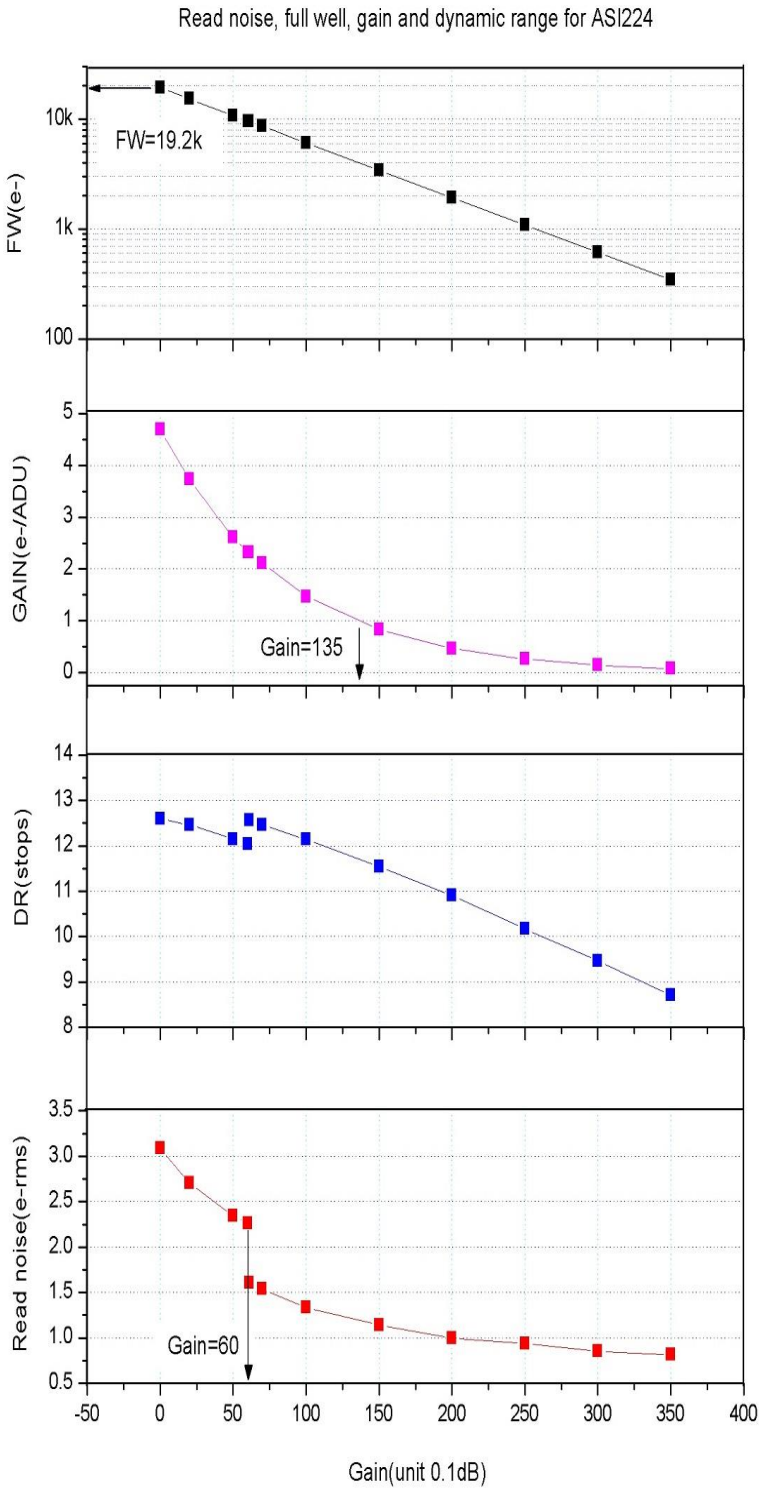
Product Description

CMOS Sensor IMX224	1/3'' 1/3'' 4.9*3.7mm	Resolution 1304*976	ADC 12bit	QE QE 75%-80%
Read Noise 0.8e	FPS 150	Full well 19200e	USB 3.0	Pixel Size 3.75μm

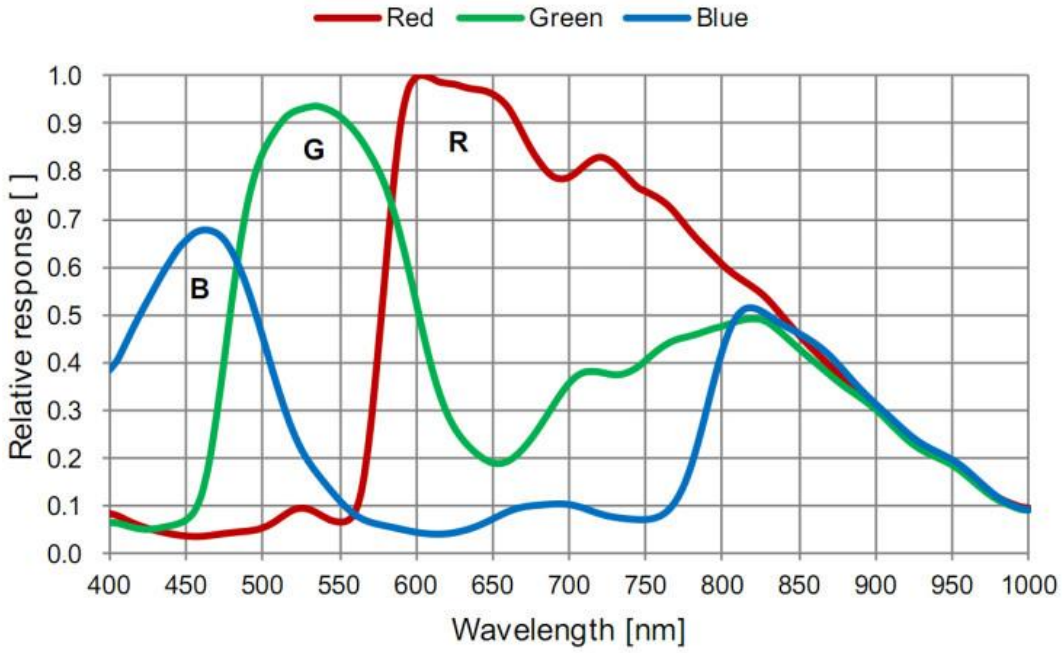
Astrophotography Performance

ASI224MC has a 1/3″ and 1.2M pixels sensor IMX224 with SONY Exmor and NIR Technology. Extremely low read noise (1.5 e) and high sensitivity especially in IR range. Read Noise of ASI224 less than 1e which can compare with sCMOS or EMCCD sensors. Very suitable for astronomy planetary and small DSO imaging.



High QE

Relative QE Curve, we estimate the Peak Value should between 75%-80%.



PCB Version1.3 (include Anti-amp glow function)

Most sensor will have amp-glow problem only if you do long-time exposure capture, such as longer than 1s.

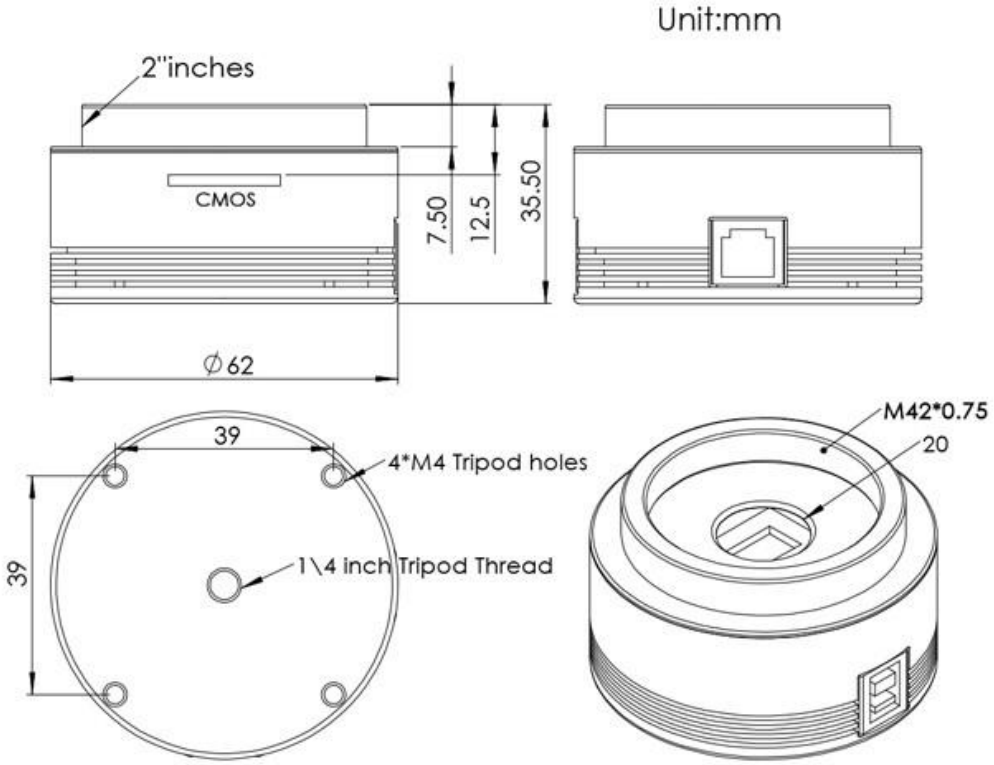
We apply “amp glow reduction technology” to our ASI224MC and ASI224MC-C camera, it is a hardware modification to reduce the amp-glow of the sensor, not every sensor can benefit from this modification, but it is obvious for ASI224MC, so this upgrade is for ASI224MC and ASI224MC-C only .

We made this change since April 2016, which means the current unit (ASI224MC and ASI224MC-C) we produce all equipped with the newest PCB version —V1.3.

USB 3.0 Port & ST4 Port

USB 3.0 Port: can provide 5Gb bandwidth to let ASI224 run at 64fps (12bit, normal mode) or 150 fps (10bit, high speed mode) at full resolution(1.2Mega).
ST4 Port: can be used connect with auto guide port of mount, for guiding.

Mechanical Diagram



What is in the box?

Drivers and Softwares:

Our website has newest camera drivers and many DSO and Planetary capture softwares. Please make sure the newest driver and software has been installed before you start shooting:

https://astronomy-imaging-camera.com/software/

Camera technical details

Sensor: 1/3” CMOS IMX224/IMX225
Resolution: 1.2Mega Pixels 1304X976
Pixel Size: 3.75μm
Sensor Size: 4.8mm*3.6mm
Diagonal: 6.09mm
Exposure Range: 32μs-1000s
ROI: Supported
Binning: 2×2 binning supported
Focus Distance to Sensor: 12.5mm
Shutter Type: Rolling Shutter
Protect window: AR coated window
Operating System Compatibility: Mac, Windows, Linux
Interface: USB3.0/USB2.0
Bit rate: 12bit output(12bit ADC)
Adaptor: 2″ / 1.25″ / M42X0.75
Dimensions: 62 mm Diameter
Weight:100g
Working Temperature: -5°C—45°C
Storage Temperature: -20°C—60°C
Working Relative Humidity: 20%—80%
Storage Relative Humidity: 20%—95%

Supported resolution

10bit ADC / 12bit ADC
1304×976 150fps / 64fps
1280×960 152.4fps / 65fps
800×600 241.2fps / 102.9fps
640×480 299.4fps / 127.6fps
320×240 577.9fps / 256.4fps
More resolutions can be user defined