CAMERA SCOP-CAMTOP4K SERIES

- Sony Exmor/STARVIS back-illuminated CMOS sensor;
- 4K HDMI/ NETWORK/ USB multiple video outputs
- 4K/1080P auto switching according to monitor resolution
- SD card/USB flash drive for captured image and video storage, support local preview and playback
- Embedded XCamView for the control of the camera and image processing
- Excellent ISP with local tone mapping and 3D denoising
- Software for PC
- iOS/Android applications for smart phones or tablets
- Windows/Linux/macOS/Android

SCOP-CAMTOP4K Series HDMI/NETWORK/USB Multi-outputs C-mount CMOS Camera

The CAMTOP4K series camera is the next-generation live-view imaging-system with 4K resolution(Video) at 30 FPS. It comes with Sony Exmor CMOS sensor with high sensitivity, low dark current and no smear achieved through the adoption of R, G and B primary color mosaic filters.

The camera uses a standard C-mount interface for maximum compatibility with various microscopy-systems. It can be used as a stand-alone recorder when used with an HDMI monitor or television, or live-streamed to a PC via NETWORK/USB for image-capture and video-recording.

Hardware 3D denoising, sharpness and tone mapping control functions greatly improve the image and video quality.

The included Windows software offers image-development and measurement tools, as well as advanced compositing features such as image-stitching and extended-depth-of-focus. With the ability to calibrate scales at multiple magnifications, the software can be used for multi-level inspection. For Mac and Linux, there is a lite version of the software which can capture video and still images, and includes limited processing features.

The CAMTOP4K 4K series camera is intended to be used for the acquisition of digital images from the stereo microscope, biological microscope or online interactive teaching. The HDMI SCOP-CAMTOP4K series camera is intended to be used for the acquisition of digital images from the stereo microscope, biological microscope or online interactive teaching.

Order Code	Sensor & Size(mm)	Pixel(μm)	G Sensitivity Dark Signal	FPS/Resolution	Binning	Exposure
SCOPCAMTOP4K-8MPXA	4K/Sony IMX334(C) 1/1.8"(7.68x4.32)	2.0x2.0	505 mv with 1/30s 0.13 mv with 1/30s	30@3840x2160(HDMI) 30@3840x21600(NETWORK) 30@3840x2160(USB)	1x1	0.04ms~1000ms
SCOPCAMTOP4K-8MPXB	Sony IMX485(C) 1/1.2"(11.14x6.26)	2.9x2.9	2188mv with 1/30s 0.39mv with 1/30s	30@3840*2160(HDMI) 30@3840*2160(NETWORK) 30@3840*2160(USB)	1x1	0.04ms~1000ms

Interface & Button functions :

USB Mouse	Connect USB mouse for easy operation with embedded XCamView software
USB2.0	Connect USB flash drive to save pictures and videos Connect 5G WLAN module to transfer video wirelessly in real time
USB VIDEO	Connect PC or other host device to realize video image transmission
HDMI	Comply with HDMI1.4 standard. 4K/1080P format video output and supporting automatic switch between 4K and 1080P format according to the connected monitors
LAN	LAN port to connect router and switch to transfer video
SD	Comply with SDIO3.0 standard and SD card could be inserted for video and images saving
ON/OFF	Power Switch
LED	Led status indicator
DC12V	Power adapter connection (12V/1A)

Video Output Interface	
HDMI INTERFACE	Comply with HDMI1.4 standard 30fps@4K or 30fps@1080P
LAN INTERFACE	support real time resolution switching(4K/1080P/720P) H264 encoded video DHCP configuration or manual configuration Unicast/multicast configuration
WLAN INTERFACE	Connecting 5G WLAN adapter (USB2.0 slot) in AP/STA mode
USB VIDEO INTERFACE	Connecting USB Video port of PC for video transfer MJPEG format video
Other Function	
Video saving	Video format : 8M(3840*2160) H264/H265 encoded MP4 file Video saving frame rate:30fps
Image Capture	8M (3840*2160) JPEG/TIFF image in SD card or USB flash drive
Measurement Saving	Measurement information saved in different layer with image content Measurement information is saved together with image content in burn in mode
ISP	Exposure(Automatic / Manual Exposure) / Gain, White Balance(Manual / Automatic / ROI Mode), Sharpening, 3D Denoise, Saturation Adjustment, Contrast Adjustment , Brightness Adjustment, Gamma Adjustment, Color to Gray, 50HZ/60HZ Anti-flicker Function
Image Operation	Zoom In/Zoom Out(Up to 10X), Mirror/Flip, Freeze, Cross Line, Compare(Comparison between real time video and images in SD card or USB flash drive), Embedded Files Browser, Video Playback, Measurement Function
Embedded RTC (optional)	To support accurate time on board
Restore Factory Settings	Restore camera parameters to its factory status
Multiple Language support	English / Simplified Chinese / Traditional Chinese / Korean / Thailand / French / German / Japanese / Italian / Russian
Operating Environment	
Operating Temperature (in Centidegree)	-10°~ 50°
Storage Temperature (in Centidegree)	-20°~ 60°
Operating Humidity	30~80%RH
Storage Humidity	10~60%RH
Power Supply	DC 12V/1A Adapter

Software Environment under LAN/WLAN/USB Video ouptput	
White Balance	Auto White Balance
Color Technique	Ultra-Fine Color Engine
Capture/Control SDK	Windows/Linux/macOS/Android Multiple Platform SDK(Native C/C++, C#/VB.NET, Python, Java, DirectShow, Twain, etc)
Recording System	Still Picture or Movie
Operating System	Microsoft® Windows® XP / Vista / 7 / 8 / 8.1 /10(32 & 64 bit) OSx(Mac OS X) Linux
PC Requirements	CPU: Equal to Intel Core2 2.8GHz or Higher Memory: 4GB or More Ethernet Port: RJ45 Ethernet Port Display:19" or Larger CD-ROM

Potiential Application :

- Scientific research, education (teaching, demonstration and academic exchanges);
- Digital laboratory, medical research;
- Industrial visual (PCB examination, IC quality control);
- Medical treatment (pathological observation);
- Food (microbial colony observation and counting);
- Aerospace, military (high sophisticated weapons);

Dimensions :