MICAPS SPRO4KUHD8MPCA

C-mount USB 3.0 CMOS Cameras
SONY STARVIS 2 CMOS Sensor

The SPRO4KUHD8MPCA series Camera is designed for capturing digital images from stereo microscopes, biological microscopes, and for use in online interactive teaching. Here are its main features:

Features

- Sony STARVIS 2 back-illuminated CMOS sensor
- Rolling Shutter
- 4K HDMI/ NETWORK/ USB multiple video synchronous outputs
- 4K/1080P auto switching according to monitor resolution
- Support 4K 60fps low delay HDMI output mode, with an average delay of 40ms
- SD card/USB flash drive for captured image and video storage, support local preview and playback
- New browsing function, providing rich file operations, image to real-time video comparison
- Excellent ISP with local tone mapping and 3D denoising
- Provide real-time video EDF function and real-time video WDR output function
- Provide two sets of default ISP parameters for biological and stereo microscope
- iOS/Android applications for smart phones or tablets

Applications

- 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)

Model No.	Sensor & Size(mm)	Pixel(μm)	G Sensitivity Dark Signal	FPS/Resolution	Binning	Exposure
SPRO4KUHD8MPCA	Sony IMX678(C) 1/1.8"(7.68x4.32)	2.0x2.0	3541mv with 1/30s 0.15mv with 1/30s	60@3840*2160	1x1	0.019~1000

C: Color

Camera Model	Video Saving (FPS/Resolution)	HDMI2.0 (FPS/Resolution)	USB3.0 (FPS/Resolution)	NETWORK (FPS/Resolution)
SPRO4KUHD8MPCA	60@3840*2160 60@1920*1080	60@3840*2160 60@1920*1080	30@3840*2160 45@2688*1512 60@1920*1080	30@3840*2160 60@1920*1080 60@1280*720

Interface or Button	Function Description
USB 3.0	Connect USB flash drive to save pictures and videos
	Connect 5G WiFi module to transfer video wirelessly in real time
	Connect USB microphone for audio and video recording
HDMI	Comply with HDMI2.0 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	SD card, 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)
USB Mouse	Connect USB mouse for easy operation with embedded software
USB Video	Connect PC or other host device to realize video image transmission

Video Output Interface	Function Description
HDMI Interface	Comply with HDMI2.0 standard
	60fps@4K or 60fps@1080P
LAN Interface	support real time resolution switching(4K/1080P/720P)
	H264 encoded video
	DHCP configuration or manual configuration
	Unicast/multicast configuration
WiFi Interface	Connecting 5G WLAN adapter (USB3.0 slot) in AP/STA mode
USB Video Interface	Connecting USB Video port of PC for video transfer
	H264/MJPEG format video

Other Function	Function Description
Video Saving	Video format:8M(3840*2160) H264/H265 encoded MP4 file Video saving frame rate:60fps)
Image Capture	8M (3840*2160 JPEG/TIFF image in SD card or USB flash Drive (Default SD card priority, priority can be modified in settings)
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, Hue Adjustment, Color to Gray, 50HZ/60HZ Anti-flicker Function
Image Operation	Zoom In/Zoom Out(Up to 10X), Mirror/Flip, Freeze, Cross Line, EDF, Overlay, PIP, Browser (including picture browsing, Video Playback, Video compare, Picture Compare, EDF, Image Processing)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 / Spanish /Japanese / Italian / Russian / Dutch / Portuguese

Software Environment under LAN/WLAN/USB Video Output	
White Balance	Auto White Balance
Color Technique	Super-Fine Color Engine
Capture/Control SDK	Windows/Linux/macOS/Android Multiple Platform SDK (Native C/C++, C#/VB.NET, Python, Java, DirectShow, wain, etc)
Recording System	Still Picture or Movie
Operating System	Support Microsoft Windows XP / Vista / 7 /8 /10 (32 & 64 bit)OS X (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

Operating Environment	
Operating Temperature	-10 °C~ 50 °C
Storage Temperature	-20 °C~ 60 °C
Operating Humidity	30~80%RH
Storage Humidity	10~60%RH
Power Supply	DC 12V/1A Adapter

LABLINK INSTRUMENTS

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