



### VGA CCD USB 2.0 Camera





High Resolution CCD Astrophotography Camera

# Outline

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.

With 640x480 resolution and on-board processing, the SKYnyx2-0 delivers outstanding image quality.



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).

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.

Capture clear, crisp, planetary, lunar and solar images with the SKYnyx2-0.

### **Performance Features**

- The high-speed USB 2.0 interface eliminates a framegrabber and facilitates ease of installation on both laptop and desktop computers
- 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 640x480 resolution, with no compression
- Maximum frame rate exceeds 100 fps with binning and ROI
- □ Select 8 & 12-bit pixel data modes
- The RGB data captured through each pixel contains 36-bits of color image information resulting in 4096 intensity values
- Both custom design services and a Software Developer's Kit (SDK) 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™ 98 SE, Windows ME, Windows 2K, Windows XP, and Windows Vista operating systems
- □ Full one (1) year warranty

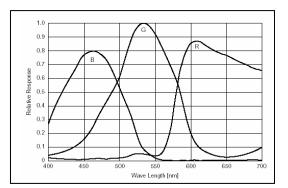
Image taken by Rainer Ehlert

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# **Specifications**

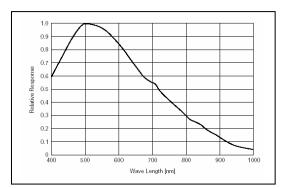
### Camera Sensor

| Image Sensor           | 1/3" Sony ICX424 VGA color or monochrome<br>progressive scan CCD sensor 5.8mm x 4.9mm array |
|------------------------|---|
| Effective Pixels       | 640x480, 7.4µm square pixels  |
| Frame Rate             | 60 fps at full resolution, higher fps with binning and ROI                                  |
| Dynamic Range          | >60dB   |
| Digital Output         | 8 and 12-bit  |
| Read Noise             | 10 e- rms   |
| Dark Current           | <1 e-/s   |
| Binning Options        | 2x2   |
| Camera Controls        |   |
| Mass                   | 320g  |
| Power Requirement      | USB bus power, or external 5VDC - 500mA   |
| Power Consumption      | ~2.5Watts   |
| Operating Temperature  | 0°C to +50°C  |
| Operating Humidity     | 5%-95%, Non-condensing  |
| Integration Time       | 1/1000 to 16 sec.   |
| Shutter                | Global Shutter  |
| ROI                    | User Selectable   |
| Auto Exposure          | Automatic / Manual  |
| White Balance          | Automatic / Manual  |
| Gain                   | Programmable / 1 to 10x optimizable   |
| Interface Connector    | Standard USB 2.0 high-speed interface   |
| Dimensions (W x H x D) | 2.52 x 3.85 x 1.68 inches   |
| Lens Mount             | T-Mount   |



SKYnyx2-0

#### Color Response Curve



Mono Response Curve

Recommended PC Specs:

- Pentium 4, 1.3GHz or higher
- 512Mb RAM

- 60 MB hard drive free space or more ٠
- USB 2.0 Port
- · Windows XP or Vista

Minimum PC Specs:

- 600MHz Processor
- 256Mbytes of SDRAM
- 20 MB hard drive free space
- USB 2.0 Port
- Windows 98 or ME

Product Includes:

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

### **Ordering Information**

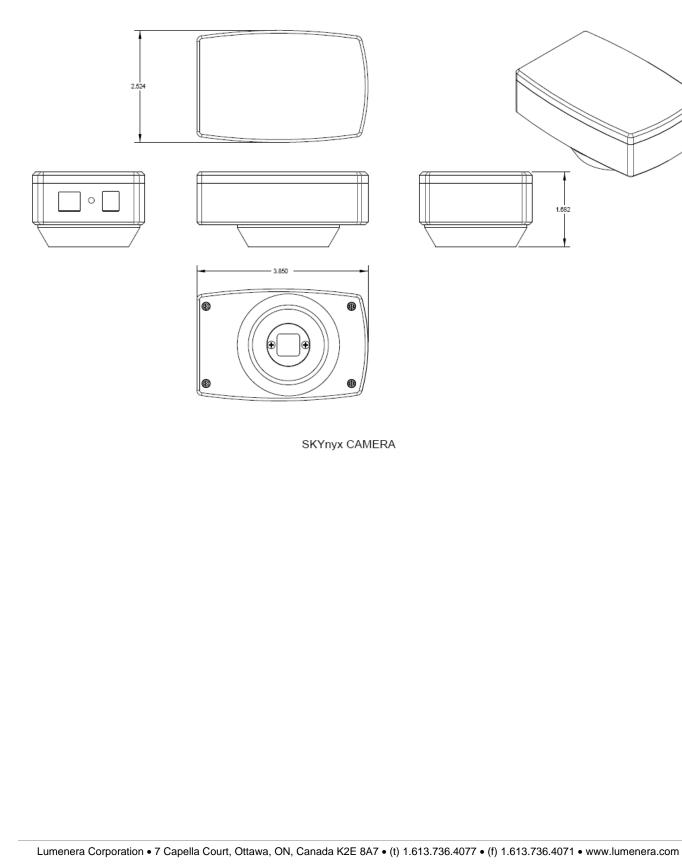
SKYnyx2-0C – Color Camera SKYnyx2-0M – Monochrome Camera

### Full customization available to meet your exact needs!

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# **Mechanicals**

# SKYnyx2-0



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