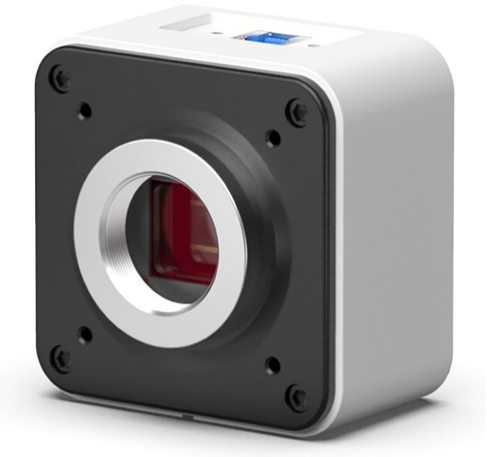
MIchrome 20 Color Microscope Camera, 20 MP, 1-inch Sensor, USB 3.0

Model MIchrome 20 · waveqvanta.com/products/michrome-20-microscope-camera

A 20 MP color microscope camera with a 1-inch sensor for detailed brightfield and fluorescence imaging.



The MIchrome 20 uses a 20 MP (5472 × 3648) Sony color CMOS sensor with a 15.86 mm diagonal, large enough to cover the most uniform central region of the microscope image plane. It records full-resolution frames at 14.5 fps over USB 3.0, and live stitching and live extended depth of field (EDF) are built into the software.

Key features

- 1-inch sensor (15.86 mm diagonal) with 5472 × 3648 pixels of 2.4 µm
- 14.5 fps at full resolution; 53.1 fps at 2736 × 1824 and 67.3 fps at 1824 × 1216
- Live stitching builds large panoramic images within seconds while the stage is moved
- Live EDF merges different focal planes into one extended-depth-of-field image as the focus is turned
- Color temperature adjustable from 2000 to 15000 K; images saved as TIF, JPG, PNG or DICOM
- Up to four cameras can run at the same time through the SDK (C, C++, C#, DirectShow, TWAIN)
- Exposure from 18 µs to 15 s; 2 × 2, 3 × 3 and 4 × 4 binning

Specifications

Sensor Type	Sony CMOS
Color / Mono	Color
Resolution	5472 × 3648 (20 MP)
Pixel Size	2.4 µm × 2.4 µm
Effective Area	13.1 mm × 8.8 mm
Array Diagonal	15.86 mm (1")
Frame Rate	14.5 fps @ 5472 × 3648; 53.1 fps @ 2736 × 1824; 67.3 fps @ 1824 × 1216
Shutter Type	Rolling
Exposure Time	18 µs – 15 s
Binning	2 × 2, 3 × 3, 4 × 4
Bit Depth	8-bit, 16-bit
Color Temperature	2000–15000 K
Data Interface	USB 3.0
Optical Interface	C-mount
Power Consumption	3 W
Dimensions	68 mm (H) × 68 mm (W) × 46 mm (L)
Weight	330 g
Operating Environment	Operating −10 to 45 °C, 10–85% RH
Image Format	TIF, JPG, PNG, DICOM
Multi-Camera	Up to 4 cameras simultaneously via SDK

Software / SDK Support	Acquisition and analysis software; SDK: C, C++, C#, DirectShow, TWAIN
Operating System	Windows 10/11 (64-bit), Mac
PC Requirements	Intel Core i5 quad-core or higher, 8 GB RAM or more

Typical applications

- Fluorescence microscopy (e.g. BPAE cells)
- Biological brightfield microscopy with live stitching
- Stereo microscopy with live EDF (e.g. insects)
- Polarized-light and metallographic microscopy (e.g. rock thin sections)