AxioCam IC
Compact Performance

AxioCam ICc 3

AxioCam ICc 1

**The Economical Entry-level Camera for
Digital Image Documentation and Analysis
in Laboratory and Routine Work**

ZEISS

We make it visible.

AxioCam IC from Carl Zeiss: Simply Good Results

Compact, versatile, and easy to operate. With two new color cameras in the AxioCam family, Carl Zeiss increased the options for entering the world of Digital Imaging to everyone. Used in combination with educational microscopes and stereomicroscopes, AxioCam IC offers good image quality for a range of applications. The full integration of the smallest products from the Carl Zeiss "Blues" into the AxioVision system software satisfies many routine requirements in everyday materials and laboratory microscopy: documentation, measurement and analysis techniques as well as Z-stack images. This camera is a new professional solution for high resolution, color, speed, and reliability.

Speed: AxioCam ICc 1

AxioCam ICc 1 with its 1.4-megapixel resolution is perfect for applications that demand a responsive live image. The 1/2" CCD sensor reads out the image quickly, and the FireWire connection transfers it to your PC in real time. The exposure time is adjustable between 1 millisecond and 4 seconds. Greater speeds can be achieved by setting the desired frame (ROI): depending on the exposure time, AxioCam ICc 1 can acquire rapid time lapse images at up to 30 images a second.

High resolution: AxioCam ICc 3

3.3 megapixels, a slightly larger CCD sensor at 1/1.8" and the same setting parameters – all features of AxioCam ICc 3. It is ideal for the high-resolution, needle-sharp display of static specimens. The precision of digitization can be set to 3 x 8 bits per pixel or 3 x 12 bits per pixel. Yet there is no need to compromise on speed. You can choose between two live modes, achieving image rates between 6 and 39 images per second.

Intelligent integration: with AxioVision anything is possible

Diverse applications demand performance. You can use AxioCam IC with AxioVision software modules for botany, zoology, pathology and histology applications as well as in damage documentation and analysis, quality testing, production control and forensics. Brightfield applications or other techniques with sufficient light intensity are ideals for Axio Cam IC cameras. AxioVision LE is provided with AxioCam IC creating a great combination with image processing and analysis capabilities.

Detailed information on AxioVision modules can be found at **www.zeiss.de/axiovision**

System solutions with AxioCam IC

Integrated into the system and interacting perfectly with the microscope and the AxioVision software, AxioCam IC demonstrates an impressive performance spectrum. Depending on requirements, it can be used for training and in research tasks. AxioCam IC can be combined with all microscopes and systems such as Axio Observer, Axio Imager, SteREO Discovery and Primo Star. It is mounted very quickly and easily with the C-mount adapter and it is immediately ready for use.

1.

2.
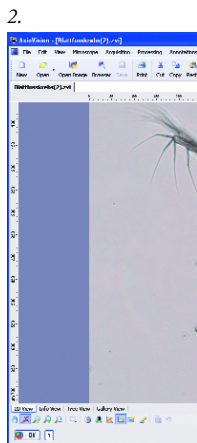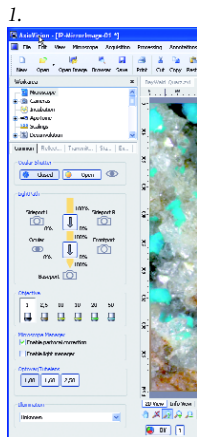
An economic decision

For users of educational microscopes or simple stereomicroscopes, AxioCam IC is the ideal gateway to the world of professional digital documentation and analysis. Supplied complete with AxioVision LE, these cameras are ready to use out of the box.

Better in digital: more possibilities

No comparison with limited video technology: the significantly higher resolution and free adjustment of the exposure time to the acquisition situation satisfy all basic requirements at a professional level.

Digital precision: reproducible measurement

Adaptation via a C-mount adapter not only supplies good optical quality; a further advantage is the fixed magnification for measuring with maximum accuracy and reproducibility. Combine it with objective-specific scaling in AxioVision to achieve precise measuring results.

No artifacts: uncompressed data

Loss-free display: linear, uncompressed data are transferred from AxioCam IC to the PC, without image compression artifacts or data preprocessing.

Optimized modes for fast live images

The rapid FireWire connection transfers the image data to the PC without delay. With AxioCam ICc 3, two live image modes support quick focusing and selection of a sample position for routine work in everyday laboratory practice.

Compact and usable anywhere

Microscope or stand: in addition to use as a microscope camera, AxioCam IC is also well-suited to photomacrography as in the materials laboratory for example. The camera is mounted on the stand using an optional photo stand connection.

### Easy operation with AxioVision

Camera control in AxioVision makes operation in all areas of application as simple as possible. Practical functions, simple exposure time measurement, fast determination of the white balance as well as the saving and loading of all settings make work quick and easy.

Modular software for growing demands

AxioCam IC grows as your tasks dictate. Combination with numerous AxioVision modules means it can be used in a great range of materials research applications or basic biological tasks. Together with AxioVision, AxioCam IC adapts quickly to growing requirements.
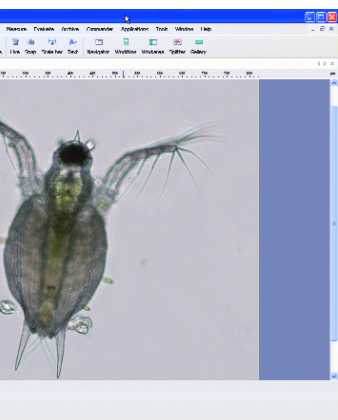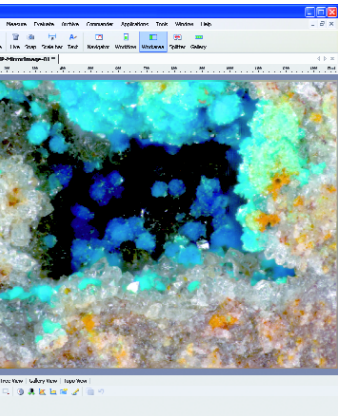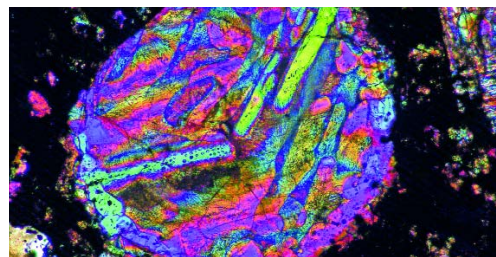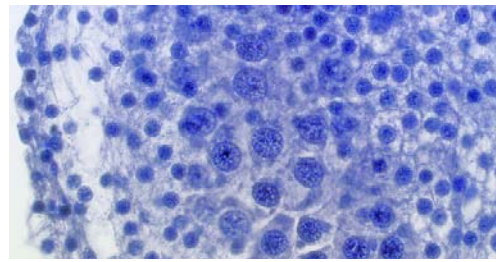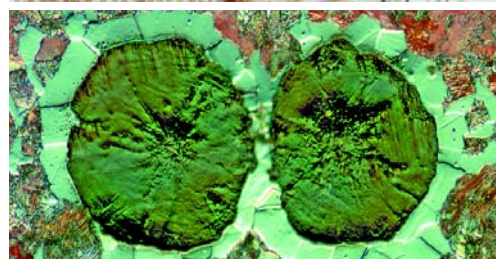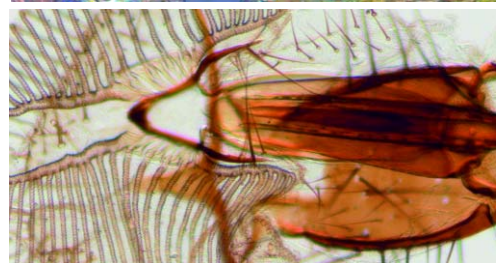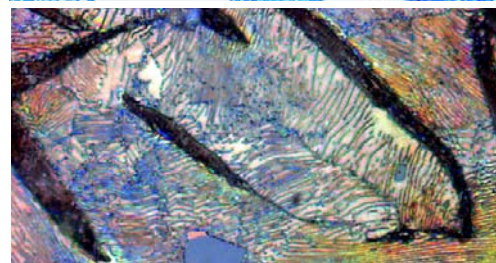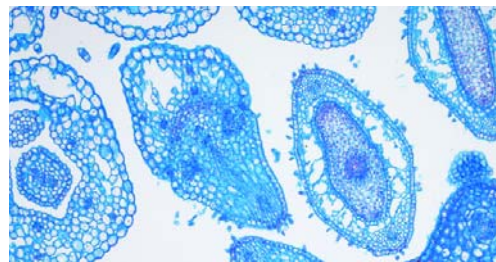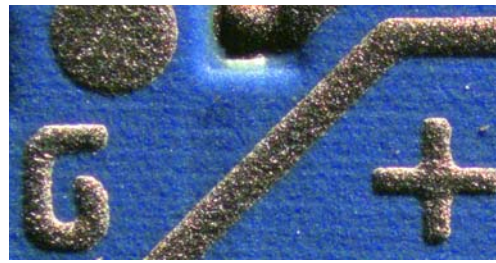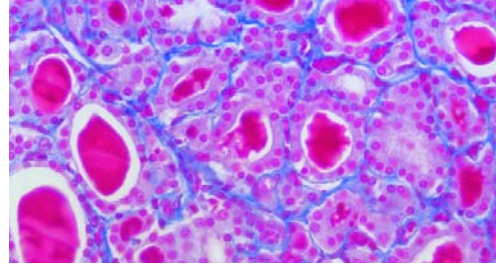
1. Crystal structure, acquired using SteREO Discovery.V8 and AxioVision Extended Focus module
2. Predatory water flea (Polyphemus pediculus), ventral view, transmitted light, acquired using Axio Imager
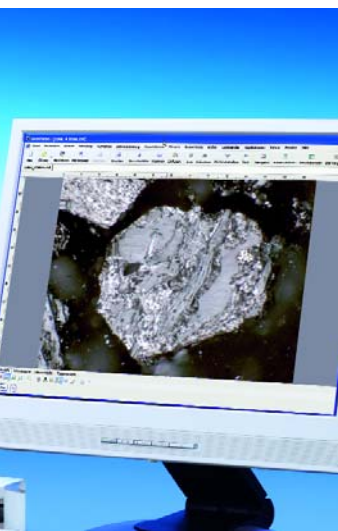
AxioCam IC: Data and Facts

AxioCam ICc 1

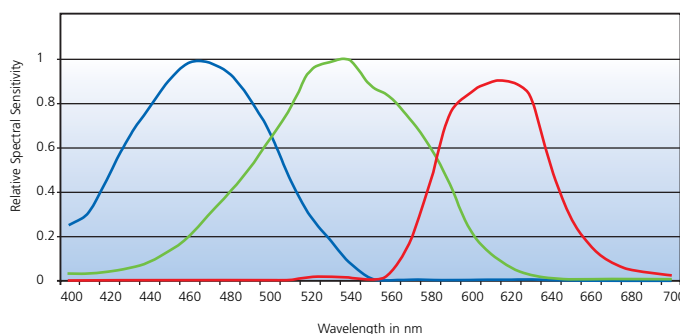|	
Sensor	Sony ICX 267, progressive readout, RGB filter mask
CCD basic resolution	1392 x 1038 = 1.4 megapixels
Pixel size	4.65 µm x 4.65 µm
Sensor size	6.3 mm x 4.8 mm, equivalent 1/2" (diagonal 7.9 mm)
Spectral range	Approx. 400 nm-700 nm, IR-Filter
Max. file size per image	Approx. 4.3 MB at 1392 x 1038 pixels at 3 x 8 bits (24 bit color depth)
Readout of subframes (ROI)	Freely selectable
Signal amplification	24 dB analog
Digitization	3 x 8 bits/pixel
Interface	FireWire IEEE 1394a (400 megabits/s)
Range of integration time	1 ms up to 4 s
Live image	17 fps at 1392 x 1038 pixels, full frame 28 fps at 768 x 520 pixels, subframe 30 fps at 600 x 480 pixels, subframe
Optical interface	C-Mount
Housing	44 mm x 44 mm x 42.5 mm
Operating system	Microsoft® Windows 2000 Professional Microsoft® Windows XP Professional
Registration	CE
Power supply	10-33 V, DC, 3 W power supply provided by FireWire bus from PC (external power supply only for notebook operation required)
Ambient condition (operation)	+5° to +45° Celsius, max. 80% relative humity, no condensation, free air circulation required
Order number	426552-9901-000

AxioCam ICc 3

Sensor	Sony ICX 262 AQ, interlaced readout, RGB filter mask
CCD basic resolution	2080 x 1540 = 3.3 megapixels
Pixel size	3.45 µm x 3.45 µm
Sensor size	8.1 mm x 4.8 mm, equivalent 1/1.8" (diagonal 8.9 mm)
Spectral range	Approx. 400 nm-700 nm, IR-Filter
Max. file size per image	Approx. 18.9 MB at 2080 x 1540 pixels at 3 x 12 bits (36 bit color depth)
Readout of subframes (ROI)	Freely selectable
Signal amplification	20 dB analog
Digitization	3 x 8 bits/pixel or 3 x 12 bits/pixel
Interface	FireWire IEEE 1394a (400 megabits/s)
Range of integration time	1 ms up to 4 s
Live image	6 fps at 2080 x 1540 pixels (interlaced) 39 fps at 344 x 254 pixels (progressive) 10 fps at 1280 x 960 pixels, subframe 15 fps at 780 x 520 pixels, subframe
Optical interface	C-Mount
Housing	44 mm x 44 mm x 42.5 mm
Operating system	Microsoft® Windows 2000 Professional Microsoft® Windows XP Professional
Registration	CE
Power supply	10-33 V, DC, 3 W power supply provided by FireWire bus from PC (external power supply only for notebook operation required)
Ambient condition (operation)	+5° to +45° Celsius, max. 80% relative humity, no condensation, free air circulation required
Order number	426551-9901-000

Relative Spectral Sensitivity AxioCam ICc 1 (incl. IR-Filter)
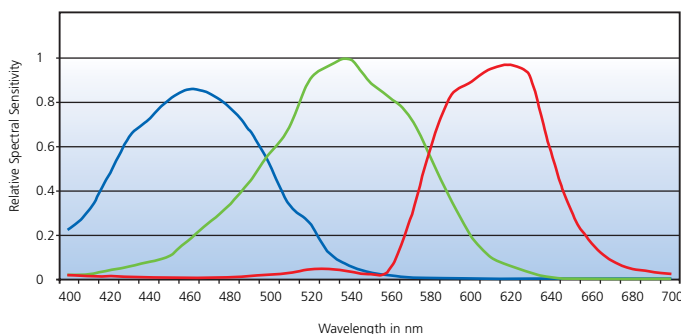
Relative Spectral Sensitivity AxioCam ICc 3 (incl. IR-Filter)