SKYnyx*2-2*

High Sensitivity, Low noise,

2.0 Megapixel CCD USB 2.0

Astrophotography Camera

High Resolution Images

Lumenera's SKYnyx*2-2* 2.0 megapixel CCD digital camera is specifically designed for lunar, solar and planetary imaging, featuring high sensitivity, low noise and fast frame rates. With 1616 x 1232 resolution and on-board processing, the SKYnyx*2-2* delivers outstanding image quality.

Superior Low Noise Ratio

Providing exceptional sensitivity with low noise characteristics, the SKYnyx*2-2* is the powerhouse in astrophotography. This USB 2.0 camera is based upon Lumenera's highly acclaimed and successful INFINITY*2-2* scientific microscopy camera. Its rugged, high quality anodized aluminum enclosure ensures this camera will serve your imaging needs for years to come. Product highlights include ROI, binning, and a dynamic range of >66 dB.

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.

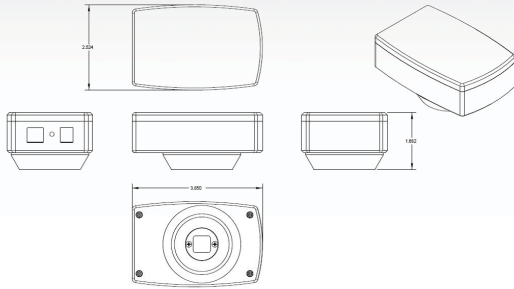## Superior Technical Assistance Center

SKYnyx*2-2* 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.
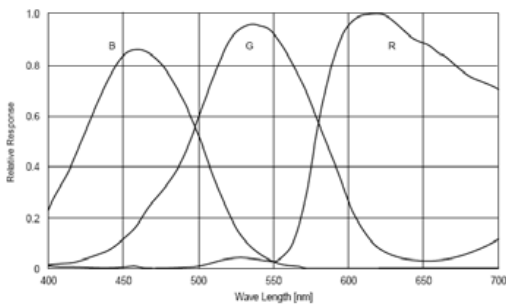
Features

- Excellent sensitivity and low noise characteristics of the SKYnyx*2-2* 2.0 megapixel CCD image sensor enable users to capture high quality images

- 12 fps at full 1616 x 1232 resolution

- Maximum frame rates exceed 30 fps with binning and ROI with no compression

- Select 8 and 12-bit pixel data modes

- Dynamic range of >60 dB for longer exposures

- 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

- Small custom design services Software Developers Kit are available to help with unique design requirements and software integration

- SKYnyx*2-2* captures images through our 3rd party software partners

- SKYnyx*2-2* cameras are software compatible with Windows XP, Windows Vista and Windows 7, 32 and 64-bit operating systems
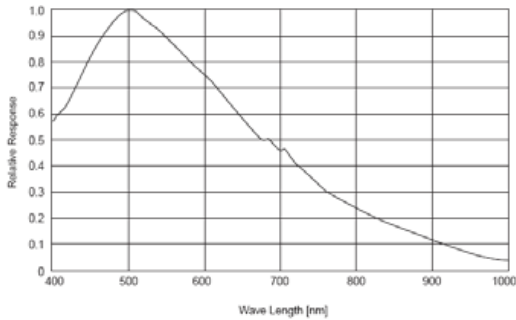
- Full one (1) year warranty

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Mechanical Drawing

Color Quantum Efficiency Curve

Monochrome Quantum Efficiency Curve

Ordering Options	
SKYnyx*2-2*M	2.0 MP CCD Enclosed Monochrome Camera
SKYnyx*2-2*C	2.0 MP 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	
SKYnyx*2-0* digital camera for USB 2.0	
CD-ROM with drivers	
2 m USB 2.0 Cable	

Sensor Specifications	
Image Sensor	Sony ICX274, CCD, color or mono progressive scan
Optical Format	1/1.8"
Active Area	7.1 x 5.4 mm
Pixel Size	4.4 x 4.4 µm
Resolution	1616 x 1232 pixels
Camera Specifications	
Frame Rate	12 fps at full resolution, higher with binning & ROI
Bit Depth	8 or 12-bit
Binning Modes	2 x 2, 4 x 4
Exposure Control	Manual and automatic control
Gain Range	1.0 to 10 x programmable
White Balance	Manual and automatic control
Camera Characteristics	
Dynamic Range	>66 dB
Read Noise	12 e- rms
Dark Current Noise	<2 e-/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	• Pentium 4, 1.3 GHz or higher • 512 MB RAM • 60 MB hard drive free space or more • USB 2.0 Port • Windows XP, Vista or 7
Minimum PC Specs	• 600 MHz Processor • 256 MB of SDRAM • 20 MB hard drive free space • USB 2.0 Port • Windows XP 32-bit

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