

STALWART

CMOS Color Microscope Digital Cameras STC2C Series



STC2C-Series

Introduction

STC2C series cameras adopt ultra-high performance CMOS sensor as the image-capture device. USB2.0 is used as the data transfer interface.

STC2C series cameras' hardware resolutions ranges from 0.35M to 14M and come with the zinc aluminum alloy compact housing. STC2C 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 STC2C can be widely used in bright field light environment and microscope image capture and analysis with moderate frame rate

Features

- Standard C-Mount with Aptina CMOS sensor;
- With hardware resolution among 0.35M to 14M;
- Durable zinc aluminum alloy housing;
- USB2.0 interface ensuring high speed data transmission;
- Ultra-Fine™ color engine with perfect color reproduction capability;
- With advanced video & image processing application ImageView;
- Providing Windows/Linux/Mac OS multiple platforms SDK;
- Native C/C++, C#/VB.NET, DirectShow, Twain Control API.

Specification

Item	STC2C-1400C	STC2C-1000C	STC2C-900C	STC2C-800C
Sensor & Size(mm)	14M/MT9F002(C) 1/2.3"(6.451x 4.603)	10M/MT9J003© 1/2.3" (6.44x4.616)	9M/Special© 1/2.4"(5.825x 4.369)	8M/Special© 1/2.5"(5.451x 4.088)
Pixel(μm)	1.4x1.4	1.67x1.67	1.67x1.67	1.67x1.67
G Responsivity	0.724v/lux-sec	0.31v/lux-sec	0.31v/lux-sec	0.31v/lux-sec
Dynamic range	65.3dB	65.2dB	65.2dB	65.2dB
SNRmax	35.5dB	34dB	34dB	34dB
FPS/Resolution	1.8@4096x3288 10@2048x1644 27@1024x822	1.9@3584x2748 8@1792x1374 27@896x684	1.9@3488x2616 8@1744x1308 27@872x654	1.9@3264x2448 8@1600x1200 27@800x600
Binning	1x1, 2x2, 4x4	1x1, 2x2, 4x4	1x1, 2x2, 4x4	1x1, 2x2, 4x4
Exposure	0.4ms~2000ms	0.4ms~2000ms	0.4ms~2000ms	0.4ms~2000ms

Specification

Item	STC2C-500C	STC2C-300C	STC2C-200C	STC2C-123C
Sensor & Size(mm)	5.1M/MT9P001© 1/2.5" (5.7x4.28)	3.1M/MT9T001© 1/2" (6.55x4.92)	2.0M/Special© 1/2.6"(5.12x3.84)	1.23M/SC1235© 1/3" (4.80x3.60)
Pixel(μm)	2.2x2.2	3.2x3.2	3.2x3.2	3.75x3.75
G Responsivity	0.53 V/lux-sec	1.0 V/lux-sec	1.0 V/lux-sec	4.5V/lux-sec
Dynamic range	66.5dB	61dB	61dB	74dB
SNRmax	40.5dB	43dB	43dB	38dB
FPS/Resolution	5@2592x1944 18@1280x960 60@640x480	8@2048x1536 22@1024x768 43@680x510	16@1600x1200 50@800x600	15@1280x960 15@1280x720
Binning	1x1, 2x2, 4x4	1x1, 2x2, 3x3	1x1, 2x2	1x1, 1x1
Exposure	0.294ms~2000ms	0.244ms~2000ms	0.128ms~2000ms	0.14ms~2000ms

Specification

Item	STC2C-130M	STC2C-35C
Sensor & Size(mm)	1.3M/MT9M001(M) 1/2" (6.66x5.32)	0.35M/MT9V011© 1/4" (3.58x2.69)
Pixel(μm)	5.2x5.2	5.6x5.6
G Responsivity	2.1 V/lux-sec	1.9V/lux-sec
Dynamic range	68.2dB	60dB
SNRmax	45dB	45dB
FPS/Resolution	20@1280x1024	30@640x480 80@320x240
Binning	1x1	1x1, 2x2
Exposure	0.14ms~500ms	0.111ms~192ms

Other Specification for STC2C 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 and Labview
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 High-speed Port
	Display:17" or Larger
	CD-ROM

Dimension

The STC2C 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.