MICAPS
HPSFL3CMOS SERIES

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

The HPSFL3CMOS Series camera uses a high-quality SONY CMOS sensor to capture images, and it employs USB3.0 for fast data transfer. With a hardware resolution of 2.1 to 12 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-FineTM HISPVP), the HPSFL3CMOS Series 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 HPSFL3CMOS Series 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 CMOS sensor with USB3.0 interface
- Ultra low noise and low power dissipation
- Global Shutter
- Standard C-Mount camera
- With advanced video & image processing application Micaps MicroView
- Super-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
HPSFL3CMOS12000CC	12M/IMX676[C] 1/1.6"(7.07x7.07)	2.0x2.0	3637mv with 12 bit converted value (HCG) 0.15mv with 1/30s	27@3536x3536 60@1768x1768	1x1 2x2	0.013ms~15s
HPSFL3CMOS8300CD	8.3M/IMX585[C] 1/1.2"(11.14x6.26)	2.9x2.9	5970(mV/lx/s) 0.13mv with 1/30s	45@3840x2160 70@1920x1080	1x1 2x2	0.02ms~15s
HPSFL3CMOS2100CA	2.1M/IMX482[C] 1/1.2"(11.14x6.26)	5.8x5.8	8935mv with 1/30s 0.6mv with 1/30s	96@1920x1080	1x1	14us~15s

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	Ultra Fine Color Engine
Capture/Control SDK	Windows/Linux/macOS/Android Multiple Platform SDK(Native C/C++, C#/VB.NET, Python, Java, DirectShow, Twain, etc);
ADC	8 Bit / 14 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

C: Color, GS: Global Shutter

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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