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ZWO ASI120MM-S Monochrome Astronomy Camera & Autoguider

AUD $319.00

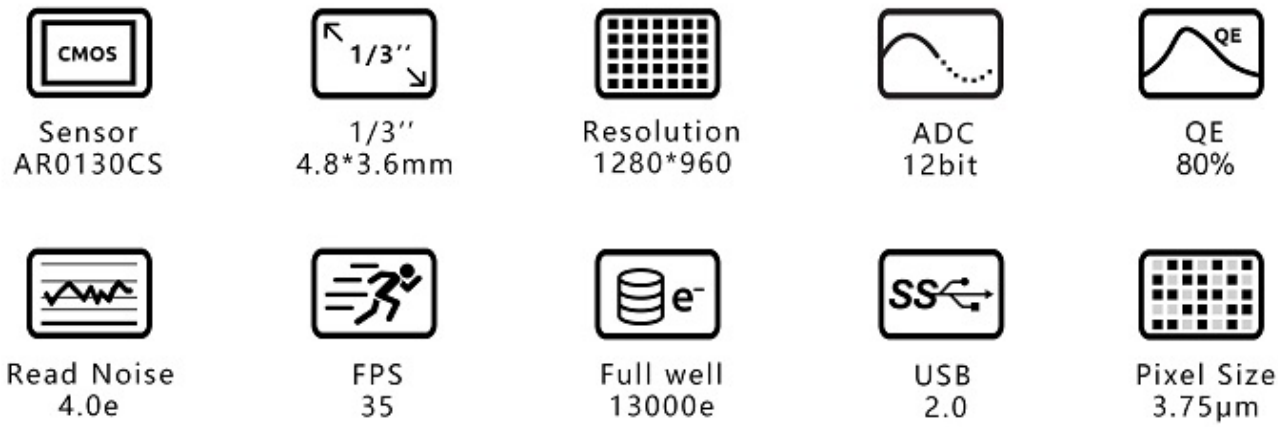
Product Images

Short Description

The ASI120MM-S is a super fast and sensitive USB 3.0 camera. Excellent as an autoguider and monochrome planetary imaging camera.

Description

Product Description

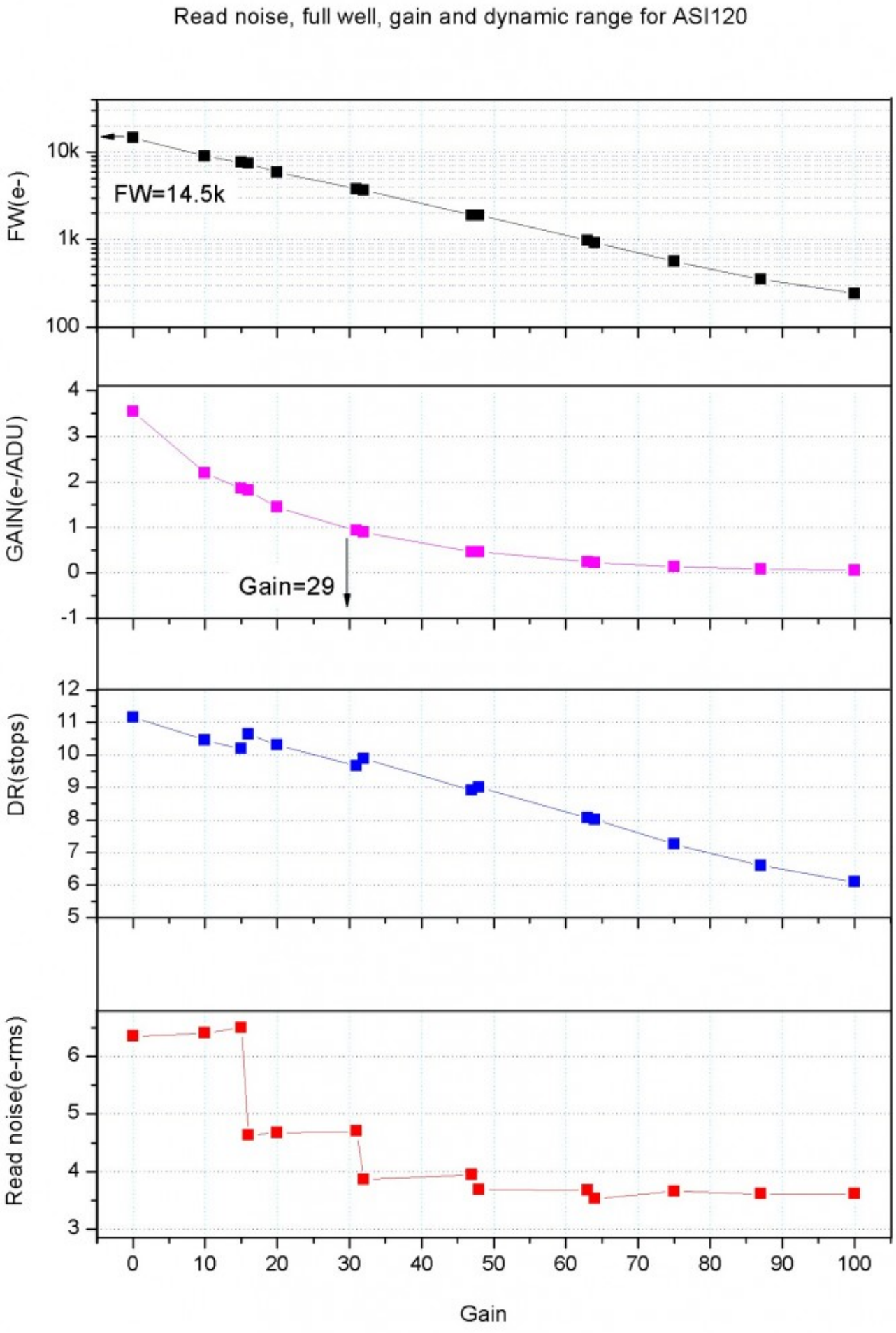


Camera Sensor

The **ASI120** camera integrates an **AR0130CS** 1/3″ sensor (4.8 mm x 3.6 mm). This camera has **1280 x 960 pixels**. The pixel size is 3.75 µm x 3.75 µm. This camera provides **12bit** ADC.

Astrophotography Performance

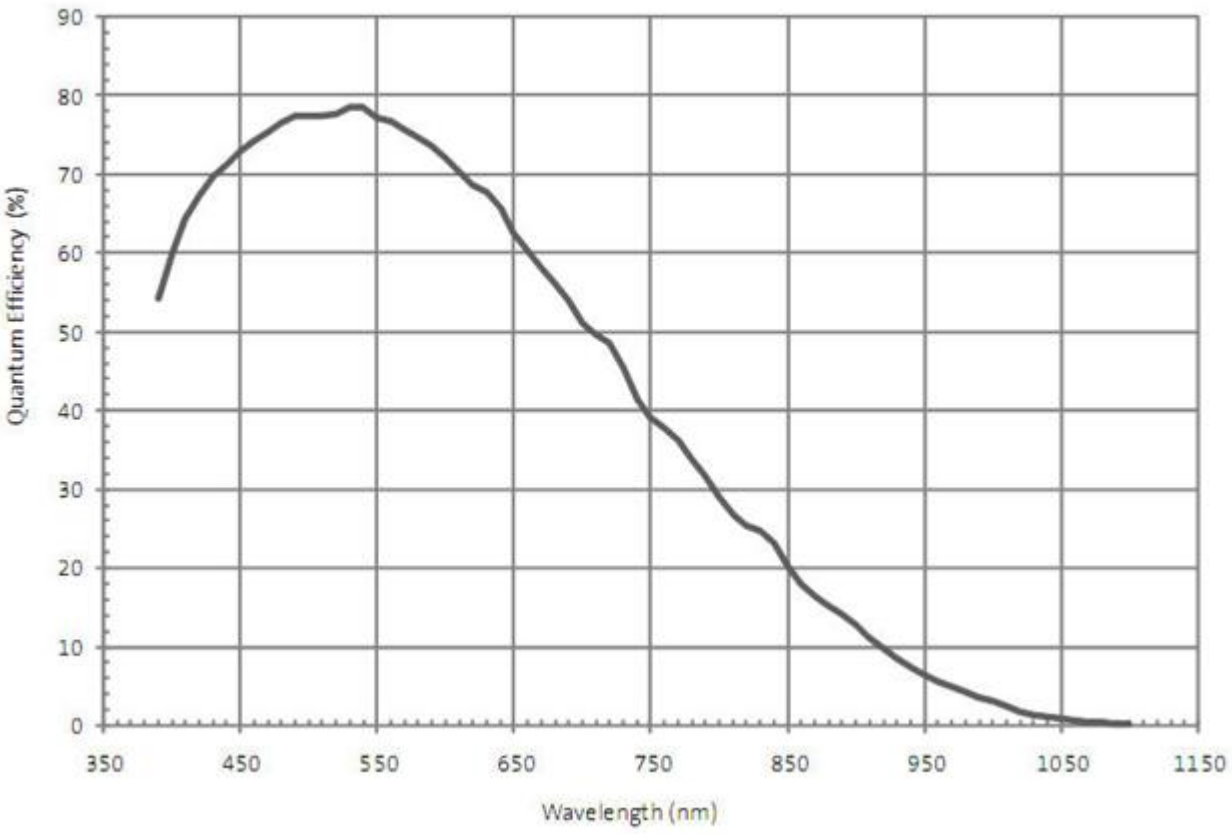
ASI120MM-S is a super fast and sensitive USB3.0 camera, with up to 60FPS under 1280X960 full resolution. It has a peak QE of almost 80%, beyond ICX618 and no FPN (Fixed Pattern Noise). Long exposure times are supported, up to 2000 seconds. Fully compatible with USB 2.0 USB Host.


Read noise, full well, gain and dynamic range for ASI120
FW(e-)
10k
1k
100
FW=14.5k
GAIN(e-/ADU)
4
3
2
1
0
-1
Gain=29
DR(stops)
12
11
10
9
8
7
6
5
Read noise(e-rms)
6
5
4
3
0
10
20
30
40
50
60
70
80
90
100
Gain

High QE

Absolute QE Curve, we estimate the Peak Value is almost 80%.

Figure 23: Quantum Efficiency – Monochrome Sensor

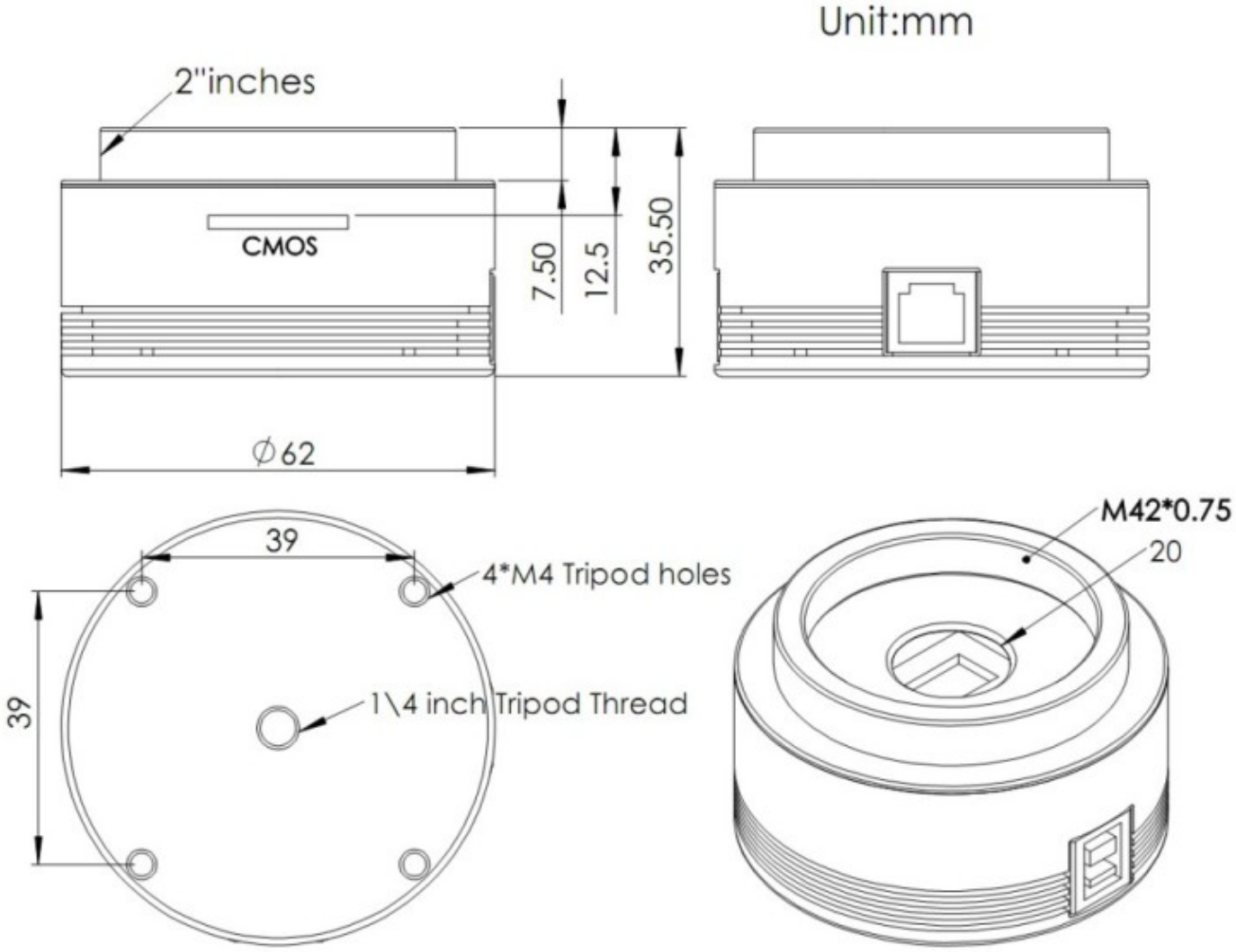


USB 3.0 Port & ST4 Port

USB 3.0 Port: can provide 5Gb bandwidth to let ASI120S run at 60 fps (10bit, high speed mode) at full resolution (1.2Mega).

ST4 Port: can be used connect with auto guider port of mount, for guiding.

Mechanical Diagram


Unit:mm
2"inches
CMOS
7.50
12.5
35.50
∅62
39
4*M4 Tripod holes
39
1\4 inch Tripod Thread
M42*0.75
20

Additional Information

Specifications	**Camera technical details** Sensor: 1/3″ CMOS AR0130CS(Color) / MT9M034(mono) Resolution: 1.2Mega Pixels 1280×960 Pixel Size: 3.75µm Exposure Range: 64µs-1000s ROI: Supported Interface: USB3.0/USB2.0 Bit rate: 12bit output(12bit ADC) Adaptor: 2″ / 1.25″ / M42X0.75 Dimension: φ62mm X 28mm 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** Binning 1×1: 1280X960@60FPS 1280X720@98FPS 1280X600@116FPS 1280X400@168FPS 960X960@74FPS 1024X768@90FPS 1024X400@160FPS 800X800@85FPS 800X640@106FPS 800X480@141FPS 640X480@133FPS 512X440@145FPS 512X400@158FPS 480X320@196FPS 320X240@254FPS Binning 2×2: 640X480@45FPS *Tested under USB3.0 port without overclocking. There is an option to overclock 30% of the current fps.