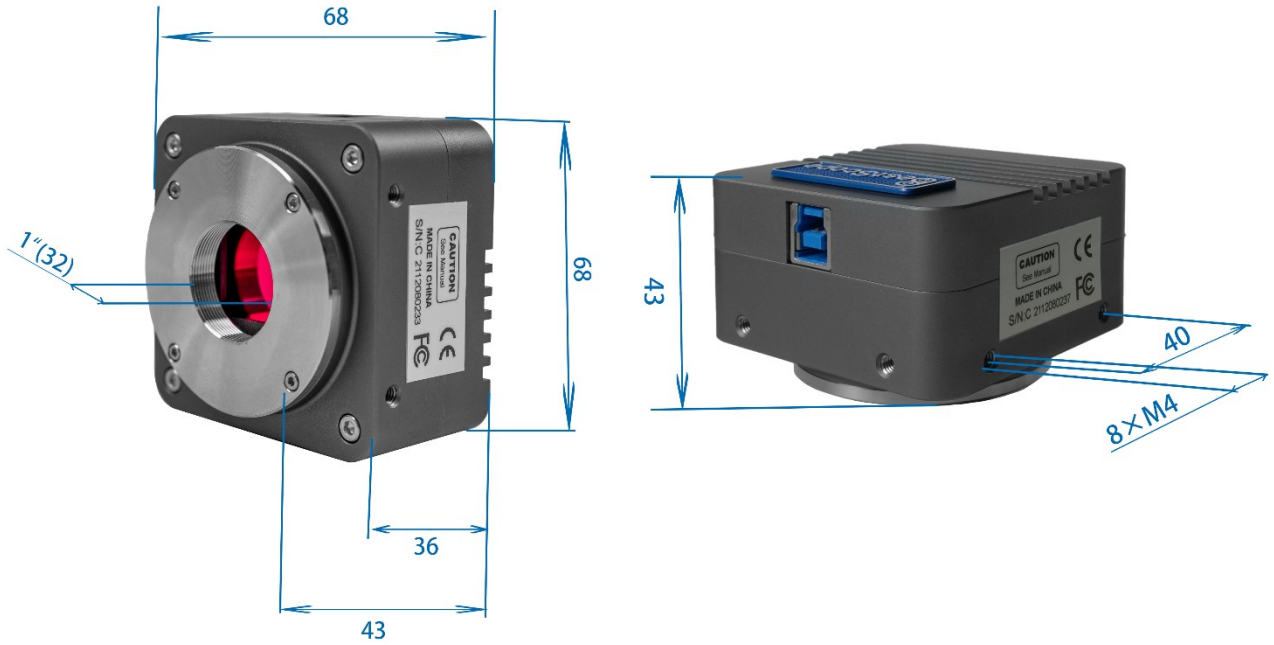
C: Color; M: Monochrome;

| Other Specification for BUC6A 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: USB3.0 High-speed Port |
| | Display: 17" or Larger |
| | CD-ROM |

Dimension of BUC6A

The BUC6A 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. These measures ensure a rugged, robust solution with an increased lifespan when compared to other industrial camera solutions.



Dimension of BUC6A


Packing Information for BUC6A



Packing Information of BUC6A

| 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 (0.7~0.75Kg/ box) | |
| C | BUC6A series USB3.0 C-mount CMOS camera | |
| D | High-speed USB3.0 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) |
| <p>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.</p> | | |
| 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 BUC6A 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> |

| | |
|------------------------------|---|
| <p>Microscope Camera</p> |  <p>23.2mm Adjustable Adapter</p>  <p>23.2mm Fixed Adapter</p> |
| <p>Telescope Camera</p> |  <p>31.75mm Adjustable Adapter</p>  <p>31.75mm Fixed Adapter</p> |