# Capture microscope images the smart way.



## ZEISS Axiocam 212 color

Your Clever, 12 Megapixel Microscope Camera for
Smart Digital Documentation
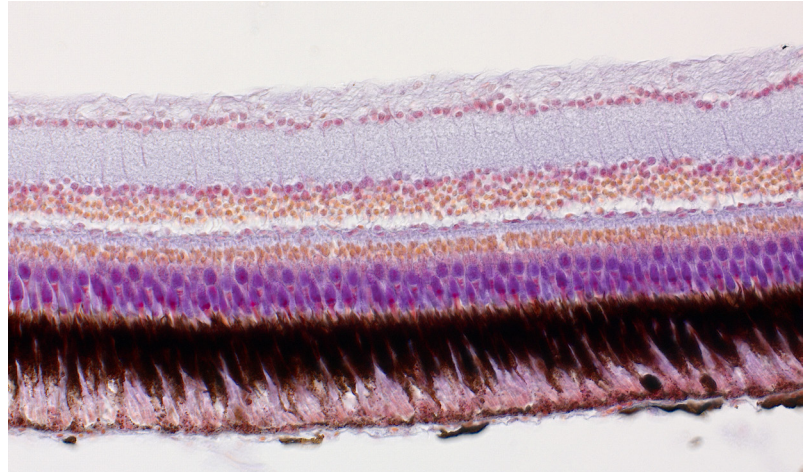
Seeing beyond

# ZEISS Axiocam 212 color

## Your Clever, 12 Megapixel Microscope Camera for Smart Digital Documentation



*Retina in brightfield, mouse embryo, Azan staining. Acquired with ZEISS Axiolab 5, objective: Plan-Apochromat 40×/0.95 Corr*

ZEISS Axiocam 212 color is your smart **12 megapixel color** microscope camera suitable for education, documentation and routine applications. This CMOS camera delivers crisp, detail rich live images with high color fidelity at **full 4k resolution in up to outstanding 30 fps**. Choose between modes of operation:

- In stand-alone mode, you don't need a PC to acquire microscope images. All necessary controls you reach via the on-screen display (OSD) of the microscope camera. The camera automatically adjusts brightness and white balance and offers live image enhancement functions like sharpening, denoising and HDR. Digital documentation of your specimen has never been easier.
- Alternatively, connect the CMOS camera via USB, Ethernet or wirelessly via Wi-Fi dongle to a computer and the imaging software Labscope or ZEN. Since you can connect multiple cameras to the network, Axiocam 212 color is the ideal solution for digital classroom applications and for connected laboratories, too.

Axiocam 212 color comes with a TWAIN driver that provides basic camera functionalities. It enables secure image data transfer to TWAIN-compatible 3rd party software solutions such as those often used in routine laboratories. If you combine Axiocam 212 color with Axiolab 5, Axioscope 5 or Axioscope 7 microscope stands you can experience the full concept of smart microscopy. The camera communicates with the microscope and e.g. extracts the correct scaling information.
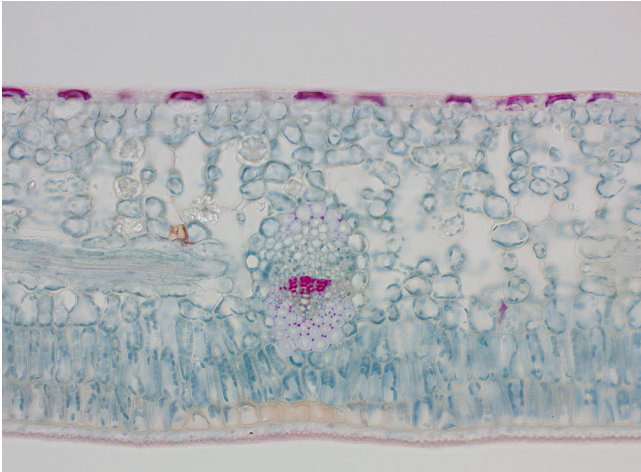
*Camellia leaf vascular bundle in brightfield, cross section.*
*Acquired with ZEISS Axiolab 5, objective: Plan-Apochromat 20×/0.8*

## Highlights

- Full 4K resolution in up to outstanding 30 fps
- Live image enhancement functions like sharpening, denoising and HDR
- Use in stand-alone mode, review and save all images on USB flash drive or use the imaging software Labscope or ZEN
- Easy and effortless digital documentation – especially suitable for education, digital classroom and routine documentation in life sciences
- Connections via USB, Ethernet, Wi-fi and HDMI
- Wi-Fi compatible – use Labscope imaging software to control your camera wirelessly
- Stand-alone operation with camera control by intuitive on-screen display (OSD) via mouse and keyboard without a PC

You can operate Axiocam 212 color via the **on-screen display (OSD)** without any additional PC or software required:

- Simply move the mouse over the live image to open the live view menu of the OSD. If you stop to move the mouse, the OSD will close after approx. 5 seconds.
- You can acquire images and record videos as well as multichannel fluorescence images.
- The automatic exposure setting mode ensures a consistent brightness of the image by continuously calculating the correct exposure time based on the current light intensity.
- You can add measurements, markers or text annotations to an image in live view.
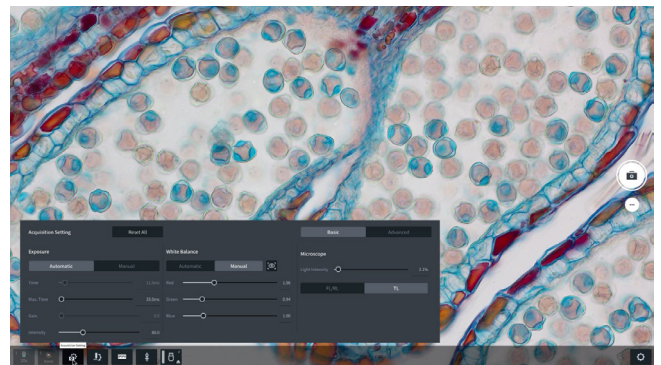


*Operate ZEISS Axiocam 212 color via the **on-screen display (OSD)** without any additional PC*

# Technical Data and Conformity

**Technical Data**

| | |
|---|---|
| Sensor type | CMOS sensor with rolling shutter |
| Sensor size | Diagonal 9.3 mm (1/1.7"), Full Sensor<br>Diagonal 8.2 mm (1/2.1"), Ultra HD and Full HD |
| Pixel count | 12.3 Megapixels: 4032 (H) × 3044 (V)<br>8.1 Megapixels: 3840 (H) × 2160 (V)<br>2.1 Megapixels: 1920 (H) × 1080 (V) |
| Pixel size | 1.85 µm × 1.85 µm (resolution 4032 × 3044 and 3840 × 2160)<br>3.70 µm × 3.70 µm (binned, resolution 1920 × 1080) |
| Digitization | 3 × 8 bit/pixel |
| Exposure Time Range (Integration time) | 0.1 ms – 1 s |
| Gain | 0× – 27× adjustable |
| Frame rate | Maximum live frame rate at configuration: |

| Full sensor (4032 × 3044) | @ 4K (3840 × 2160) | @ 1080p (1920 × 1080) |
|---|---|---|
| HDMI: – | HDMI: 30 fps | HDMI: 30 fps |
| Ethernet: – | Ethernet: – fps | Ethernet: 30 fps |
| USB 3.0: 11 fps | USB 3.0: 17 fps | USB 3.0: 30 fps |

| | |
|---|---|
| Cooling system | Passive cooling |
| Spectral sensitivity | Approx. 400 nm – 700 nm, IR filter<br>RGB Bayer color mask |
| Interface | 1× HDMI for monitor<br>1× USB 3.0 Type-C for flash drive, Wi-Fi adapter or PC connection<br>2× USB 2.0 Type-A for mouse and keyboard<br>1× RJ45 (Ethernet) for LAN connection<br>1× M8 for power and communication with dedicated stands |
| Wi-Fi compatibility | Via Wi-Fi adapter and router |
| Power supply | Via M8 interface |
| Operating system | for ZEN Imaging Software: Windows 10 and 11 x64 and higher<br>for Labscope: Windows 10 and 11 x64 and iOS v15 and higher, Android 12 and higher |
| Software | On Screen Display (OSD) for stand-alone operation<br>ZEN blue v3.11 and higher (includes ZEN lite/pro/system)<br>ZEN core v3.11 and higher (includes ZEN starter/core)<br>Labscope v4.3 (Win, iOS, and Android) and higher |
| Image enhancement functions | Active denoising, active sharpening, auto white balance |
| Automatic features | Automatic exposure and gain regulation at Ultra HD resolution (4K), fast live image under low light conditions |
| Order number | 426570-9901-000 |
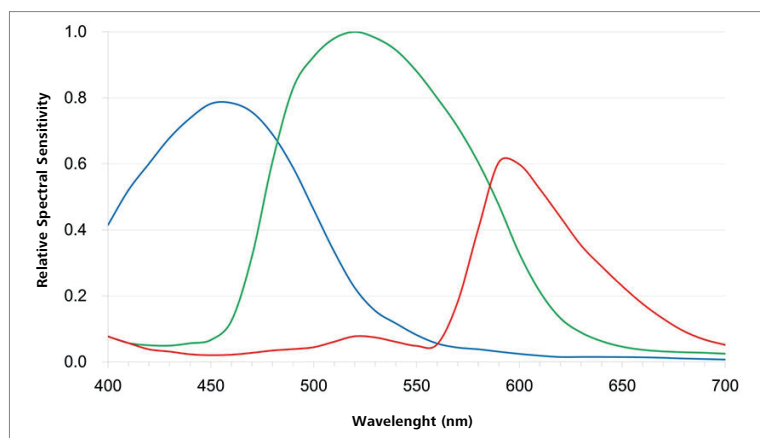


*Spectral Sensitivity of Axiocam 212 color (incl. IR Filter)*



CE
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Certified Quality System ISO 13485 ◆mdc

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