

STALWART

CMOS Color Microscope Digital Eyepiece Camera SDE2-Series



SDE2-Series

Introduction

SDE3 is an extension of 's SDE2 series camera with fixed reduction lens to increase the field of view from the microscope eyepiece tube. The SDE3 is still an economic version with simple and compact structure CMOS. The SDE2 series come with high-speed USB2.0 interface and high frame rate video display, which keep the screen smooth without interruption;

Also the SDE2 comes with advanced video & image processing application Image View;

The SDE2 can be widely used to transfer the monocular or binocular student microscopes to digital microscope.

With 23.2 to 30mm or 23.2 to 30.75 convert ring, the SDE2 camera can also change the stereo microscope to digital stereo microscope.

Features

- Microscope eyepiece camera with 23.2 diameter and compact size;
- Easy to extend to C or CS- Mount camera with high quality lens(optional);
- High-quality camera with Aptina CMOS sensor;
- Auto white balance and auto-exposure; Brightness, contrast, chroma and saturation can be adjusted;
- High-speed USB2.0 interface and high frame rate video display keep the screen smooth without interruption;
- 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 | SDE2-500C | SDE2-300C | SDE2-200C | SDE2-200BC |
|-------------------|------------------------------------------------------------|---------------------------------------------|----------------------------------------------------------|---------------------------------------------|
| Sensor & Size(mm) | 5.0M/Aptina(C) 1/2.5" (5.70x4.28) | 3.0M/Aptina(C) 1/2.7" (4.506x3.379) | 2.0M/Aptina(C) 1/3.2" (4.48x3.36) | 2.0M/OV2710© 1/2.7"(5.76x3.24) |
| Pixel(μm) | 2.2x2.2 | 2.2x2.2 | 2.8x2.8 | 3x3 |
| G Responsivity | NA | NA | NA | 3.3V/ Lux-sec |
| Dynamic range | | | | 69dB |
| SNRmax | | | | 39dB |
| FPS/Resolution | 2@2592x1944 3@2048x1536 5@1600x1200 7.5@1280x1024 | 3@2048x1536 5@1600x1200 7.5@1280x1024 | 5@1600x1200 7.5@1280x1024 20@800x600 22@640x480 | 25@1920x1080 30@1280x1024 30@1280x720 |
| Binning | N/A | N/A | N/A | N/A |
| Exposure | Auto | Auto | Auto | Auto |

Specification

| Item | SDE2-130C | SDE2-92C | SDE2-35C |
|-------------------|------------------------------------------------|-------------------------------------|-------------------------------------|
| Sensor & Size(mm) | 1.3M/Aptina(C) 1/3" (4.60x3.70) | 0.92M/BG0703© 1/2.7" (5.80x3.28) | 0.35M/Aptina(C) 1/4" (3.58x2.69) |
| Pixel(μm) | 3.6x3.6 | 4.5x4.5 | 5.6x5.6 |
| G Responsivity | NA | 5.8V/ Lux-sec | NA |
| Dynamic range | | 65dB | |
| SNRmax | | 43dB | |
| FPS/Resolution | 7.5@1280x1024 12.5@1024x768 12.5@800x600 | 25@1280x720 25@640x480 | 30@640x480 |
| Binning | N/A | N/A | N/A |
| Exposure | Auto | Auto | N/A |

| Other Specification for SDE Camera | |
|------------------------------------|--------------------------------------------------------|
| Spectral Range | 380-650nm (with IR-cut Filter) |
| White Balance | Auto White Balance |
| Color Technique | N/A |
| 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) | 380-650nm (with IR-cut Filter) |
| Storage Temperature(in Centigrade) | Auto White Balance |
| Operating Humidity | N/A |
| Storage Humidity | Native C/C++, C#/VB.NET, DirectShow, Twain and Labview |
| Power Supply | Still Picture and Movie |

Software

| | |
|------------------|----------------------------------------------------------|
| Operating System | Microsoft® Windows® XP / Vista / 7 / 8 /10 (32 & 64 bit) |
| | OSx(Mac OS X) |
| | Linux |
| | CPU: Equal to Intel Core2 2.8GHz or Higher |
| | Memory: 2GB or More |
| PC Requirements | USB Port: USB2.0 High-speed Port |
| | Display: 17" or Larger |
| | CD-ROM |

Dimension

The SDE's body is made of aluminum alloy blackening, ocular housing: Dia.27.2 X 40mm ensures a heavy duty, workhorse solution. The camera is designed with a high quality IR-CUT filter to filter the infrared light and protect the camera sensor. No moving parts included. These measures ensure a rugged, robust solution with an increased lifespan when compared to other camera solutions.