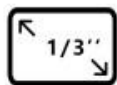


Product Description



Sensor
IMX290



1/3"
5.6*3.2mm



Resolution
1936*1096



ADC
12bit



QE
80%



Read Noise
1.0e



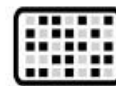
FPS
170



Full well
14600e



USB
3.0



Pixel Size
2.9µm

Camera Sensor

IMX290LQR, IMX291LQR

Diagonal 6.46 mm (Type 1/2.8) Square Pixel Array Color CMOS Image Sensor

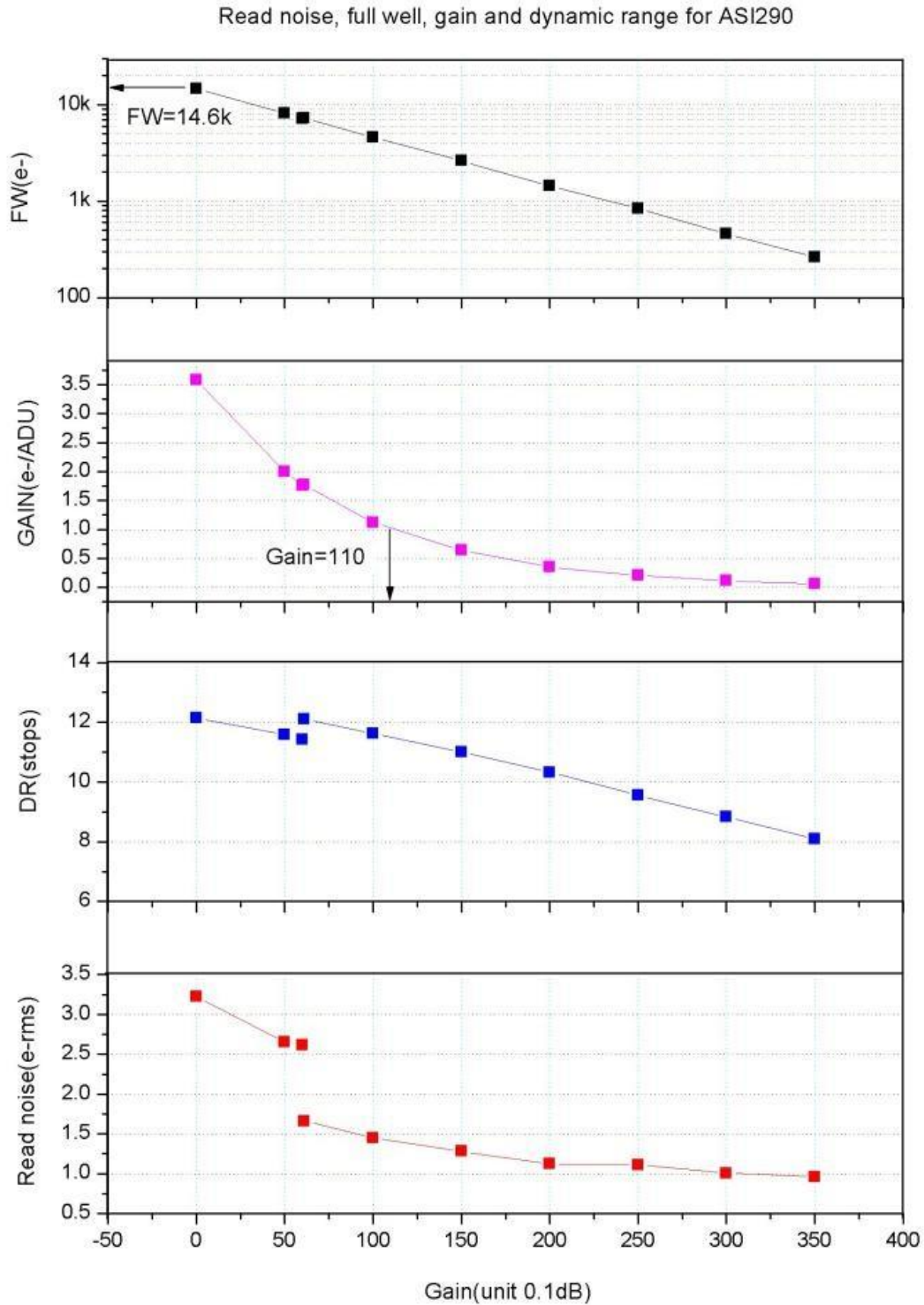
Back-Illuminated CMOS image Sensors with Improved Visible Light and Near Infrared Sensitivity that Support 1080p

Sony has developed the approx. 2.13M effective pixel back-illuminated CMOS image sensors IMX290LQR and IMX291LQR with improved sensitivity in the visible-light and near infrared light regions for industrial applications.

A new 2.9 µm-square unit pixel has been developed that combines a back-illuminated structure with technology for improving near infrared sensitivity to further enhance picture quality at low illumination while at the same time realizing Full HD cameras for industrial applications. This realizes two or more times the sensitivity in the visible-light region and three or more times the sensitivity in the near infrared light region than that of the existing Sony product (IMX236LQJ).

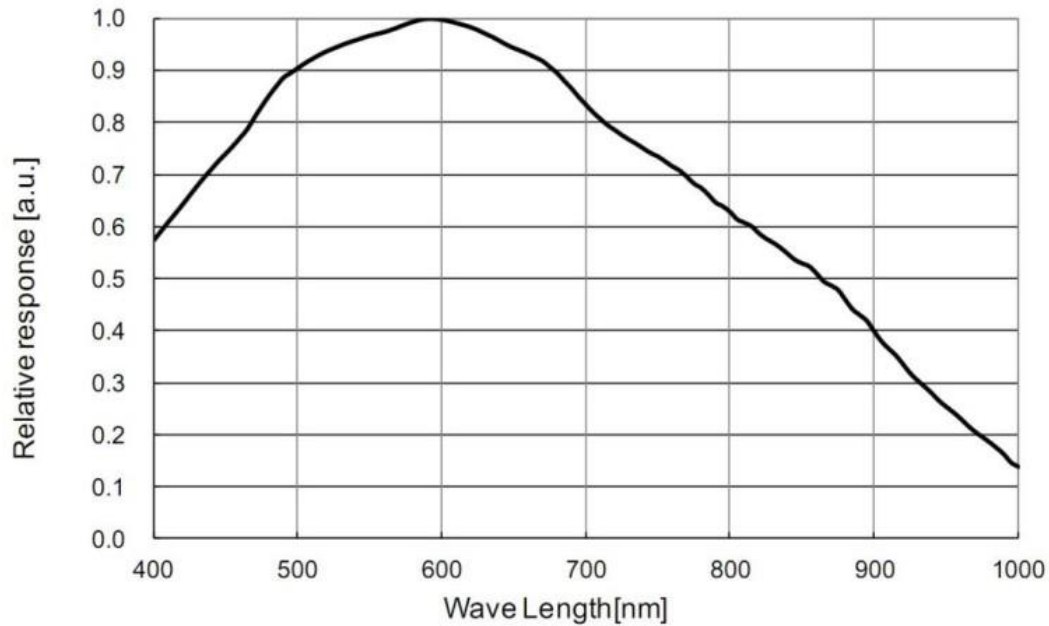
Astrophotography Performance

ASI290MM offers very good performance for astrophotography. Low read noise, high dynamic range, QE peak about 80%, AR protective window and much more



High QE

Relative QE Curve, we estimate the Peak Value is about 80%.

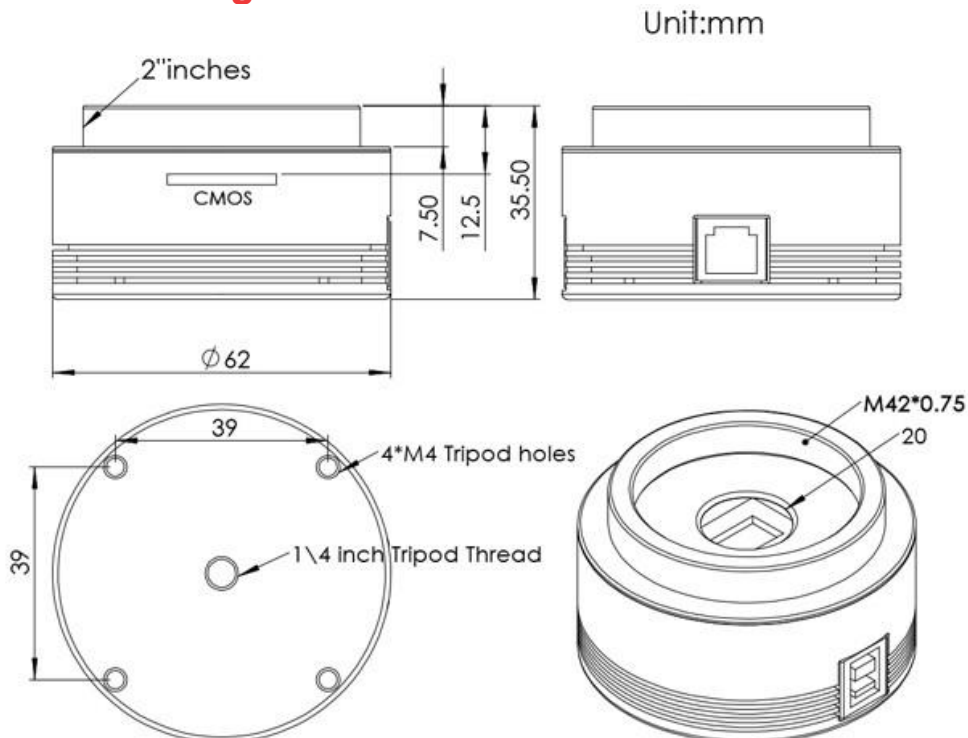


USB 3.0 Port & ST4 Port

USB 3.0 Port: can provide 5Gb bandwidth to let ASI290 run at 82.2fps (12bit, normal mode) or 170 fps (10bit, high speed mode) at full resolution(2.1Mega).

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/>

Sensor: 1/2.8" CMOS IMX290/IMX291
 Resolution: 2.1Mega Pixels 1936×1096
 Pixel Size: 2.9µm
 Exposure Range: 32µs-2000s
 ROI: Supported
 ST4 Guider Port: Yes
 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
 Dimension: φ62mm X 36mm
 Weight: 120g or 4.2 ounces (without lens)
 Working Temperature: -5°C—45°C
 Storage Temperature: -20°C—60°C
 Working Relative Humidity: 20%—80%
 Storage Relative Humidity: 20%—95%

Supported resolution

USB2.0 MAX FPS

1936×1096: 20.4

1280×960: 35.3

640×480: 141.5

320×240: 355.9

2X2Bin :968×548: 20.4

USB3.0 MAX FPS(12bit/10bit)

1936×1096: 82.2/170

1280×960: 93.6/193.9

640×480: 184/381.2

320×240: 355.9/737.5

2X2Bin :968×548: 82.2/170

More resolutions can be user defined