

SKYnyx
ASTRO CAMERAS



USB 2.0 & USB 3.0 Astrophotography Cameras

Capture clear, crisp, planetary, lunar and solar images with Lumenera's SKYnyx (USB 2.0), Lt Series (USB 3.0) and INFINITY (research-grade) cameras.

These digital cameras have been specifically designed with both amateur and professional photographers in mind, featuring high sensitivity, low noise and extremely fast frame rates with reliable delivery of images. The USB 2.0 and 3.0 digital interfaces ensure a simple plug-and-play installation, and one standard cable minimizes equipment clutter.

The SKYnyx, INFINITY and Lt series are supported by an experienced team of technical support and imaging experts. We understand your imaging needs and are here to help you get the most out of your camera.

Contact us to determine how you can benefit from Lumenera's high-quality reliable products.



www.lumenera.com

USB 2.0



SKYnyx Planetary Astrophotography Cameras

The SKYnyx family of cameras offer high sensitivity Sony CCD sensors, and are powered directly off the USB 2.0 bus with no requirement for external power.* Advanced features such as selection of Region of Interest (ROI) and binning provide extremely high frame rates with no data compression. Superior signal to noise ratios meet astrophotographers demanding needs for high quality images. All SKYnyx cameras have a rugged, anodized aluminum enclosure, providing years of uncompromised imaging and excellent performance.

*An adapter jack is incorporated into the camera design to allow for external power, if USB bus power is unavailable or insufficient.

Camera Specifications

Model	Resolution	Optical Format	Pixel Pitch	FPS	Bit Depth	Read Noise	Dynamic Range	Dark Current **	Well Depth	Lens Mount	Color/Mono
SKYnyx											
SKYnyx2-0	640 x 480	1/3"	7.4 μm x 7.4 μm	60	8 or 12	10 e-	58dB	<1 e-/s	40,000 e-	T	Color or Mono
SKYnyx2-1	1392 x 1040	1/2"	4.65 μm x 4.65 μm	15	8 or 12	12 e-	66dB	2 e-/s	10,000 e-	T	Color or Mono
SKYnyx2-2	1616 x 1232	1/1.8"	4.4 μm x 4.4 μm	12	8 or 12	12 e-	66dB	<2 e-/s	14,000 e-	T	Color or Mono

**Measured at 25°C.



Highlights

- Sony CCD sensors with excellent sensitivity
- VGA, 1.4 and 2.0 megapixel resolution
- 8 or 12-bits per pixel
- Low noise for crisp imaging
- ROI and binning supported
- T-mount

Astro Imaging Software

Control your SKYnyx camera and capture images through our 3rd party software partners. Lumenera is integrated with the most popular commercial, shareware and freeware vendors, including:

- AstroArt (MSB Software)
- K3CCD Tools (K3)
- LUCAM Recorder (Heiko Wilkens)
- MaxIm DL (Cyanogen)
- StreamPix (NorPix)

Lumenera's SKYnyx astrophotography cameras also support a DirectShow interface, allowing camera control by any DirectShow compliant application.

Capture clear, crisp, planetary, lunar & solar images with Lumenera's SKYnyx cameras.

USB 2.0

INFINITY

INFINITY Camera Series

Effortlessly capture challenging lunar and planetary images in complex lighting situations with Lumenera's research-grade INFINITY cameras. The INFINITY2-1R and INFINITY3-1UR contain extremely low noise electronics, high grade components, and Lumenera's unique thermal management technology. These cameras offer a reduced dark current noise, providing long exposures for astronomy applications.

Highlights

- Ultra-sensitive Sony ICX285 1.4 megapixel sensor
- Thermoelectric uncooled camera models
- Research-grade cameras with extremely high dynamic range
- 12 or 14-bit output for quantitative applications
- Easily manages seconds of exposure time with a dark current rating of less than 1 e-/s
- Ultra low noise
- C-mount



Produce crystal clear, vibrant images with Lumenera's INFINITY cameras.

Camera Specifications

**Measured at 22°C.

Model	Resolution	Optical Format	Pixel Pitch	FPS	Bit Depth	Read Noise	Dynamic Range	Dark Current *	Well Depth	Lens Mount	Color/Mono
INFINITY											
INFINITY2-1R	1392 x 1040	1/2"	4.65 μ m	30*	8 or 14	8.5 e-	64.6 dB	< 1 e-/s	13,500 e-	C	Color or Mono
INFINITY3-1UR	1392 x 1040	2/3"	6.45 μ m	30	8 or 14	6 e-	70 dB	< 1 e-/s	18,500 e-	C	Color or Mono

*30 fps with INFINITY Capture.

USB 3.0

Lt Camera Series

Lumenera's Lt225 and Lt425 are the first of an exciting new family of USB 3.0 high performance cameras based on the industry leading CMOSIS CMV2000 and CMV4000 global shutter sensors. The incredibly fast USB 3.0 interface, combined with these two CMOS sensors, has resulted in high sensitivity cameras well suited for applications requiring high-speed image acquisition and exceptional performance, such as astronomy.



Highlights

- Very high frame rates up to 170 fps
- Blur-free global shutter CMOS sensor
- 2 and 4 megapixel CMOSIS color, mono, NIR solutions
- Built-in frame buffering
- C-mount

Camera Specifications

**Measured at 25°C.

Model	Resolution	Optical Format	Pixel Pitch	FPS	Bit Depth	Read Noise	Dynamic Range	Dark Current *	Well Depth	Lens Mount	Color/Mono/NIR
Lt Series											
Lt225	2048 x 1088	2/3"	5.5 μ m	170	8 or 12	13 e-	60 dB	125 e-/s	13,500 e-	C	Color, Mono or NIR
Lt425	2048 x 2048	1"	5.5 μ m	90	8 or 12	13 e-	60 dB	125 e-/s	13,500 e-	C	Color, Mono or NIR



USB 2.0 & USB 3.0

Astrophotography Cameras

To better serve you, Lumenera has forged strategic partnerships with distributors and system integrators world wide. Please contact us at 1 (613) 736-4077 or astronomy@lumenera.com for details on how to order, or to join our partner program.



7 Capella Court, Ottawa, ON, K2E 8A7
Telephone: 613-736-4077
astronomy@lumenera.com

www.lumenera.com

© 2013 LUMENERA CORPORATION. ALL RIGHTS RESERVED. DESIGN, FEATURES, AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

13-ASTRO-01