

## 1.3 Megapixel CMOS USB 2.0 Industrial Camera

### Features

- 1.3 megapixel resolution (1280 x 1024 pixels)
- 1/2 inch CMOS sensor
- Maximum frame rates:
  - 12 fps @ 1280 × 1024 (Color)
  - 15 fps @ 1280 × 1024 (Monochrome)
  - 30 fps @ 1280 × 1024 SKIP2 (Color and Monochrome)
- High-speed USB 2.0 interface, up to 480 Mbit/s
- Progressive scan
- Electronic rolling shutter
- Windows® XP/+ application
- Multiple mounting angles, suitable for all kinds of installation requirements
- User can choose AOI area (Area of Interest)
- Separate image capture and preview, supports high-speed preview, high-quality acquisition
- Supports SKIP2/SKIP4/SKIP8 3 extraction modes
- Brightness of all modes and resolution switch is the same
- Gamma correction, extended RGB gain
- Support for still image capture (JPG, BMP)
- Color camera supports 8-bit, 24-bit, 32-bit bitmap preview and capture
- Monochrome camera supports 8-bit bitmap
- Supports uncompressed or compressed video
- Includes API and Demo Source Code
- Hardware automatic gain control (AGC) and Exposure Control (AEC)
- Auto or manual white balance and exposure control
- No external power supply required
- Supports VC, Visual Basic, Delphi®, LabVIEW® and other development languages
- Supports Twain
- Support for standard C-mount lenses and all kinds of customized lenses
- Durable aluminum alloy shell
- Firmware can be upgraded online

**High Sensitivity, Low Cost, 1.3 Megapixel (1280 x 1024), 1/2 Inch, CMOS, USB Powered, USB 2.0 Camera. C Mount with Support for Customized Lenses. Available in Color or Monochrome.**



### Overview

CMOS technology has advanced very rapidly in the last three years. Today it is preferred over CCD in most cases, except where low light conditions impact the lower sensitivity of CMOS sensors. With their compact design and low power use, CMOS cameras take over segments of the imaging market where cost is an issue. CMOS is particularly competitive wherever lighting is good and a compact low power use camera is desirable.

The CMOS Astrium™ 1.3 megapixel industrial digital camera is 2.13 inches wide by 1.77 inches high. It features high sensitivity, high dynamic range, a rolling shutter, and many other useful features. This cost effective camera is widely used in machine vision and a variety of image acquisition areas.

With the included Application Program Interface (API), you can easily integrate the CMOS Astrium into your applications.

### Applications

- Microscopy
- High resolution graphics capture
- Medical imaging
- Non-contact measurements
- Motion capture
- Photo ID systems
- Other industrial and scientific applications

## Specifications

### General Specifications

Image Sensor	1/2 inch CMOS
Picture Size	1280 x 1024
Pixel Size	5.2 $\mu\text{m}$ × 5.2 $\mu\text{m}$
Maximum Resolution	1280 × 1024
Maximum Frame Rate	12 fps @ 1280 × 1024 (Color) 15 fps @ 1280 × 1024 (Monochrome) 30 fps @ 1280 × 1024 SKIP2 (Color and Monochrome)
Spectral Response	400 nm ~ 1000 nm
Sensitivity	1.8V/lux-sec@550nm
Scan Mode	Progressive Scan
Exposure Mode	Electronic rolling shutter
White Balance	Auto / Manual
Exposure Control	Auto / Manual, Software/Hardware
Image Output	USB 2.0, 480 Mb/s
Dynamic Range	62 dB
Signal to Noise	45 dB
Programmable control	Image size, contrast, brightness, gain, exposure time
Software Function	Image display, image processing, video

### Physical and Power

Power	USB 2.0 power supply, 500 mW
Operating Temperature	0°C~60°C (32° to 140° F)
Net weight	120g (4.2 ounces)
Camera Dimensions	54 mm × 54 mm × 45 mm (LxWxH) 2.13 x 2.13 x 1.77 inches (LxWxH)

## Ordering Information

**CMOS Astrium/C – Color Camera**  
**CMOS Astrium/BW – Monochrome Camera**

### Accessories Included:

Standard infrared filter (color camera only)  
 C/CS mount connecting ring  
 Two meter USB cable  
 CD with software and SDK

## Sample of GUIs

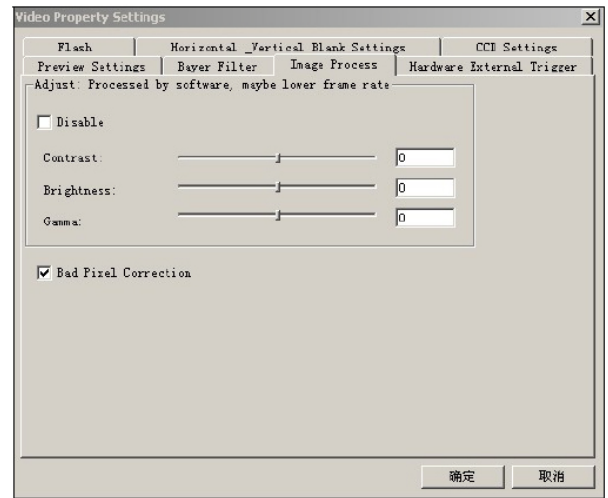
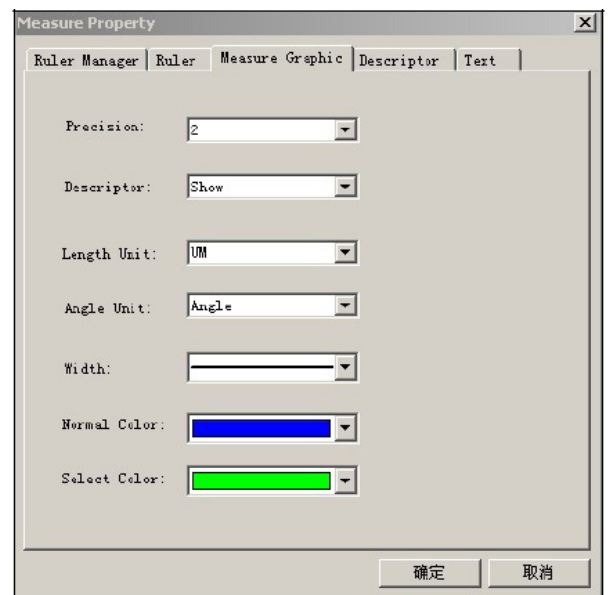


Image Settings GUI



Measurement GUI

## Rear View

