

8MPB 4K Microscope Camera

96-005

Professional 4K imaging for stereo zoom microscopes



The 8MPB is a professional 8-megapixel microscope camera designed for high-resolution imaging and inspection applications. At its heart is Sony's IMX585 back-illuminated CMOS sensor, providing excellent sensitivity, low noise, and outstanding image quality. With 3840×2160 4K resolution at up to 60 frames per second, it produces exceptionally smooth live images while maintaining the fine detail required for inspection work.

Designed for Stereo Zoom Microscopes

The camera is particularly well suited to stereo zoom microscope systems. Paired with a 0.5X C-mount video coupler, it provides a wide field of view while taking advantage of the camera's large 1/1.2" sensor. That makes it an excellent choice where both overall viewing area and fine detail matter — electronics inspection, precision assembly, manufacturing inspection, and general laboratory work.

Multiple Video Outputs

- HDMI 2.0 — direct connection to a 4K monitor
- USB 3.0 — computer connectivity and image capture
- Network / LAN — network-based image transmission and control
- Wi-Fi capability — wireless connectivity for supported applications

The HDMI output allows the camera to be used as a stand-alone microscope imaging system, eliminating the need for a computer when viewing specimens on a 4K monitor.

Sony IMX585 Sensor

The IMX585's 1/1.2" sensor and relatively large $2.9 \mu\text{m}$ pixels provide excellent light-gathering capability — especially beneficial in microscope applications where maintaining a bright, clean image is important. The result is a highly responsive live image with excellent colour reproduction, detail, and low-light performance.

Recommended Configuration

For stereo zoom microscope applications we recommend pairing the 8MPB with a 0.5X C-mount video coupler (96-001). This combination provides a wide viewing area while maintaining the high-resolution imaging capability of the 4K camera — a powerful, versatile solution for professional stereo microscope inspection and documentation.

KEY SPECIFICATIONS

FEATURE	SPECIFICATION
Sensor	Sony IMX585 CMOS
Sensor size	1/1.2"
Resolution	8 megapixels
Maximum resolution	3840 × 2160 (4K)
Frame rate	Up to 60 fps
Pixel size	2.9 μm
Mount	C-mount
HDMI	HDMI 2.0
USB	USB 3.0
Network	LAN / Ethernet
Application	Stereo zoom microscopes & inspection

Software — Image & Video Capture

The included camera software provides straightforward tools for viewing, capturing, and making basic measurements from microscope images. You can:

- Capture still microscope images
- Record video
- Save images in JPEG, TIFF, PNG, or RAW formats
- Review saved images and videos
- Freeze the live image
- Adjust brightness, contrast, colour, gamma, sharpness, and other basic settings

Images and video can also be saved directly to an SD card or USB flash drive when the camera is used independently of a computer.

Basic Measurement

The software includes a selection of basic measurement tools:

- Point-to-point distance
- Horizontal and vertical measurements
- Angles, lines, rectangles, circles, ellipses, arcs, and polygons
- Area-related measurements

Measurements require calibration against a known reference such as a stage micrometer. Once calibrated, they can be shown on the live image and exported as a CSV file.

On a continuous-zoom stereo microscope, calibration can be set up for each magnification. Match the calibration to the magnification set on the microscope.

Windows & Mac Compatibility

The camera connects directly to a computer over USB 3.0. The manufacturer provides ToupView for Windows and ToupLite for macOS. Supported platforms include macOS 10.10 and later, Windows versions through Windows 11, and Linux.

No Computer Required

A computer is not required for basic operation. Connect the camera directly to a 4K HDMI monitor and plug in the supplied USB mouse. The camera's built-in XCamView software then provides controls for viewing, image capture, recording, image adjustment, and measurement.

This makes it possible to run the microscope as a simple standalone inspection system without a PC or Mac.

Additional Image Tools

The software also includes image comparison, basic image adjustments, focus stacking / EDF, and image stitching. These features are available, though the primary purpose of the software is straightforward microscope viewing, capture, and basic measurement rather than advanced image analysis.

ORDERING

Order part number 96-005. The 8MPB requires a trinocular zoom pod (91-001-TR) and a C-mount video coupler (96-001). Configure a complete system, or request this item on its own, using the Build a Quote configurator at m2associates.com/build-a-quote.