

QHY8L 6mega pixel cooled APS size Color CCD camera

QHY8L is a compact and light weight one shot APS size CCD camera. With Super HAD technology and its one stage cooling system and high efficient heat sink construction and the active cooling fan the dark noise of QHY8L is extremely low. The 7.8um*7.8um pixel size is idea for high resolution and high sensitivity deep sky imaging. The 400g weight and 63mm diameter make QHY8L very suitable for Hyper Star Imaging. The QHY8L is based on QHYCCD's high speed and low readout CCD technology. It will produce high SNR imaging for deep sky imaging.



QHY8L CCD camera spec

CCD sensor	ICX413AQ
CCD size	Typical 1.8inch(APS size)
Total pixel	3110*2030 (Note 1)
Effective pixel	3000*2000
Pixel size	7.8um*7.8um
Effective Area	25.10*17.64mm
CCD readout Type	2 field(1*1binning) Progressive Scan(2*2,4*4binning)
Peak QE	60%@green.50%@red and blue
Anti Blooming Gate	Yes,-100dB
Capture Download Speed	7sec(1*1binning) 3.5ec(2*2binning) 2ec(4*4binning)

Preview speed	2sec(1*1binning) 1sec(2*2binning) 0.5sec(4*4binning)
Support Binning	1*1,2*2,4*4
Readout speed	600kpixel/s, 3Mpixel/s
Readout Noise	Typical 8-10e-
System Gain	0.5e-/ADU
CDS	Yes
ADC	16bit
Cooling	Single stage TEC
Fan	Build in Active Fan
Maximum Delta T	35degree below ambient
Temperature regular	Yes
Power consumption	Minimum(TEC OFF) 2Watt TEC=50% 12Watt Maximum(TEC=100%) 22Watte
Input voltage	DC12V(Input to DC201 adapter) Safe Range(11V-13.5V) [Note 2]
Telescope Interface	M42/0.75 screw & 2inch T ring
Maximum Center adjustment	+/-0.5mm
Maximum Tile adjustment	1Degree
CCD sensor to front location surface	20mm(without tile adjust ring) 23mm(with tile adjust ring)
Weight(Camera body only, without DC201 and cables)	390g(without tile adjust ring) 425g(with tile adjust ring)
Camera size	Diameter=63mm Length=129mm
Guide port	Build in Optic isolated guide port RJ11 6pin(ST4 type) (Optional depends on software support)
External removable Silicon tube	Yes

Note:

- 1) This is the physical array value. The actual output image size depends on the software.
- 2) If input voltage exceed 12V (eg. Using battery just charged). Check the "TEC protection" options in software.
- 3) -100dB means the over exposure ratio without blooming is 100000times, when exceed this, blooming may occur(eg. Very bright star) . Blooming can be completely avoid by add extra mechanical shutter

Mechanical Drawing

