

INTRODUCTION

ACUCAL Microscopy cameras are particularly remarkable for their fast live images, short reaction times, high resolution and clear contrast. And they are compatible with almost all microscopes. Our product range covers digital Microscope Cameras with intuitive software for archiving, measurement, analysis and presentation. 100% reproducibility of the exposures and highly convenient remote control of the cameras and ensure a fast and economical workflow.



- ACUCAM-4K HDMI camera is a multiple interfaces (4K HDMI+USB+SD card+FLASH DRIVE) camera and it adopts ultra-high performance sensor as the image-picking device. USB is used as the data transfer interface.
- For 4K HDMI output, a camera control panel and toolbar are overlaid on the HDMI screen, in this case, the USB mouse can be used to set the camera, browse and compare the captured image.
- For USB output, unplug the mouse and plug in the USB cable into your PC USB, then the video stream can be transferred to the computer with the supplied software.

FEATURES

- All in 1(4K HDMI+USB +SD) C-mount camera with high sensitivity Sony sensor.
- Support image capture(JPEG, BMP, TIFF, PNG, PCX, TGA, GIF,TFT, DICOM) & Video Recording(AVI, MOV).
- Simultaneous 4K HDMI & USB output.
- Built-in mouse control.
- Built-in color image capture & video record to SD card or USB Flash Drive & viewing gallery of images & videos.
- Built-in camera control panel for mouse control on Screen Display for fine tuning camera settings.
- Interfaced to a computer via USB technology for rapid image download.
- ULTRA HDMI resolution (stand-alone) capable to capture display image on large screen Image acquisition & Video acquisition via mouse and keyboard without PC.
- Plug-to-use, suitable for imaging of any standard Biological, Stereo and Metallurgical microscopes for observations, such as bright field, DIC, phase contrast and fluorescence.
- Integrated zinc aluminum alloy housing & passive cooling system.
- Ultra-Fine color engine with perfect color reproduction capability;
- With advanced video & image processing application Software.
- Compatible with all makes of microscopes.

FIELDS OF APPLICATION

Materialography
Quality Control
Pathology

Inspection Industry
Geology
Forensic

Patrography
Mineralogy
Cell Biology

INTERFACE & BUTTON FUNCTIONS

Interface	Function Description
USB (for PC)	1. Connect USB flash drive to save pictures and videos. 2. Connect computer with USB connection to transfer Photo/video in real time.
HDMI (for Monitor without need of PC)	Comply with HDMI2.0 standard. 4K/1080P format video output and supporting automatic switch between 4K and 1080P format according to the connected monitors.
USB Mouse	Connect USB mouse for easy operation with embedded software.
SD	Comply with SDIO3.0 standard and SD card could be inserted for video and images saving.
DC12V	Power adapter connection (12V/1A).
ON/OFF	Power switch.
LED	LED status indicator.

SPECIFICATION

- **Image Sensor:** 1/1.8" Single Plate type SONY Color CCD (7.680 mm × 4.320 mm), 8 Mega pixels
- **Live Frame Rate & Resolutions:** 30fps @3840*2160(HDMI, USB) **4K ULTRA HD**
30fps @1920*1080(HDMI, USB) **FULL HD**
- **Pixel Size:** 2.0 μm x 2.0 μm
- **Sensitivity:** 505 mv with 1/30s
- **Scan Mode:** Progressive Scan
- **Operating Temperature :** 0° C to + 50° C
- **Operating Humidity:** 30%-80%, Non-condensing
- **Exposure Time:** 0.04 ms to 30s
- **Exposure Control :**Automatic / Manual
- **White Balance:** Automatic / Manual
- **Shutter:** Electronic Rolling
- **Quantum Efficiency** ≥ 65% at 500nm
- **Digitization Bit Depth :** 12 bit
- **ISO sensitivity :** ISO 50 to ISO 3200
- **Digital Binning:** 1x1

Other Specification

- Camera Control Panel : Including Exposure, Gain, Gamma, Saturation, Contrast, White Balance Auto/Manual, Color Adjustment, Sharpness and Denoising Control
- Toolbar : Including Zoom, Mirror, Comparison, Freeze, Cross, Browser Function
- White Balance : Manual / Auto White Balance
- Color Technique : Ultra-Fine Color Engine
- Recording System : Still Picture or Movie

Standard Supply

- HDMI Cable, USB Cable, Power Adopter, Software CD