HD Lite HDMI Color Microscope Camera, 5 MP, USB 2.0 and SD Card

Model HD Lite · waveqvanta.com/products/hd-lite-microscope-camera

Standalone 5 MP color camera that previews, captures and records over HDMI without a computer.



The HD Lite is a compact color microscope camera that can be used with or without a PC. Connected to an HDMI monitor, it previews and captures 2592 × 1944 images to an SD card using its embedded software; over USB 2.0 it works with the acquisition and analysis software on Windows or Mac. Automatic adjustment of white balance, exposure and saturation reduces setup time for brightfield, darkfield and polarized-light work.

Key features

- Sony IMX335LQN-C color CMOS sensor, 2592 × 1944 (5 MP), 2.0 µm pixels, 1/2.8-inch (6.54 mm) format
- Works without a computer: HDMI output with embedded software and image capture to an SD card (FAT32)
- USB 2.0 connection for PC use with the acquisition and analysis software; up to 4 cameras via the SDK
- 15 fps over both HDMI and USB 2.0; video recording at 15 fps in 1080p
- Automatic optimization of white balance, exposure and saturation; color temperature range 1800–10000 K
- Compact 90.7 × 74 × 67.2 mm body, 265 g, 2.4 W, standard C-mount

Specifications

Sensor Type	CMOS
Sensor	Sony IMX335LQN-C
Color / Mono	Color
Resolution	2592 × 1944 (5 MP), preview and capture
Pixel Size	2.0 × 2.0 µm
Effective Area	5.1 × 3.8 mm
Array Diagonal	6.54 mm (1/2.8")
Frame Rate	15 fps (HDMI), 15 fps (USB 2.0)
Video Recording	15 fps @ 1080p
Shutter Type	Rolling
Exposure Time	1 ms – 2 s
Color Temperature	1800–10000 K
Data Interface	HDMI, USB 2.0, SD card
Optical Interface	C-mount
Power Consumption	2.4 W
Dimensions	90.7 × 74 × 67.2 mm (H × W × L)
Weight	265 g
Operating Environment	-10–45 °C, 10–85% RH
Image Format	HDMI: JPG, TIF; PC: TIF, JPG, PNG, DICOM

SD Card Format	FAT32
Multi-Camera	Up to 4 cameras simultaneously (via SDK)
Operating System	Windows 10 (64-bit), Mac
PC Requirements	Intel Core i5 quad-core or higher; 8 GB RAM or more
Software / SDK Support	HDMI: embedded software; PC: acquisition and analysis software

Typical applications

- Biological microscopy of tissue sections and arthropod specimens
- Stereo microscopy
- Metallographic microscopy
- Polarizing microscopy
- Darkfield imaging of birefringent crystals