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Orion StarShoot G3 Deep Space Monochrome Imaging Camera

AUD $816.00

Product Images

Short Description

Description

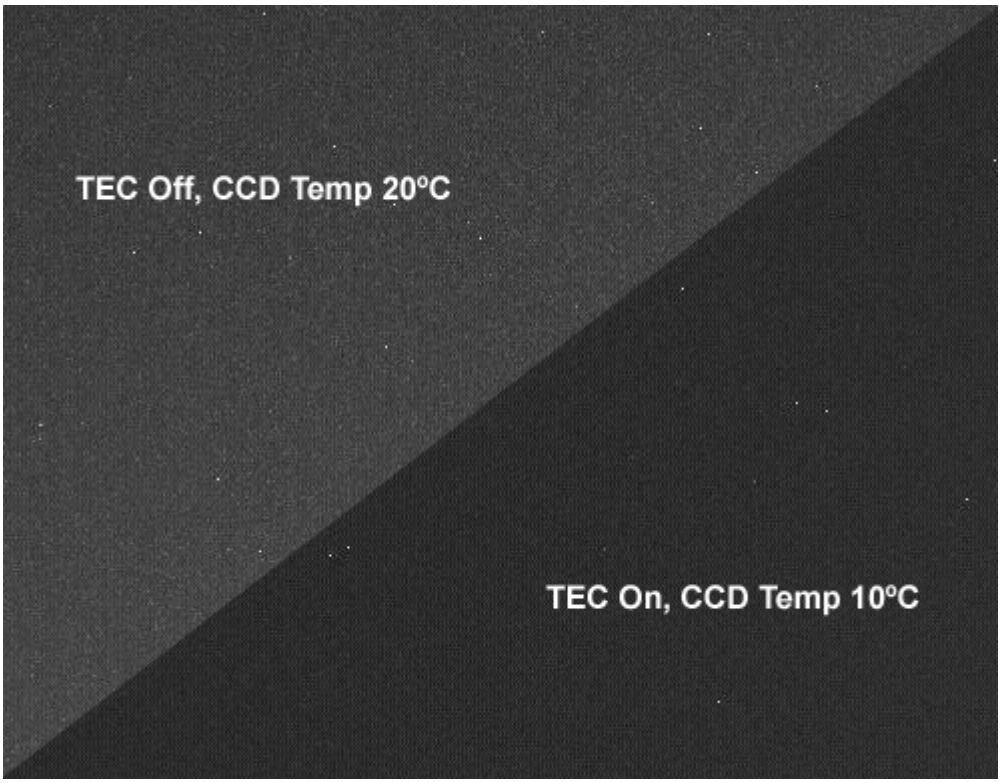
Discover the joy of taking gorgeous 16-bit pictures of deep space phenomena without breaking the bank with the value-packed Orion StarShoot G3 Deep Space Monochrome Imaging Camera! Our affordable third generation entry-level monochrome Orion StarShoot Deep Space Imaging Camera lets you take beautiful astrophotos without emptying your wallet.

The Orion StarShoot G3 Deep Space Monochrome Imaging Camera has been designed with performance enhancing features and software that until now have been reserved for much more expensive CCD imagers. Built around the popular Sony interline ICX419AKL Monochrome CCD chip, which boasts a 752 x 582 pixel array with sensitive, 8.6 micron by 8.3 micron pixels, the StarShoot G3 is capable of detecting fine details in celestial objects. This bigger, 1/2" format CCD sensor usually isn't available in cameras priced as low as the StarShoot G3, and it provides a much larger imaging field of view than cameras equipped with 1/3" format chips so you can shoot more sky in far less time.

Featuring a monochrome imaging CCD chip, the StarShoot G3 Monochrome Imaging Camera is capable of performing advanced tri-color imaging techniques when used with proper LRGB or narrowband astrophotography filters. Using a monochrome astrophotography camera gives you complete control over which light wavelengths to accentuate to achieve vibrantly colored astrophotos of deep space phenonema.

The StarShoot G3 Deep Space Monochrome Imaging Camera is the only monochrome camera in its price range to feature regulated thermoelectric cooling (TEC). Regulated thermoelectric cooling significantly improves astrophoto quality and reduces noise by enabling accurate dark frame acquisition. This regulated "cooling" feature is usually only found in much pricier cameras, and makes the StarShoot G3 a truly amazing value. The on-board TEC can cool the StarShoot G3 Mono to a brisk 10°C below ambient temperature so that noise is minimized in dark frames and exposures. The monochrome StarShoot G3 even features a small, vibration-free fan which assists the TEC to remove warm air and further optimize imaging results. These cooling features are usually only found on imaging cameras priced up to four times more expensive than the Orion StarShoot G3!

Seen below is a split-view taken from two different 180 second dark frames displaying the exact same pixel brightness range. As seen with the TEC on, the StarShoot G3's cooling system reduces the number of hot pixels and overall noise in the image.



The Orion StarShoot G3 Deep Space Monochrome Imaging Camera is capable of downloading a full frame image in approximately 2 seconds. A convenient subframe downloading feature allows for even speedier results. A convenient wide exposure range allows you to take extensive exposures of wispy deep space objects and then capture a quick snapshot of the Moon during the same imaging session.

Complete astrophotography imaging software is included with the StarShoot G3 Deep Space Monochrome Imaging Camera. Orion Camera Studio software makes it easy to control image capture through the camera, save results, process images, and share with family and friends! The included software is compatible with Windows XP, Vista, 7, 8 and 10 Operating Systems (32 bit, 64 bit). ASCOM drivers are also included for the Orion StarShoot G3 Deep Space Monochrome Imaging Camera, allowing use with a number of other popular image processing programs, such as Nebulosity, ImagesPlus, and more.

The versatile Orion StarShoot G3 can also be used as a dedicated autoguider, with a direct ST-4 output conveniently built right into the camera body. Use the StarShoot G3 as a high-performance, low-noise 16-bit CCD autoguider with a high-end CCD imaging camera or DSLR attached to your imaging telescope for especially accurate tracking and precise results. Included ASCOM drivers allow you to use your choice of autoguiding software with the StarShoot G3, such as PHD Guiding, when using the camera as an autoguider. Autoguiding software is not included with the Orion StarShoot G3 Monochrome Deep Space Imaging Camera.

The Orion StarShoot G3 Deep Space Monochrome Imaging Camera comes with a removable 1.25" nosepiece for easy attachment to virtually any telescope focuser. The nosepiece is threaded for use with 1.25" Orion imaging filters so you can easily enhance your images. Removing the 1.25" nosepiece reveals a built-in 2" nosepiece with standard T-threads for secure coupling of the camera to your imaging telescope and/or astrophotography accessories.

Measuring just 3.4" in diameter with a depth of 1.85", the compact Orion StarShoot G3 Deep Space Monochrome Imaging Camera won't take up much space in your accessory case, and its small size makes it a great candidate for use with Fastar and Hyperstar imaging systems. The camera weighs just 12 oz. so whether it's used as an imaging camera or autoguider, it will keep your astrophotography setup lean and mean.

The StarShoot G3 Deep Space Monochrome Imaging Camera connects to your computer via its USB 2.0 connection, and a 10' USB cable is included. A 10' auto-lighter power cable is also included to provide 12V DC power to the on-board cooling TEC when needed. The USB 2.0 connection provides enough power to the camera for non-cooled operation or for use as an autoguider. External power is only required for TEC operation.

The Orion StarShoot G3 Deep Space Monochrome Imaging Camera is our most affordable 16-bit, cooled monochrome CCD imaging camera. In fact, it's one of the most affordable feature-packed cameras available to astrophotographers today!

Media Buzz

Sky at Night Magazine, December 2012
"The G3 is an excellent entry-level astronomical CCD camera. It's light, more sensitive than a DSLR, reasonably affordable and delivers crisp, clean and detailed results."

"The G3 is not just a great entry-level CCD camera: it can be used as an autoguider."

"..each greyscale image can contain up to 65,536 grey tones - perfect for all those delicate, wispy bits of faint nebulosity."

Sky & Telescope Magazine, November 2012
"The Orion Camera Studio software supplied with the G3 cameras offers basic camera control and image-processing functions that are easy to use."

"I found both StarShoot G3 Cameras to be exciting additions to the beginner CCD camera market. Their decent-sized chip, small physical size, and regulated cooling rolled into a package ... are clearly milestones in the continually evolving amateur imaging field."

"Today's beginning CCD astrophotographers have a far superior and less expensive first step available to them in the Orion StarShoot G3 cameras."

Warranty
Limited Warranty against defects in materials or workmanship for one year from date of purchase. This warranty is for the benefit of the original retail purchaser only. For complete warranty details contact us.

Warning
Please note this product was not designed or intended by the manufacturer for use by a child 12 years of age or younger.

Additional Information

Specifications	• Best for imaging: Deep sky • Imaging sensor: Sony ICX419ALL monochrome CCD • Imaging sensor size: 7.40mm x 5.95mm • Pixel array: 752 x 582 (437,664 total) • Pixel size: 8.6 x 8.3 • Imaging chip: Monochrome • Autoguider capability: Yes • Exposure range: 0.01 seconds to infinity • A/D conversion: 16 bit • Thermoelectric cooling: Yes • IR filter: No • Mounting: 1.25" nozzle, 2" nozzle or t-thread • USB connection: High-speed 2.0 • Software compatibility: Windows 7/8/10 • Full well capacity: 50000e- • Read noise (RMS): 9e- • Dark signal (at 0º C): 0.01e-/pixel/sec • Gain: 0.79e- per ADU • Binning: 1x1, 2x2 • Max cooling: -10C from ambient • Full frame download time: 2 sec • Backfocus distance (from T-threads): 19.00mm • Weight (oz.): 12 • Warranty: One year