

# PROMICAM 3-3CP

3.1 Mpx color USB 3.0 digital camera with 2<sup>nd</sup> generation of SONY® PREGIUS CMOS sensor with global shutter represents a viable alternative to CCD cameras for excellent price.



## New Generation of CMOS Sensor Exceeds CCD Technology

PROMICAM 3-3CP USB 3.0 camera represents a viable alternative to CCD cameras. Used 2<sup>nd</sup> generation of SONY® PREGIUS CMOS sensor exceeds CCD technology in several parameters.

## High Image Quality and Excellent Color Reproduction

Sensor with 1/1.8" diagonal provides high image quality and excellent color reproduction.

## Global Shutter

The sensor uses global shutter, which enables observation of fast moving objects without image distortion.

## High Live View Frame Rates Suitable for "Live Imaging" Applications

Modern USB 3.0 interface provides high live view frame rates, while CPU load remains low. Live view in full 3.1 Mpx resolution can be displayed with frame rate up to 36 fps, which exceeds maximal frame rate of 3 Mpx CCD cameras. Live view in Full HD (1920 x 1080 - using ROI feature) can be displayed with frame rate up to 51 fps.

## High Sensitivity, High Dynamic Range and Low Noise Level

The used 2<sup>nd</sup> generation of SONY® PREGIUS CMOS sensor brings high sensitivity comparable to sensitivity of common CCD sensors. The values of dynamic range and noise level exceed the values of common CCD sensors.

## Support in QuickPHOTO Programs

QuickPHOTO programs for digital photomicrography provide full control of camera's features, e. g.: live view display, manual and automatic exposure, white balance, black balance, gain, gamma, hue, shading correction, measurements in a live view and many more.

## Main Features:

- 2<sup>nd</sup> generation of SONY® PREGIUS CMOS sensor with 1/1.8" diagonal
- 3.1 Mpx sensor resolution
- High image quality
- Excellent color reproduction
- Exposure time up to 12 s
- Global shutter
- High sensitivity, high dynamic range, low noise level
- Live view frame rate up to 36 fps in full 3.1 Mpx resolution
- USB 3.0 interface
- Supported by QuickPHOTO programs

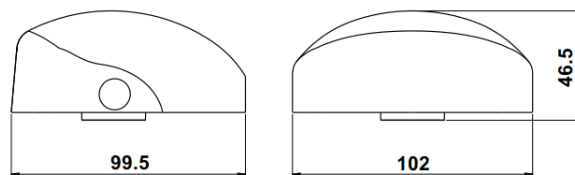
## Suitable for Applications:

- Brightfield/Darkfield
- DIC
- Biology/Live Cell Imaging
- Moderate Light Fluorescence
- Gel Documentation
- Histology/Pathology/Cytology
- Metrology/Mineralogy/Metallurgy/Geology
- Quality Control/Semiconductor Inspection
- Documentation and Archiving
- Education

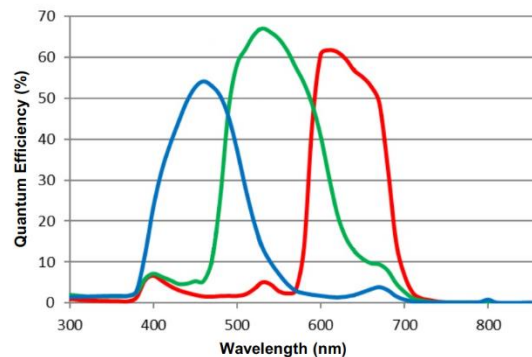


Sensor Specifications	
Sensor Type	Sony® PREGIUS CMOS 2 <sup>nd</sup> generation with global shutter, color
Sensor Size	1/1.8"
Pixel Size	3.45 x 3.45 μm
Resolution	2048 x 1536 pixels (3.1 Mpx)
Camera Specification (when used with QuickPHOTO programs)	
Image Resolution	2048 x 1536, 1920 x 1080 (Full HD), 1024 x 768 pixels
Live View Resolution@Max. Frame Rate (fps)	2048 x 1536@36 fps 1920 x 1080 (Full HD - ROI)@51 fps 1024 x 768 (binning)@36 fps
Lower Resolutions	Binning 2x2, ROI
Exposure Times	1/58 000 (17 μs) – 12 s
Gain	1 – 251x
Exposure Mode	Automatic, automatic-interactive, fluorescence (SFL Auto), manual
White Balance	Automatic, automatic-regional, manual
Black Balance	Automatic-regional, manual
Camera Characteristics	
Dynamic Range	71.38 dB
Saturation Capacity	10080 e-
Quantum Efficiency (green color 525 nm)	66 %
Read Noise	2.22 e-
Max. Signal to Noise Ratio	40.04 dB
Interface	USB 3.0 SUPERSPEED 5 Gbit/s (backwards compatible with USB 2.0)
Mount	C-mount
Dimensions	102 x 99.5 x 46.5 mm
Weight	280 g
Minimal System Requirements	
Processor	Intel® Core i3
RAM	2 GB
Slot for USB 3.0 Interface Card	1x PCI EXPRESS 2.0 for desktop computers or 1x ExpressCard for laptops
Operating System	Microsoft® Windows® 7/8/8.1/10 (32bit or 64bit)
Recommended Computer Configuration	
Processor	Intel® Core i5 or better
RAM	4 GB
Slot for USB 3.0 Interface Card	1x PCI EXPRESS 2.0 for desktop computers or 1x ExpressCard for laptops
Operating System	Microsoft® Windows® 7/8/8.1/10 (64bit)

## Dimensions (mm):



## Quantum Efficiency:



## Sample Images:

