

# SKYnyx2-0

High Speed CCD USB 2.0  
Astrophotography Camera



## High Resolution Images

Lumenera's SKYnyx2-0 VGA CCD digital camera is specifically designed for lunar, solar and planetary imaging, featuring high sensitivity, low noise and extremely fast frame rates. Lumenera's entry-level astrophotography camera offers, 640 x 480 resolution and on-board processing, delivering outstanding image quality.

## 60+ Frames Per Second

Specifically designed for the astrophotography market, this camera's technology and design are based on Lumenera's Lu075 camera - named a 2006 Hot Product by Sky & Telescope Magazine. The SKYnyx2-0 surpasses its predecessor with reduced noise levels and power consumption, ROI, and 60 fps (higher with binning).

## Application

The Lumenera Camera Software Developer Kit (SDK) provides a full suite of features and functions that allow you to maximize the performance of your camera within your application. The SDK is compatible with all USB and GigE-based cameras. Microsoft DirectX/DirectShow, Windows API and .NET API interfaces are provided allowing you the choice of application development environments from C/C++ to VB.NET or C#.NET. Full inline IntelliSense autocompletion and documentation is provided with the .NET API interface and is accompanied by a full API manual describing all the camera functions and properties.

## Superior Technical Assistance Center (TAC)

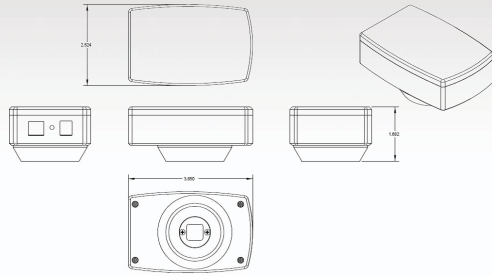
SKYnyx2-0 is supported by an experienced team of technical support and imaging experts. We understand your imaging needs and are here to help you get the most out of your camera. As a Lumenera customer you gain access to the Technical Assistance Center (TAC) group and knowledge base.

## Features

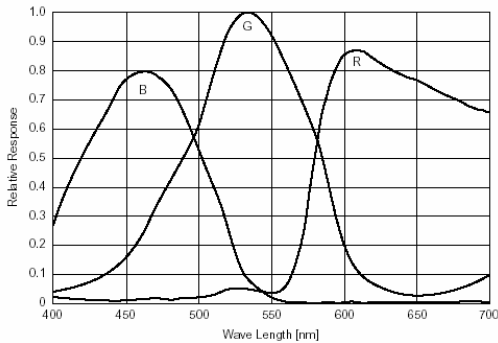
- The excellent sensitivity and low noise characteristics of the SKYnyx2-0 CCD image sensor enable users to capture high quality images
- 60 fps at full 640 x 480 resolution, with no compression
- Maximum frame rate exceeds 100 fps with binning and ROI
- Select 8 and 12-bit pixel data modes
- T-mount for easy installation
- Up to 4096 intensity levels per channel
- The high-speed USB 2.0 interface eliminates a framegrabber and facilitates ease of installation on both laptop and desktop computers
- Both custom design services and a Software Developer's Kit are available to help with unique design requirements and software integration
- SKYnyx2-0 captures images through our 3<sup>rd</sup> party software partners
- SKYnyx2-0 cameras are software compatible with Windows XP, Windows Vista and Windows 7, 32 and 64-bit operating systems
- Full one (1) year warranty



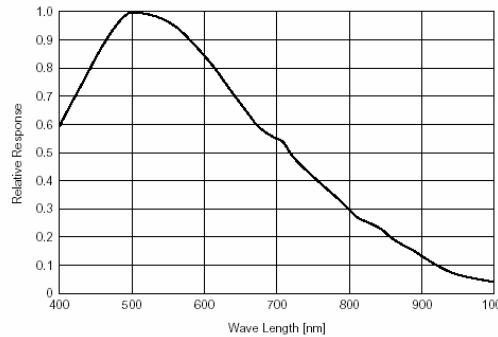
**Mechanical Drawing**



**Color Quantum Efficiency Curve**



**Monochrome Quantum Efficiency Curve**



**Ordering Options**

SKYnyx2-0M	VGA CCD Enclosed Monochrome Camera
SKYnyx2-0C	VGA CCD Enclosed Color Camera
LuCAMSW-DVD	DVD with user application software, camera device drivers and documentation (no charge accessory)
LuSDK	Software Developer's Kit (Web download)
LuSDK-DVD	Software Developer's Kit (DVD)

**Included with Shipment**

SKYnyx2-0 digital camera for USB 2.0
CD-ROM with drivers
2 m USB 2.0 Cable

**Sensor Specifications**

Image Sensor	Sony ICX424, VGA, color or mono progressive scan
Optical Format	1/3"
Active Area	5.8 x 4.9 mm
Pixel Size	7.4 x 7.4 µm
Resolution	640 x 480 pixels

**Camera Specifications**

Frame Rate	60 fps
Bit Depth	8 or 12-bit
Binning Modes	2 x 2
Exposure Control	Manual and automatic control
Gain Range	1 to 10 x optimizable
White Balance	Manual and automatic control

**Camera Characteristics**

Dynamic Range	>60 dB
Read Noise	10 e- rms
Dark Current Noise	<0.01e-/s

**Mechanical Specifications**

Data Interface	Standard USB 2.0 high-speed interface
Lens Mount	T-Mount
Dimensions (LxWxH)	64 x 97.78 x 42.67 mm (enclosed) 2.52 x 3.85 x 1.68 inch (enclosed)
Mass	320 g (enclosed)
Operating Temperature	0 to 50 °C
Storage Temperature	-30 to 70 °C
Operating Humidity	5 to 95 %, non-condensing
Shock / Vibration	50 g shock, 5 g (2 to 200 Hz) vibration

**Camera Software**

Operating Systems	Windows XP, Vista, 7, both 32 and 64-bit
Software Interfaces	Windows API, .NET, DirectX

**Power and Emissions**

Power Consumption	~2.5 W
Power Requirement	USB bus power, or external 5 V DC - 500 mA
Emissions Compliances	FCC Class BE, CE Certified
Hazardous Materials	RoHS, WEEE Compliant
Warranty	One (1) year

**System Requirements**

Recommended PC Specs	<ul style="list-style-type: none"> <li>• Pentium 4, 1.3 GHz or higher</li> <li>• 512 MB RAM</li> <li>• 60 MB hard drive free space or more</li> <li>• USB 2.0 Port</li> <li>• Windows XP, Vista or 7</li> </ul>
----------------------	---

