

## BUC1C Series Microscope Digital Cameras



### Introduction

BUC1C series cameras adopt ultra-high performance CMOS sensor as the image-capture device. USB2.0 is used as the data transfer interface.

BUC1C series cameras' hardware resolutions ranges from 0.35M to 14M and come with the zinc aluminum alloy compact housing. BUC1C 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 BUC1C can be widely used in bright field light environment and microscope image capture and analysis with moderate frame rate.

### Feature

The basic features of BUC1C cameras are as follows:

1. Standard C-Mount with Aptina CMOS sensor;
2. With hardware resolution among 0.35M to 14M;
3. Durable zinc aluminum alloy housing;
4. USB2.0 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 Responsivity Dynamic range SNRmax	FPS/Resolution	Binning	Exposure
<b>BUC1C-1400C</b>	14M/MT9F002(C) 1/2.3"(6.451x4.603)	1.4x1.4	0.724v/lux-sec 65.3dB 35.5dB	1.8@4096x3288 10@2048x1644 27@1024x822	1x1, 2x2, 4x4	0.4ms~2000ms
<b>BUC1C-1000C</b>	10M/MT9J003(C) 1/2.3"(6.44x4.616)	1.67x1.67	0.31v/lux-sec 65.2dB 34dB	1.9@3584x2748 8@1792x1374 27@896x684	1x1, 2x2, 4x4	0.4ms~2000ms
<b>BUC1C-900C</b>	9M/Special(C) 1/2.4"(5.825x4.369)	1.67x1.67	0.31v/lux-sec 65.2dB 34dB	1.9@3488x2616 8@1744x1308 27@872x654	1x1, 2x2, 4x4	0.4ms~2000ms
<b>BUC1C-800C</b>	8M/Special(C) 1/2.5"(5.451x4.088)	1.67x1.67	0.31v/lux-sec 65.2dB 34dB	1.9@3264x2448 8@1600x1200 27@800x600	1x1, 2x2, 4x4	0.4ms~2000ms
<b>BUC1C-500C</b>	5.1M/MT9P001(C) 1/2.5"(5.7x4.28)	2.2x2.2	0.53 V/lux-sec 66.5dB 40.5dB	5@2592x1944 18@1280x960 60@640x480	1x1, 2x2, 4x4	0.294ms~2000 ms
<b>BUC1C-300C</b>	3.1M/MT9T001(C) 1/2"(6.55x4.92)	3.2x3.2	1.0 V/lux-sec 61dB 43dB	8@2048x1536 22@1024x768 43@680x510	1x1, 2x2, 3x3	0.244ms~2000m s
<b>BUC1C-200C</b>	2.0M/Special(C) 1/2.6"(5.12x3.84)	3.2x3.2	1.0 V/lux-sec 61dB 43dB	16@1600x1200 50@800x600	1x1, 2x2	0.128ms~2000m s
<b>BUC1C-123C</b>	1.23M/SC1235(C) 1/3"(4.80x3.60)	3.75x3.75	4.5V/lux-sec 74dB 38dB	15@1280x960 15@1280x720	1x1, 1x1	0.14ms~2000ms
<b>BUC1C-130M</b>	1.3M/MT9M001(M) 1/2"(6.66x5.32)	5.2x5.2	2.1 V/lux-sec 68.2dB 45dB	20@1280x1024	1x1	0.14ms~500ms
<b>BUC1C-35C</b>	0.35M/MT9V011(C) 1/4"(3.58x2.69)	5.6x5.6	1.9V/lux-sec 60dB 45dB	30@640x480 80@320x240	1x1, 2x2	0.111ms~192ms

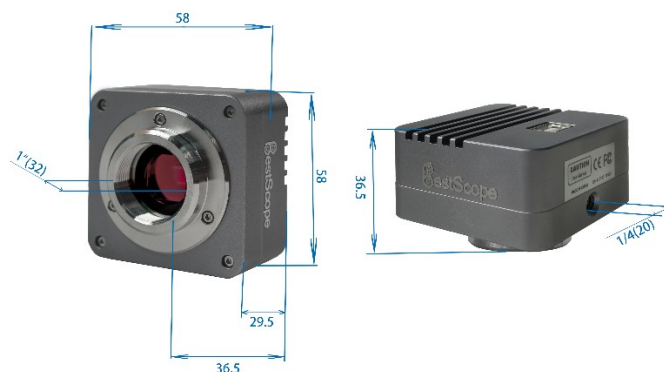
C: Color; M: Monochrome;

Other Specification for BUC1C Camera	
Spectral Range	380-650nm (with IR-cut Filter)

White Balance	ROI White Balance/ Manual Temp Tint Adjustment/NA for Monochromatic Sensor
Color Technique	Ультратонкий цветной движок/NA для монохроматического датчика
Capture/Control API	Native C/C++, C#/VB.NET, DirectShow, Twain and Labview
Recording System	Still Picture and Movie
Cooling System*	Natural
<b>Operating Environment</b>	
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
<b>Software Environment</b>	
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 BUC1C

The BUC1C 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 BUC1C

## Packing Information for BUC1C



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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	BUC1C 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)
		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)/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 BUC1C with Microscope or Telescope Adapter

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