# CAMERA SCOP-X7CAM4K SERIES

- Sony STARVIS 2 back-illuminated CMOS sensor
- 4K HDMI/ NETWORK/ USB multiple video synchronous outputs
- 4K/1080P auto switching according to monitor resolution
- High frame rate output, supporting up to 4K 75fps
- 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
- Excellent ISP with local tone mapping and 3D denoising
- Provide two sets of default ISP parameters for biological and stereo microscope
- Embedded XCamView for the control of the camera control, image processing and measurements
- ToupView/ToupLite software for PC
- iOS/Android applications for smart phones or tablets

## X7CAM4K Series HDMI/NETWORK/USB Multi-outputs C-mount CMOS Camera

The X7CAM4K 4K 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 |
|---|---|---|---|---|
| SCOP-X7CAM4K8MPA | Sony IMX678(C) 1/1.8"(7.68x4.32) | 2.0x2.0 | 1364mv with 1/30s 0.1mv with 1/30s | 72@3840*2160 |
| SCOP-X7CAM4K8MPB | Sony IMX585(C) 1/1.2"(11.14x6.26) | 2.9x2.9 | 1028mv with 1/30s 0.39mv with 1/30s | 75@3840*2160 |
| SCOP-X7CAM4K16MPA | Sony IMX283(C) 1/1.1"(13.06x7.34) | 2.4x2.4 | 1874mv with 1/30s 0.84mv with 1/30s | 30@5440*3060 |

| Order Code | VIDEO (Fps/Resolution) | HDMI 2.0 (Fps/Resolution) | USB 3.0 (FPS/Resolution) | NETWORK (FPS/Resolution) |
|---|---|---|---|---|
| SCOP-X7CAM4K8MPA | 72@3840*2160 | 60@3840*2160<br>60@1920*1080 | 30@3840*2160<br>45@2688*1512<br>60@1920*1080 | 30@3840*2160<br>60@1920*1080<br>72@1280*720 |
| SCOP-X7CAM4K8MPB | 75@3840*2160 | 60@3840*2160<br>60@1920*1080 | 30@3840*2160<br>45@2688*1512<br>60@1920*1080 | 30@3840*2160<br>60@1920*1080<br>75@1280*720 |
| SCOP-X7CAM4K16MPA | 30@3840*2160<br>30@1920*1080 | 30@3840*2160<br>30@1920*1080 | 20@5440*3060<br>30@2688*1512<br>30@1920*1080 | 30@3840*2160<br>30@1920*1080<br>30@1280*720 |



| Interface or Button | Function Description |
|---|---|
| USB Mouse | Connect USB mouse for easy operation with embedded XCamView software |
| USB3.0 | Connect USB flash drive to save pictures and videos |
| | Connect 5G WiFi module to transfer video wirelessly in real time |
| USB Video | Connect PC or other host device to realize video image transmission |
| 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 |
| S/D | 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 |
| DV12V | Power adapter connection (12V/1A) |

# Video Output Interface

| | |
|---|---|
| **HDMI INTERFACE** | Comply with HDMI2.0 standard |
| | 60fps@4K or 60fps@1080P(8MPA, 8MPB)<br>30fps@4K or 30fps@1080P (16MPA) |
| **LAN INTERFACE** | support real time resolution switching(4K/1080P/720P)<br>H264 encoded video<br>DHCP configuration or manual configuration<br>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<br>H264/MJPEG format video |

# Other Function

| | |
|---|---|
| **Video saving** | Video format : 8M (3840*2160) H264/H265 encoded MP4 file<br>Video saving frame rate:72fps (8MPA); 75fps (8MPB); 30fps (16MPA).<br>60fps in low delay mode (8MPA, 8MPB) |
| **Image Capture** | 8M (3840*2160, 8MPA, 8MPB) JPEG/TIFF image in SD card or USB flash drive<br>16M (5440*3060,16MPA) JPEG/TIFF image in SD card or USB flash drive<br>(Default SD card priority, priority can be modified in settings) |
| **Measurement Saving** | Measurement information saved in different layer with image content<br>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 |

## 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 :