MICAPS
HPS3CMOS45000CB

C-mount USB 3.0 CMOS Cameras
SONY PREGIUS CMOS Sensor

The HPS3CMOS45000CB 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 45 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 TM HISPVP), the HPS3CMOS45000CB 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-FineTM 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 HPS3CMOS45000CB 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
- Super high sensitivity up to 2350mV(IMX385)
- Ultra low noise and low power dissipation
- Rolling Shutter
- Standard C-Mount camera
- With advanced video & image processing application Micaps MicroView
- Ultra-fine Color hardware Color Engine ensuring high frame rates
- (Up to 15 frames for 20M Resolution)

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
HPS3CMOS4500CB	45M/IMX492[C] 1.4" (18.93x13.00)	2.315x2.315	108mv with 1/30s 0.03mv with 1/30s	8.1@8176x5616[C] 30.0@4080x2808[M] 8.1@7408x5556[C] 33.0@3696x2778[M] 10.4@8176x4320[C] 34.7@4096x2160[M] 62.5@2048x1080[M] 86.5@1344x720[M]	1x1(3:2) 2x2(3:2) 1x1(4:3) 2x2(4:3) 1x1(17:9) 2x2(17:9) 3x3(17:9) 4x4(17:9)	0.1ms~15s

C: Color

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