

(3) BUC6IA-400C Real-color Cooled FSI sCMOS Camera



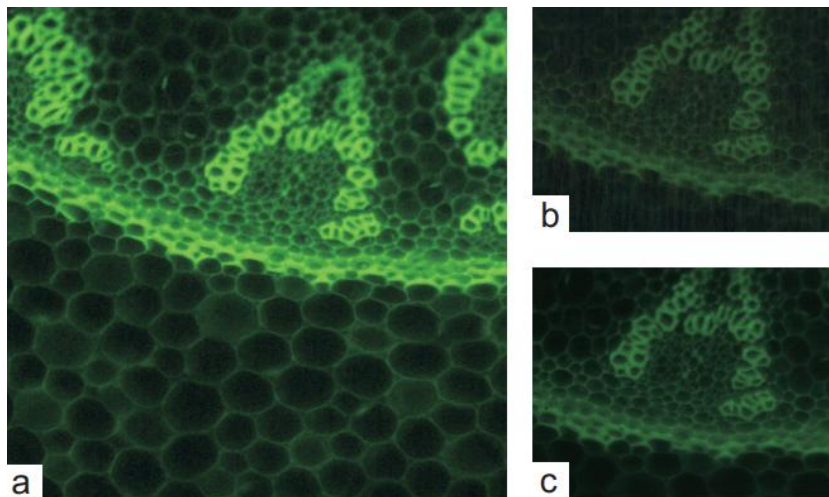
BUC6IA-400C Real-color Cooled FSI sCMOS Camera

BUC6IA-400C delivers both research grade sensitivity and perfect color reproduction. It has been designed to meet the needs of bright field high-quality color applications and to greatly expand fluorescence and other low light imaging application opportunities.

Feature

1. High sensitivity to acquire weak signals quickly

BUC6IA-400C produces perfect images in very low light conditions allowing for vastly reduced exposure times and corresponding high frame rates, whilst maintaining the richness of the image detail information.

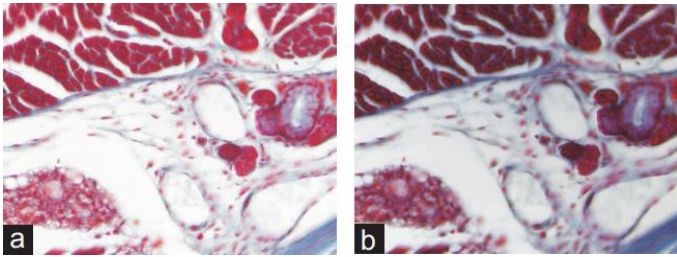


Exposure time: 3ms

- a. BUC6IA-400C Color sCMOS
- b. 2/3" ICX285 Color CCD
- c. 2/3" ICX285 Mono CCD

2. Perfect color reproduction for brightfield imaging

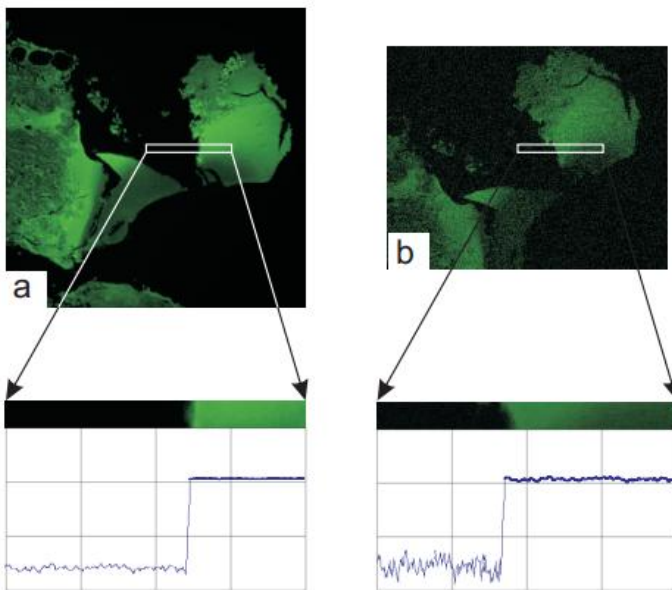
The color processing of BUC6IA-400C is capable of a new level of precision that imitates the color sensitivity of the human eyes, producing extreme-high color definition.



Comparison of Color Reproduction
a. Real-color sCMOS BUC6IA-400C
b. Conventional CCD color camera

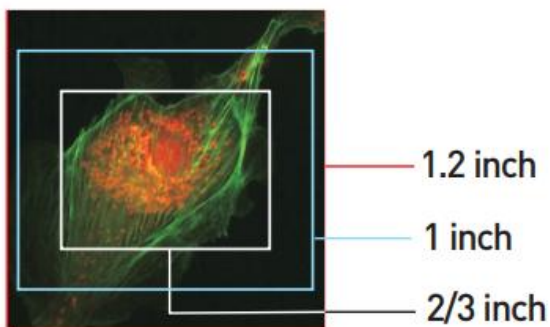
3. 2e- Low readout noise

The readout noise of BUC6IA-400C is only 1.7e-, just one-third of existing CCD or CMOS cameras in the market.



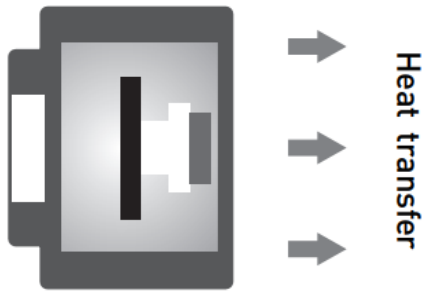
Comparison of the short noise amplitude
a. Real-color sCMOS BUC6IA-400C
b. Conventional CCD color camera

4. 1.2inch larger field of view



The 1.2inch chip offers microscope users a larger field of view, with a direct full frame observation experience.

5. -10°C Peltier cooled device



BUC6IA-400C utilizes Peltier technology and achieves an operating temperature of -10°C resulting in extremely low and stable dark current.

6. USB 3.0, faster transmission

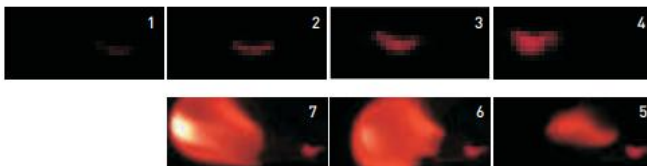


Uses USB3.0 high speed transmission.

7. Mosaic Software

In order to capitalize on the performance advantages of BUC6IA-400C, new Mosaic package has addressed image processing needs, providing users with more professional image analysis and processing solutions.

High-speed video recording, with data output up to 2000fps

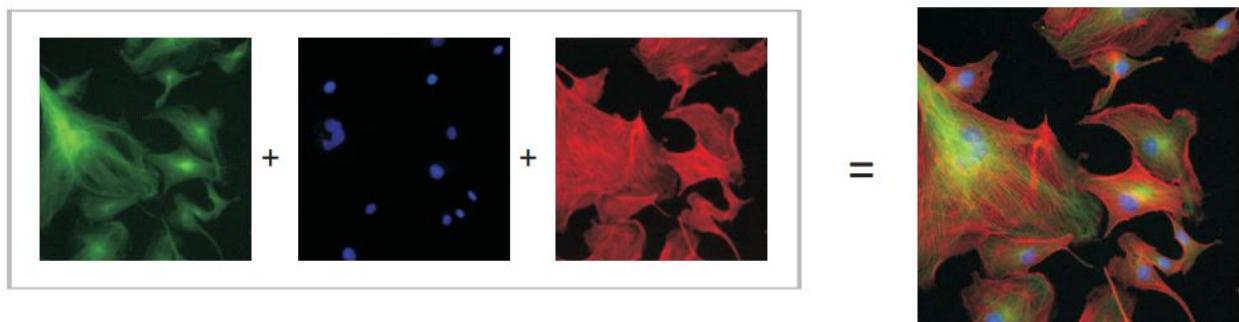


The process of kindling a match

Users can customize the ROI, and with RAW lossless high-speed video, which can be used for high-speed shooting.

Fluorescence synthesis, with previewing real-time effects

The Picture adjustments include: color temperature, gamma; brightness, contrast, saturation and sharpness.



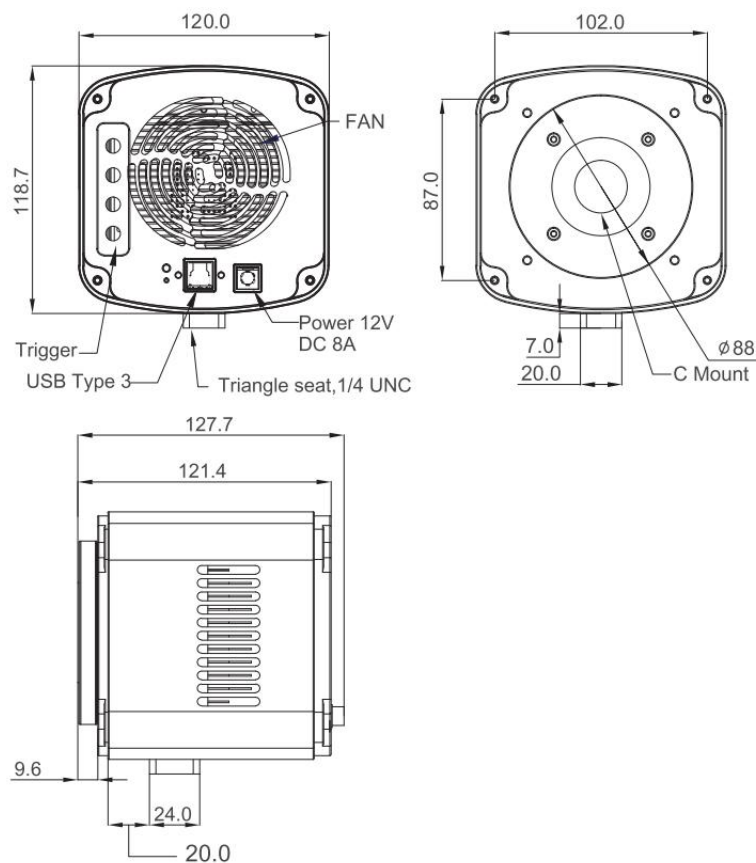
Specification

Item	Description
Sensor Type	FSI sCMOS
Sensor Model	Gpixel GSENSE2020
Color/ Mono	Color
Array Diagonal	18.8mm
Effective Area	13.3mm*13.3mm
Resolution	2048(H)*2044(V)
Pixel Size	6.5μm(H)*6.5μm(V)
Full-well Capacity	Typical: 45 ke-
Dynamic Range	86.6dB
Frame Rate	22fps@8bit, 16fps@16bit
Readout Noise	HighGain: 1.7e-
Shutter Mode	Rolling
Exposure Time	21μs-10s
Cooling Method	Forced air
Max. Cooling Temperature	Forced air (Ambient at +25°C): -10°C
Dark Current	0.12e-/pixel/s@-10°C
Binning	2*2
ROI	Support
Trigger Mode	Hardware & Software
Output Trigger Signal	Exposure start, Global, Readout end
Trigger Interface	Hirose
Data Interface	USB 3.0
Bit Depth	16 bit
Optical Interface	C-mount
Power Supply	12V/ 8A
Power Consumption	50W
Dimensions	120mm*119mm*121mm
Weight	1853g
Software	Mosaic, LabVIEW, MatLab, Micromanager
SDK	Support
Operating System	Windows, Linux
Operating Environment	Temperature 0-40°C, Humidity 10-85%

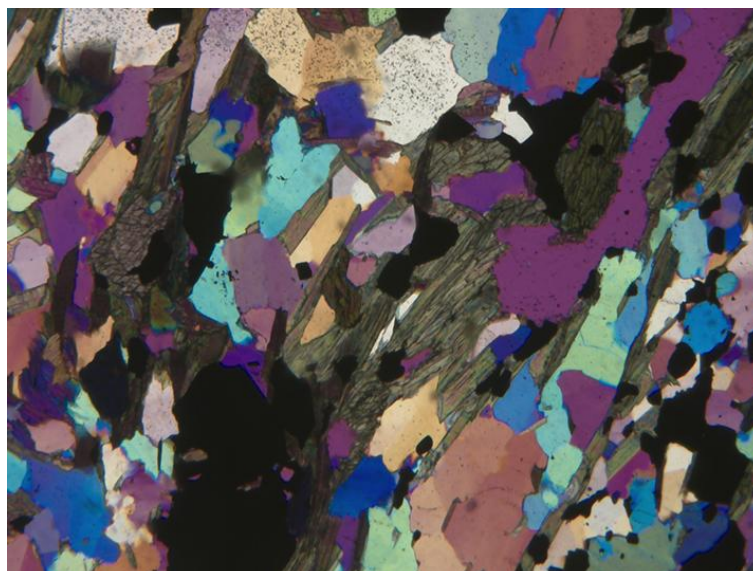
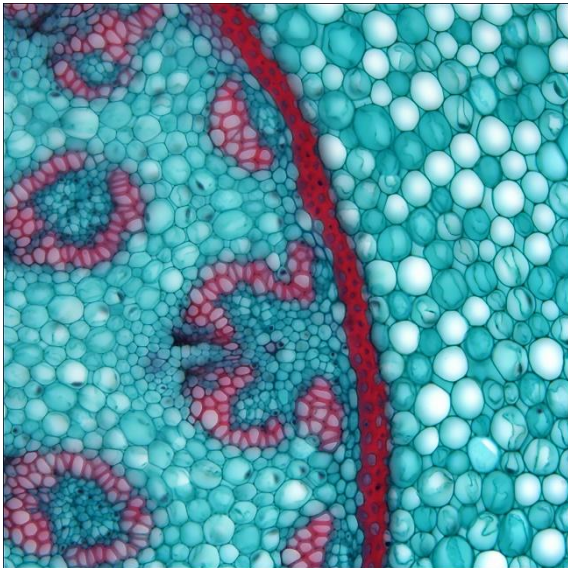
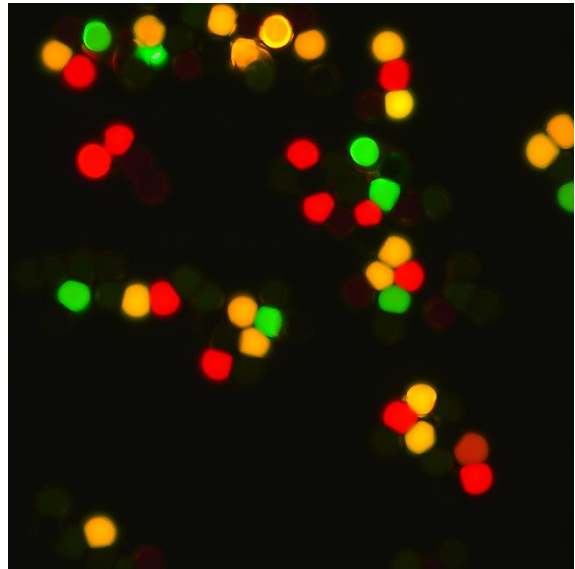
Functions of the Software	Description
Camera Control	Manual/ auto exposure, manual/ auto shite balance Manual/ auto levels, gain, flat field correction 3D denoise, cooling temperature

	Custom ROI, resolution selection, 8 or 16bit selection
	Support live preview and capture
	Support single / continuous / integral shooting
	High-speed video record (frame rate selection)
	Selectable file formats, parameter group save and reload
Image Processing	Thumbnails, zoom in/out, full screen or small window display
	Brightness, gamma, contrast, saturation, sharpness, color correction
	Add pseudo-color to monochrome picture, fluorescence synthesis
Image Measurement	Support dynamic / static measurement
	Support sub-layer measurement
	Support scale bar set, layer, precision, naming, style
	Point, line, rectangle, polygon, circle, arc, angle
	Line: straight line perpendicular parallel polyline
	Circle: O2 point O3 point diameter concentric
	Export to TXT or Excel

Dimensions



Sample Images



(4) BUC6IA-400D Cooled FSI sCMOS Camera

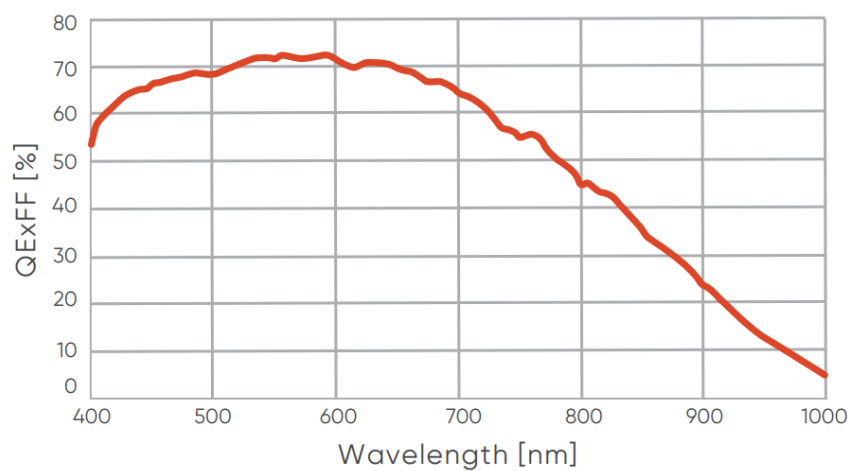


BUC6IA-400D Cooled FSI sCMOS Camera

Feature

BUC6IA-400D adopts a front illuminated sCMOS image sensor, with a peak quantum efficiency of 72% and a readout noise of only $2.1e^-$. Combined with advanced cooling noise reduction technology, its exposure time can be extended to several seconds or even minutes, making it very suitable for general low light imaging applications such as bioluminescence and chemiluminescence.

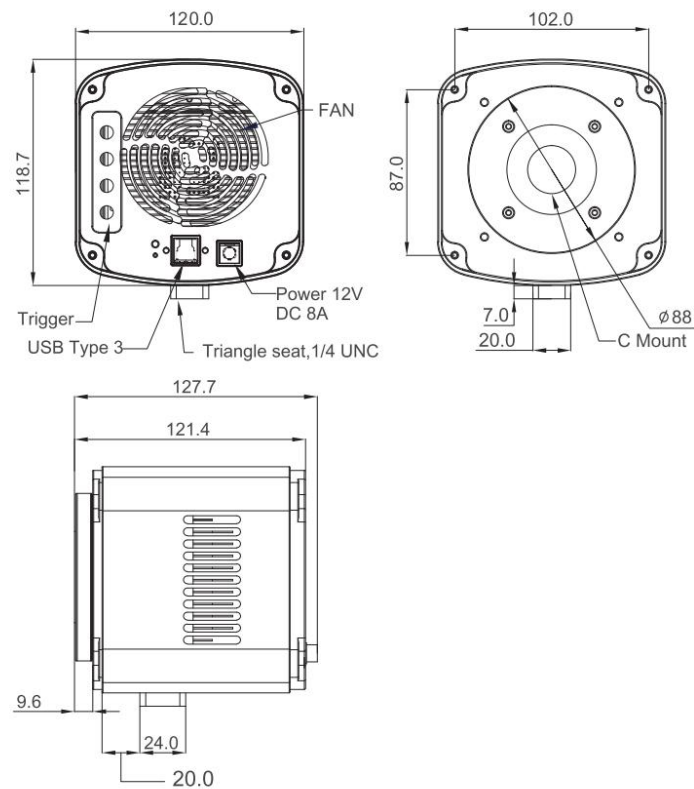
Quantum Efficiency



Specification

Item	Description
Sensor Type	FSI sCMOS
Sensor Model	Gpixel GSENSE2020
Peak QE	72%@595nm
Color/ Mono	Mono
Array Diagonal	18.8mm
Effective Area	13.3mm*13.3mm
Pixel Size	6.5μm(H)*6.5μm(V)
Full-well Capacity	Typical: 45 ke-
Dynamic Range	86.6dB
Frame Rate	35fps@16bit
Readout Noise	HighGain: 2e-
Shutter Mode	Rolling
Exposure Time	13μs-10s
Cooling Method	Forced air
Max. Cooling Temperature	Forced air (Ambient at +25°C): -10°C
Dark Current	0.12e-/pixel/s@-10°C
Binning	2*2
ROI	Support
Trigger Mode	Hardware & Software
Output Trigger Signal	Exposure start, Global, Readout end
Trigger Interface	SMA
Data Interface	USB 3.0
Bit Depth	16 bit
Optical Interface	C-mount
Power Supply	12V/ 8A
Power Consumption	60W
Dimensions	120mm*119mm*121mm
Weight	1853g
Software	Mosaic, LabVIEW, MatLab, Micromanager
SDK	Support
Operating System	Windows, Linux
Operating Environment	Temperature 0-40°C, Humidity 10-85%

Dimensions



Sample Images

