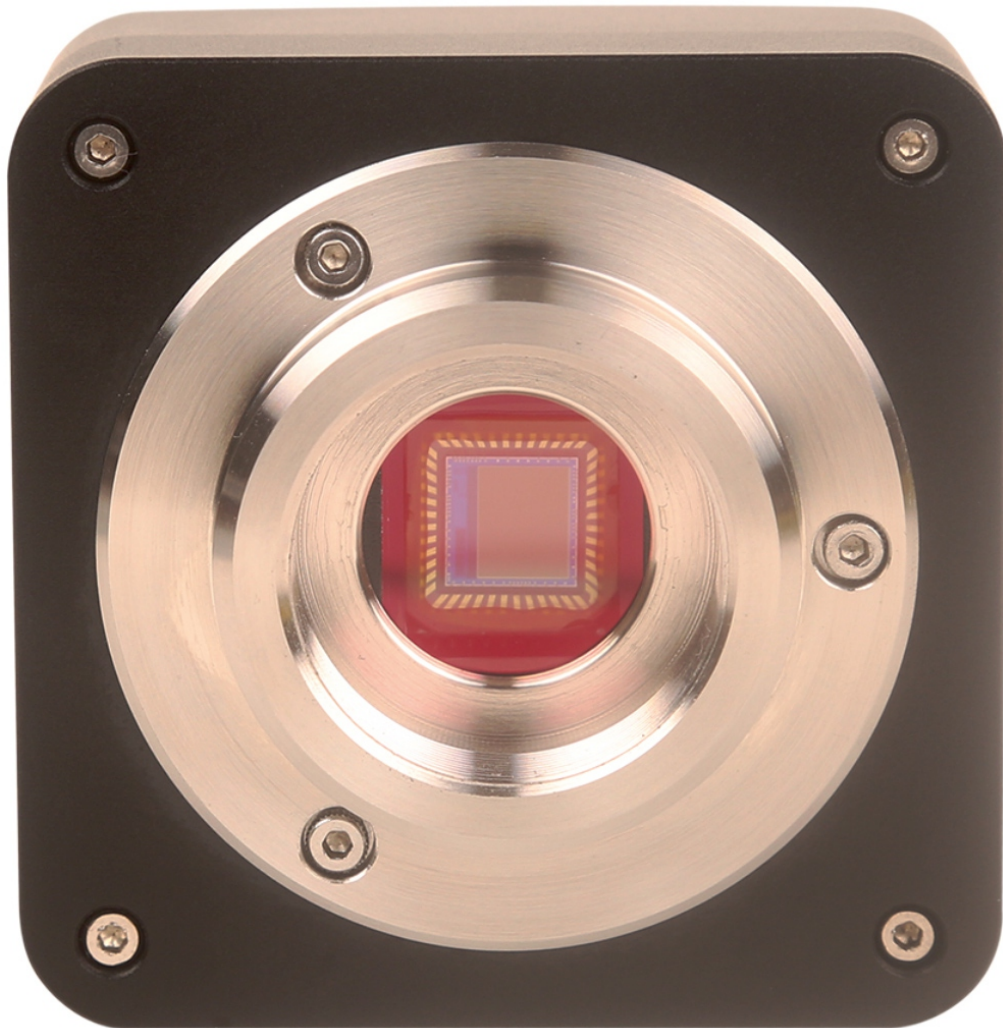


STALWART

CMOS Color Microscope Digital Camera STC2E Series



STC2E-Series

Introduction

STC2E series cameras adopt SONY Exmor CMOS sensor as the image-picking device and USB2.0 is used as the data transfer interface.

STC2E hardware resolutions range from 1.2M to 8.3M and come with the integrated CNC aluminum alloy compact housing.

STC2E comes with advanced video & image processing application ImageView; Providing Windows/Linux/ OS X multiple platforms SDK; Native C/C++, C#/VB.NET, DirectShow, Twain Control API.

The STC2E can be widely used in bright field light environment and microscope image capture and analysis with higher frame rate.

Features

- SONY Exmor, Exmor R(Back-illuminated), Exmor RS CMOS sensor with USB2.0 interface;
- Real-time 8/12/14/16bit depth switch(depending on sensor);
- Super high sensitivity up to 2040mV(IMX224);
- Ultra low noise and low power dissipation by using column-parallel A/D conversion;
- With hardware resolution among 1.2M to 8.3M;
- Rolling Shutter;
- Standard C-Mount camera;
- CNC aluminum alloy housing;
- USB2.0 interface ensuring high speed data transmission;
- With advanced video & image processing application ImageView;
- Providing Windows/Linux/Mac OS multiple platforms SDK;
- Native C/C++, C#/VB.Net, DirectShow, Twain.

Specification

Item	STC2E-830C	STC2E-660C	STC2E-530C	STC2E-500C
Sensor & Size(mm)	8.3M/IMX274© 1/2.5"(6.22x3.50)	6.6M/IMX326© 1/2.9"(4.98x3.50)	5.3M/IMX178© 1/1.9" (7.37x4.15)	5.0M/IMX335© 1/2.8" (5.18x3.89)
Pixel(μm)	1.62x1.62	1.62x1.62	2.4x2.4	2.0x2.0
G Responsivity	236mv with 1/30s	236mv with 1/30s	425mv with 1/30s	505mv with 1/30s
Dynamic range	0.1mv with 1/30s	0.1mv with 1/30s	0.15mv with 1/30s	0.13mv with 1/30s
SNRmax				
FPS/Resolution	4@3840x2160 16@1920x1080	5@3072x2160 6@2592x1944 6@3072x1728 7@2160x2160	5.5@3072 x1728 35@1280x720	6.4@2592 x1944 26.7@1296x972
Binning	1x1 2x2	1x1 1x1 1x1 1x1	1x1, 2x2	1x1,2x2
Exposure	0.244ms~15s	0.244ms~15s	0.105ms~15s	0.1ms~15s

Specification

Item	STC2E-310C	STC2E-200C	STC2E-120C
Sensor & Size(mm)	3.1M/IMX123© 1/2.8" (5.12x3.84)	2.0M/IMX290© 1/2.8"(5.56x3.13)	1.2M/IMX224© 1/3"(4.80x3.60)
Pixel(μm)	2.5x2.5	2.9 x2.9	3.75 x3.75
G Responsivity	600mv with 1/30s	1300mv with 1/30s	2040mv with 1/30s
Dynamic range	0.15mv with 1/30s	0.15mv with 1/30s	0.15mv with 1/30s
SNRmax			
FPS/Resolution	10.5@2048x1536 15@1920x1080	17@1920x1080	27@1280x960 54@640x480
Binning	1x1	1x1	1x1, 2x2
Exposure	0.105ms~15s	0.105ms~15s	0.105ms~15s

Other Specification for STC2E 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

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 Port
	Display: 17" or Larger CD-ROM

Dimension

The STC2E 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. This design ensures a rugged, robust solution with an increased lifespan when compared to other industrial camera solutions.