



# MICAPS HPS3CMOS5000CA

C-mount USB 3.0 CMOS Cameras  
SONY PREGIUS CMOS Sensor



The HPS3CMOS5000CA camera uses a high-quality SONY PREGIUS CMOS sensor to capture images, and it employs USB 3.0 for fast data transfer. With a hardware resolution of 5 megapixels, it's housed in a durable CNC aluminum alloy casing. Equipped with a 12-bit Super-fine Hardware Image Signal Processor Video Pipeline (Super-Fine™ HISPVP), the HPS3CMOS5000CA handles tasks like Demosaic, Adjustments, Automatic Exposure, Gain Adjustment, One Push WhiteBalance, Chrominance Adjustment, Saturation Adjustment, Gamma Correction, Luminance Adjustment, and Contrast Adjustment. It processes Bayer data and produces RAW data for 8/12 bit output. This offloads heavy processing tasks from the PC to the Super-Fine™ HISPVP, significantly boosting processing speed. The camera comes bundled with the advanced Micaps MicroView video and image processing application. It supports multiple platforms such as Windows, Linux, macOS, and Android, with SDKs available for Native C/C++, C#/VB.NET, Python, Java, DirectShow, Twain, and more. The HPS3CMOS5000CA is well-suited for use in bright field light environments and excels in microscope image capture and analysis, offering a higher frame rate for superior performance.

## Features

- SONY PREGIUS CMOS sensor with USB 3.0 interface
- Ultra low noise and low power dissipation
- Global Shutter
- Standard C-Mount camera
- With advanced video & image processing application Micaps MicroView
- Ultra-fine Color hardware Color Engine ensuring high frame rates

## 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  |
|----------------|---------------------------------------|-----------|----------------------------------------|------------------------------|------------|-----------|
| HPS3CMOS5000CA | 5.0M/IMX264(C,GS)<br>2/3" (8.45x7.07) | 3.45x3.45 | 1146mv with 1/30s<br>0.15mv with 1/30s | 35@2448x2048<br>50@1224x1024 | 1x1<br>1x1 | 0.1ms~15s |

C: Color, GS: Global Shutter

### Other Hardware Configuration

|                           |                                                                                                                   |
|---------------------------|-------------------------------------------------------------------------------------------------------------------|
| Spectral Range            | 380-650nm (with IR-filter), for Monochromatic Camera, AR Is Used                                                  |
| White Balance             | ROI White Balance/ Manual Temp-Tint Adjustment                                                                    |
| Color Rendering Technique | Super Fine Color Engine                                                                                           |
| Capture/Control SDK       | Windows/Linux/macOS/Android Multiple Platform SDK (Native C/C++, C#/VB.NET, Python, Java, irectShow, Twain, etc); |
| ADC                       | 8 Bit / 12 Bit                                                                                                    |
| Recording System          | Still Picture and Movie                                                                                           |
| Cooling System*           | Natural                                                                                                           |

### Software Environment

|                  |                                                                                        |
|------------------|----------------------------------------------------------------------------------------|
| 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: 2GB or More                                                                    |
|                  | USB port: USB2.0 High-speed Port                                                       |
|                  | Display: 17" 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 5V over PC USB Port |



## LABLINK INSTRUMENTS

- Plot no. 435, 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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