Starlight Xpress Ltd

*'leaders through innovation'*

# Lodestar X2

***The best is now even better***

Exceptionally high sensitiviy, incredibly low noise, minature, USB2.0 imaging/autoguiding camera


For years, the Lodestar has been held in the highest regard as being the best autoguider on the market. The innovative minds at Starlight Xpress have been trying to improve on the iconic Lodestar since it's conception; however, this has proved to be very difficult to achieve - until now that is.

Introducing the ***Lodestar X2***; the latest and most sensitive compact guide camera from Starlight Xpress.

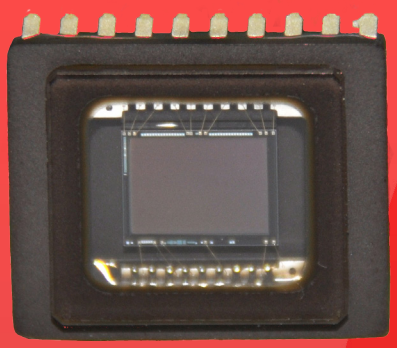
***Key Features:***

Big things can come in small packages and the Lodestar X2, really is no exception. This compact guide camera is packed full of great features:

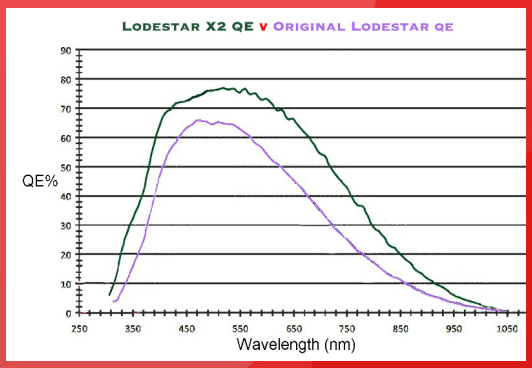
- **ONLY 1¼" in diameter** allows it to drop neatly into your 1¼" eyepiece holder - no additional adaptors required.
- **Large Imaging Area** (6.45mm x 4.75mm) giving you a wide field of view to find a suitable guide star.
- **Sensitivity -** with an impressive 77% QE, and large pixels, the Lodestar X2 just sucks up those photons. Sensitivity is key, but combined with the incredibly low noise of the Lodestar X2, finding a guide star has just become even easier.
- **'Full size RJ12' Autoguider Port** - No need to run extra cables from your computer to control your mount corrections.
- **Powered by the USB** of your computer so no need to carry an extra power supply with you - one less thing to forget when you are on your way to the Star Party.
- **Compact and solid aluminium** contruction.

Specifications:

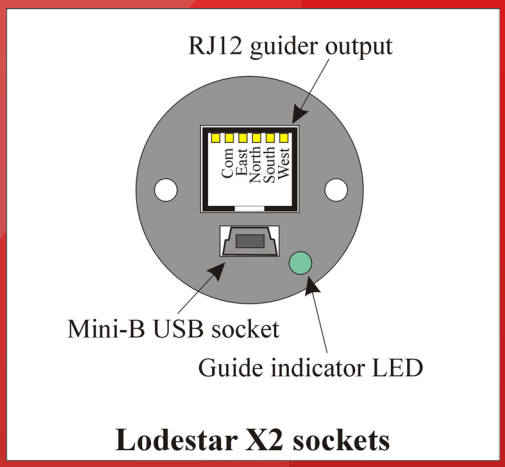
- CCD type: ICX829AL Sony Exview interline CCD with very low dark current and vertical anti-blooming.
- CCD Full resolution Pixel data: Pixel size: 8.2uM x 8.4uM, Image format: 752 x 580 pixels
- CCD Image area: 6.4mm (Horizontal) x 4.75mm (Vertical).
- CCD quality: Grade 1
- Spectral Response: QE max at 620nM (~77%), 45% at 400nM and 770nM.
- Readout Noise: Less than 10 electrons RMS - typically only 6 electrons.
- Full-well capacity: Greater than 50,000 e- (unbinned)
- Anti-blooming: Overload margin greater than 1000x.
- Dark current: Dark frame saturation time greater than 1 hour. Less than 0.1 electrons/second @ + 10C ambient.
- Data format: 16 bits.
- System gain: 0.4 electrons per ADU
- Computer Interface: Built-in USB 2.0 compatible interface.
- Image download time: Typically 0.2 seconds at full resolution using USB 2.0.
- Power requirements: USB powered.
- Cooling system: Ambient air cooling.
- Size: 32 x 86mm black anodised aluminium barrel with 1" x 32tpi 'C mount' thread at the CCD window end & input/output plugs at rear.
- Weight: approx. 85g.



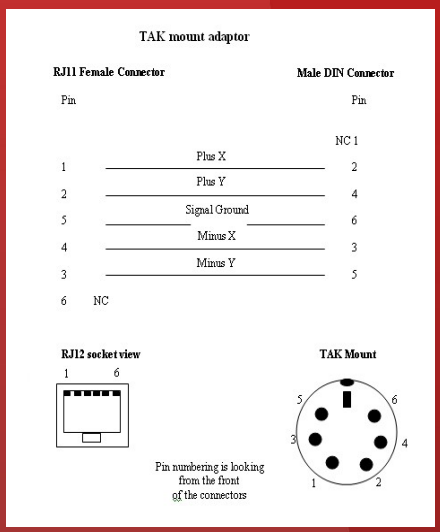
The latest ***EXview*** **HAD CCD II**™ from Sony. Super sensitive and in a 1/2” format CCD, giving you a large area to find a suitable guide star.




Peak sensitivity in the visible spectrum with a very high 77% Quantum Effeciency.




The Lodestar X2 has a full size RJ12 guider socket with ‘ST4’ output via Opto-Isolators (optical relays) with switching currents up to 50mA.




Takahashi EM200 Wiring Conversion Diagram.

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