



# MICAPS PRO4KUHD SERIES

C-mount USB3.0 CMOS Cameras  
SONY EXMOR CMOS Sensor



## PRO4KUHD Series HDMI/NETWORK/USB Multi-outputs C-mount CMOS Camera

The PRO4KUHD series Camera is a next-generation live-view imaging system with 4K resolution at 60 FPS. Equipped with a Sony Exmor CMOS sensor, it offers high sensitivity, low dark current, and no smear, thanks to the R, G, and B primary color mosaic filters. Featuring a standard C-mount interface, the camera ensures maximum compatibility with various microscopy systems. It can function as a stand-alone recorder with an HDMI monitor or TV or stream live to a PC via Gigabit Ethernet (LAN) for image capture and video recording.

### Features

- Sony EXMOR CMOS sensor
- 4K HDMI/ LAN/WLAN USB multiple video outputs
- Rolling Shutter
- 4K/1080P auto switching according to monitor resolution
- SD card/USB flash drive for captured image and video storage
- With strong ISP and other related processing functions
- iOS/Android applications for smart phones or tablets
- Windows/Linux/macOS/Android multiple platforms SDK

### 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<br>Dark Signal           | FPS/Resolution   | Binning | Exposure  |
|----------------|--|-----------|--|--|---------|-----------|
| PRO4KUHD8MPCA  | 4K/Sony IMX334(C)<br>1/1.8"(7.68x4.32) | 2.0x2.0   | 505mv with 1/30s<br>0.13mv with 1/30s  | 60@3840*2160(HDMI)<br>30@3840*2160(NETWORK)<br>30@3840*2160(USB) | 1x1     | 0.04~2000 |
| PRO4KUHD8MPCB  | Sony IMX485(C)<br>1/1.2"(11.14x6.26)   | 2.9x2.9   | 2188mv with 1/30s<br>0.39mv with 1/30s | 60@3840*2160(HDMI)<br>30@3840*2160(NETWORK)<br>30@3840*2160(USB) | 1x1     | 0.04~2000 |
| PRO4KUHD16MPCA | Sony IMX183(C)<br>1/1.06"(13.06x7.34)  | 2.4 x2.4  | 461mv with 1/30s<br>0.21mv with 1/30s  | 30@3840*2160(HDMI)<br>30@3840*2160(NETWORK)<br>15@5440*3060(USB) | 1x1     | 0.04~2000 |

| Interface or Button | Function Description   |
|---------------------|--|
| USB Mouse           | Connect USB mouse for easy operation with embedded PROView software  |
| USB3.0              | Connect USB flash drive to save pictures and videos (Host Mode)  |
|                     | Connect 5G WiFi module to transfer video wirelessly in real time(AP/STA, Host Mode)  |
|                     | Connect computer with USB connection to transfer video in real time(Device Mode)   |
| 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)  |

| Video Output Interface | Function Description   |
|------------------------|--|
| HDMI Interface         | Comply with HDMI2.0 standard   |
|                        | 60fps@4K or 60fps@1080P(PRO4KUHD8MPCA, PRO4KUHD8MPCB)<br>30fps@4K or 30fps@1080P(PRO4KUHD16MPCA)   |
| LAN Interface          | 30ps@4K resolution, support real time resolution switching<br>H264 encoded video<br>Bandwidth adjustment in real time<br>DHCP configuration or manual configuration<br>Unicast/multicast configuration |
| WiFi Interface         | Connecting 5G WLAN adapter (USB3.0 slot) in AP/STA mode  |
| USB 3.0 Slot           | Connecting USB Video port of PC for video transfer(Device Mode);MJPEG format video   |

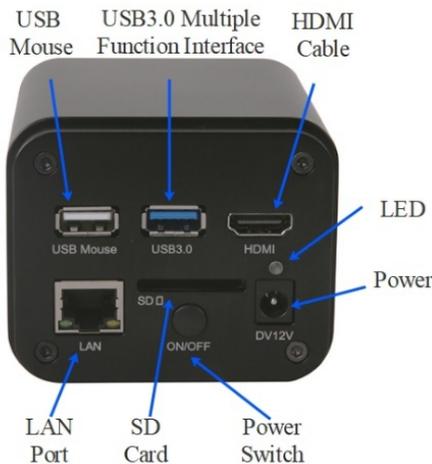
| Other Function            | Function Description   |
|---------------------------|--|
| Video Saving              | Video format:8M(3840*2160) H264 encoded MP4 file<br>Video saving frame rate: 50~260fps(PRO4KUHD8MPCA, PRO4KUHD8MPCB) .(related with SD card and video resolution); 26~30fps(PRO4KUHD16MPCA)(related with SD card and video resolution)                 |
| Image Capture             | 8M (3840*2160, PRO4KUHD8MPCA, PRO4KUHD8MPCB) JPEG/TIFF image in SD card or USB flash Drive;<br>16M (3840*2160, PRO4KUHD16MPCA) JPEG/TIFF image in SD card or USB flash drive   |
| 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 realtime 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 / Spanish /Japanese / Italian / Russian / Dutch / Portuguese  |

### 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 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, Twain, etc) |
| Recording System    | Still Picture or Movie   |
| Operating System    | Microsoft® Windows® XP / Vista / 7 / 8 / 8.1 / 10 / 11(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   |



### LABLINK INSTRUMENTS

- Plot no. 337, Sector 2, HSIIDC Saha, Saha, Ambala (Haryana) India - 133104.
- Plot no 3-6-164/2, 2nd Street, Hyderguda Himayatnagar, Hyderabad (Telangana )India - 500029

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