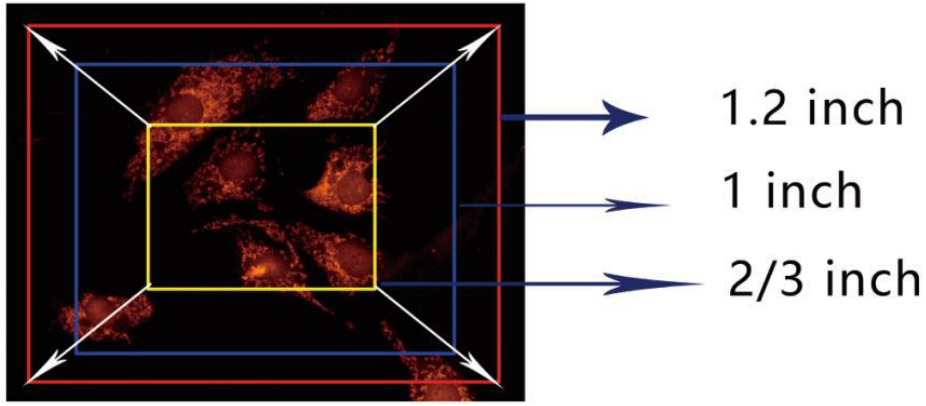
1.2 inch——Wider field of view

1.2 inch sensor with larger lighting area to offer better imaging performance and full view of specimen.



Specification

Item	MSH12-BI	A/D convert	12bit
Effective resolution	4.2 Megapixels	Trigger mode	Software trigger
Sensor size	1.2 inch	Image cache	128Mb
Pixel size	6.5μm × 6.5μm	Cooling mode	Peltier cooling mode, room temperature -15° C
Frame rate	2048 × 2048 22fps	Exposure	Manual exposure / Auto exposure / Zone exposure
	2048 × 1500 29fps	Image format	TIF、BMP、JPG、RAW
	Any size of ROI	Software	DirectShow / TWAIN
Scanning mode	Progress scan/Continuous output	OS system	Windows XP 32bit; Windows 7/8/10 32/64bit;
Shutter type	Rolling Shutter	Data port	USB3.0 B type, 5Gb/s
Expsure time	22μs - 120s	Camera port	C-mount adapter
Effective gain	1x - 16x	Surrounding	Work temperature 0～50℃,Work humidity 10%～85%RH
Spectral response	200 - 1100nm	Demension	Ø113.2 × 105 × 92.6mm

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MshOt

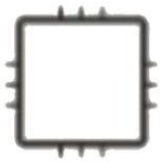
MSH12-BI

Back lighting sCMOS camera

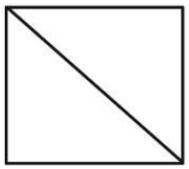
Brief introduction

MSH12-BI a research level back lighting sCMOS camera achieves perfect balanc of high resolution and high sensivitity,maximize the detection of signals, also it combines the ability of high speed and wide dynamic range, it can be widely used in materials and life science, such as low light imaging, fluorescence imaging, spectral imaging and other fields.

Technical advantages



Scientific CMOS
Monochrome sensor

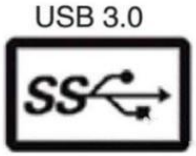


1.2 " big sensor

2.0e-read out noise
Super low noise

30000e- large
Full-well capacity

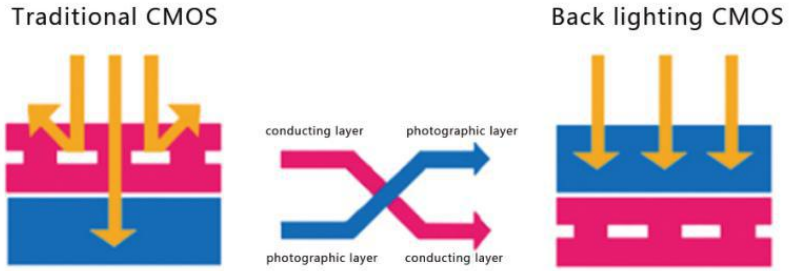
-15° peltier cooling
Low dark current control



High speed USB3.0
Rapid and stable

Back lighting CMOS sensor technology

Traditional front lighting structure sensor,the photodiode is located behind the circuit transistor, the amount of incoming light will be affected by occlusion,the sensitivity becomes smaller and weaker. While MSH12-BI uses back lighting CMOS, the sensor with backlight structure moves the sensitive layer over the conductive layer to change the traditional structure, the whole photosensitive layer is more sensitive to the incident light, obtaining better brightness, noise control and sensitivity.



High sensivity

Quantum efficiency is the probability that photons can be converted into photoelectrons at a certain wavelength, which is related to the wavelength.The quantum efficiency of MSH12-BI has been greatly improved, the quantum efficiency is 95% at wavelength 560nm.