HPS3CMOS Series

C-mount USB3.0 Cameras
SONY EXMOR CMOS Sensor

CMOS Series C-mount USB3.0 Camera

HPS3CMOS adopt SONY Exmor, Exmor R (Back-illuminated), Exmor RS CMOS sensor as the image-picking device and USB3.0 is used as the transfer interface.

HPS3CMOS comes with the integrated CNC aluminium alloy compact housing.

HPS3CMOS integrated with 12 bit Super-fine Hardware Image Signal Processor Video Pipeline for Demosaic, Adjustment, Automatic Exposition, Gain Adjustment, One Push White Balance, Chrominance Adjustment, Saturation Adjustment, Gamma Correction, Luminance Adjustment, Contract Adjustment, Bayer and finally from Raw data for 8/12 bit output. This will move the heavier burden of the processing from the PC to the Super-fine HISPVP and greatly accelerating the processing speed.

HPS3CMOS comes with advanced video & image processing application Micro View.

The HPS3CMOS Camera can be widely used in bright field light environment and microscope image capture and analysis with.

Fearutes:

- ⦿ SONY Exmor, Exmor R(Back-illuminated), Exmor RS CMOS sensor with USB3.0 interface.
- ⦿ Integrated CNC Aluminum alloy compact housing.
- ⦿ Super-fine TM HISPVP and USB3.0 5 Gbps interface ensuring high frame rates.
- ⦿ Super high sensitivity up to 1146m V with 1/30s
- ⦿ Super-Fine color engine with perfect color reproduction capability
- ⦿ Ultra low noise and low power dissipation by using column-parallel A/D conversion.
- ⦿ With advanced video & image processing application MICAPS MicroView
- ⦿ Rolling Shutter or Global Shutter.

SPECIFICATIONS

Camera Specifications

Order Code	Sensor & Size(mm)	Pixel(μm)	G Sensitivity Dark Signal	FPS/Resolution	Binning	Exposure
HPS3CMOS20000	20M/IMX183(C) 1"(13.06x8.76)	2.4x2.4	462mv with 1/30s 0.21mv with 1/30s	15@5440x3648 50@2736x1824 60@1824x1216	1x1, 2x2, 3x3	0.1ms~15s
HPS3CMOS12300CGS	12M/IMX304(C,GC) 1"(14.13x10.35)	3.45x3.45	1146mv with 1/30s 0.1mv with 1/30s	23.4@4096x3000 46.3@2048x1500	1x1	0.244ms~15s
HPS3CMOS12000	12M/IMX226(C) 1/1.7"(7.40x5.55)	1.85x1.85	280mv with 1/30s 0.10mv with 1/30s	25@4000x3000 50@2048x1080	1x1, 2x2	0.1ms~15s
HPS3CMOS8300	8.3M/IMX485(C) 1/1.2"(11.14x6.26)	2.9x2.9	2188mv with 1/30s 0.15mv with 1/30s	45@3840x2160 70@1920x1080	1x1, 2x2	0.02ms~15s
HPS3CMOS6300	6.3M/IMX178(C) 1/1.8"(7.37X4.92)	2.4x2.4	425mv with 1/30s 0.15mv with 1/30s	30@3072x2048 38@1536x1024	1x1, 2x2	0.1ms~15s
HPS3CMOS6300B	6.3M/IMX178(C) 1/1.8"(7.37X4.92)	2.4x2.4	425mv with 1/30s 0.15mv with 1/30s	59@3072x2048 59@1536x1024	1x1, 2x2	0.02ms~15s
HPS3CMOS5000CGS	5.0M/IMX264(C,GS) 2/3"(8.45x7.07)	3.45x3.45	1146mv with 1/30s 0.15mv with 1/30s	35@2448x2048 50@1224x1024	1x1	0.1ms~15s
HPS3CMOS3100CGS	3.1M/IMX265(C,GS) 1/1.8"(7.07x5.30)	3.45x3.45	1146mv with 1/30s 0.15mv with 1/30s	53@2048x1536 85@1024x768	1x1	0.1ms~15s

General Specifications

Spectral Range	380-650nm (with IR Filter)
White Balance	ROI Whit Balance/Manual Temp-Tint Adjustment
Color Technique	Super-fine TM HISPVP/NA for Monochromatic Sensor
Recording System	Still Picture or Movie
Capture/ControlAPI	Standard UVC for Windows/Linux/Mac(USB)
PC Requirement	Recommended CPU: Intel i7 Quad-Core (min.3.0 Ghz) processor | 8 GB RAM Windows 1064 bit, data interface USB 3.0, Monitor Resolution 3840x2160 4k
Operating Temperature	-10~50 (in °C)
Storage Temperature	-20~60 (in °C)
Operating Humidity	30~80%RH
Storage Humidity	10~60%RH
Power Supply	DC 5V over PC USB Port

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)