

STALWART

Cooled C-mount USB3.0 CMOS Camera STC5IA Series



STC5IA-Series

Introduction

STC5IA series cameras have adopted SONY IMX183 CMOS sensor(20.0MP resolution) and USB3.0 interface to increase the frame rate.

With the two-stage peltier cooling sensor chip to -40 degree below ambient temperature. This will greatly increase the signal to noise ratio and decrease the image noise. Smart structure is designed to assure the heat radiation efficiency and avoid the moisture problem. Electric fan is used to increase the heat radiation speed. The STC5IA series cameras can be widely used in low light environment and microscope fluorescence image capture and analysis.

Features

- **20 megapixels, capturing high-definition detailed images in one shot.**

The STC5IA-2000C/M's 1-inch sensor image can cover the most uniform central area of the image plane, with a resolution of up to 20 megapixels, you can capture the high-definition details of your samples in one shot.

- **Thermoelectric cooling noise reduction technology to meet more professional fluorescence imaging needs.**

With the top-level cooled camera technology, the STC5IA-2000C/M cooled camera operates at -15 °C and can ensure long-term reliable operation, significantly reducing the hot pixels caused by the accumulation of dark current, and obtaining a purer fluorescent background image. More than twice the sensitivity of a CCD, to meet the needs of professional fluorescence imaging.

- **Real-time intelligent image processing, focused on improving image quality.**

Without sacrificing speed and image information, the STC5IA-2000C/M offers a variety of real-time intelligent image processing capabilities that allow you to view and capture flawless sample images in real time with the click of a button.

- **50fps high speed video at 5.0MP resolution.**

With a guaranteed field of view, the FL 20 offers a variety of high-speed imaging modes that can be adjusted for fast focus and positioning for an efficient image capture experience.

- **Revolutionary PC Computing Imaging Software Capture V2.0**

Unique from the cumbersome process of traditional technology to obtain images after processing, the Capture V2.0 provides real-time image stitching and real-time depth of field fusion. This can automatically complete the image while the operator moves the stage -productivity at its best.

- **Advanced Cooling Technology Reduces Dark Current Down to 0.001e-/pixel/s**

STC5IA-2000C/M can achieve a dark current noise control level as low as 0.001e/sec, which significantly reduces the hot pixel noise during long exposure time.

Specification

Item	STC5IA-2000C	STC5IA-2000M
Color/Mono	Color	Mono
Sensor Model	Sony	Sony
Quantum Efficiency	84%@535nm	84%@495nm
Resolution	5472(H) x 3648(V)	5472(H) x 3648(V)
Pixel Size	2.40μm x 2.40μm	2.40μm x 2.40μm
Sensor Size	15.86mm; 1inch	15.86mm; 1inch
Shutter Mode	Rolling	Rolling
Read Noise	<1e-	<0.8e-
Dark current	0.001e-/pixel/s	0.001e-/pixel/s
Cooling	Forced air(Ambient at +25°C):-15°C	Forced air(Ambient at +25°C):-15°C
Frame Rate	14fps@5472x3648, 53fps@2736x1824 67fps@1824x1216	16fps@5472x3648(8bit), 8fps@5472x3648(16bit), 53fps@2736x1824(8bit), 22fps@2736x1824(16bit)
Binning	2x2, 4x4	2x2, 3x3, 4x4, 8x8
Exposure Settings	Auto/Manual	Auto/Manual
Exposure Time	0.244ms - 2mins	0.244ms - 60mins
Picture Format	JPG/PNG/TIFF/DICOM	JPG/PNG/TIFF/DICOM
Data Interface	USB3.0	USB3.0
Bit Depth	16bit/8bit	16bit/8bit
Camera Size	85mm x 85mm x 100mm	85mm x 85mm x 100mm
Power Supply	12V/8A	12V/8A
Camera Weight	1200g	1200g
PC Software	Captrue V2.0	Captrue V2.0
Operating System	Windows(32bit/64bit)	Windows(32bit/64bit)
Operating Environment	Operating: 0-40°C Humidity: 10%-85%	Operating: 0-40°C Humidity: 10%-85%