



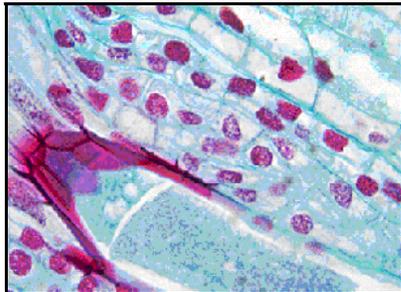
## 11 Megapixel CCD USB 2.0 Camera

Large Format High Resolution Digital CCD Microscopy Camera for Quantitative Image Analysis

## Outline

### *Ultra-high resolution and low-light performance!*

Lumenera's INFINITY4-11 digital CCD camera is based on the Kodak KAI-11002 10.7 megapixel sensor. Matching the large field of view of a 35mm camera, this USB 2.0 camera offers 3.5 frames per second at full 4008 x 2672 resolution, fast 60 fps through binning and ROI, and on-board processing for superior image quality. The INFINITY4-11 boasts excellent color rendition, making it ideal for life science, clinical, and industrial applications.



Live video preview provides for real-time focus while auto exposure and auto white balance efficiently capture your optimal image. A USB 2.0 digital interface ensures a simple plug-and-play installation. No framegrabber required. Capture high quality images through Lumenera's INFINITY ANALYZE – an advanced image capture, measurement and processing software package that is included with your camera. The INFINITY4-11 can also be fully integrated with other third-party imaging applications through our TWAIN driver and MAC plug-in.

A custom coupler engineered for all microscope models is available for the INFINITY4-11. This F-mount coupler allows you to take full advantage of this high resolution camera by ensuring that the entire 43mm field of view is visible. For more information please refer to the Large-Format Custom Coupler datasheet available on our website.

The INFINITY4-11 camera 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.

## Performance Features

- Large format 10.7 megapixel CCD sensor
- Excellent sensitivity with high fidelity color reproduction
- Custom coupler for all microscope models now available
- Progressive scan with electronic global shutter
- High-speed USB 2.0 interface eliminates a framegrabber and facilitates ease of installation on both laptop and desktop computers
- Ideal for the most demanding brightfield and darkfield microscopy applications, including clinical pathology and cytology, histology, life science and geology
- Full color sub-windowing allows for rapid focus and scanning of samples: 3.5 fps at full 4008X2672 resolution, 60 fps with binning and reduced preview resolution
- Selectable 8 and 12-bit pixel data modes
- MAC compatible
- The RGB data captured through each pixel contains 36-bits of color image information resulting in 4096 intensity values
- Capture high quality images with INFINITY ANALYZE - an advanced image capture, measurement and processing software package
- The INFINITY4-11 has a compact design equipped with an F-Mount, facilitating installation on all microscope configurations including upright, inverted and stereo (with coupler)
- INFINITY4-11 cameras are software compatible with Windows 2K, Windows XP, Windows Vista and Mac OS 10.4 operating systems
- Full one (1) year warranty

# Specifications

# INFINITY 4-11

## Camera Sensor

Image Sensor	35mm large format Interline Kodak KAI11002 10.7 megapixel color or monochrome progressive scan CCD sensor
Effective Pixels	4008x2672, 9µm square pixels
Frame Rate	3.5 fps at full resolution, 60 fps with binning and ROI
Dynamic Range	65dB
Digital Output	8 and 12-bit
Readout Frequency	32 MHz

## Camera Controls

Dimensions (W x H x D)	3.50" x 3.85" x 4.09"
Mass	~940g
Power Requirement	External 12VDC – 2A
Power Consumption	~18.7 Watts
Operating Temperature	0° C to +50° C
Operating Humidity	5%-95%, Non-condensing
Integration Time	1/5000 to 364 ms.
Shutter	Progressive scan with global shutter
ROI	User Selectable through mouse click and drag
Binning Options	2x2, 3x3, 4x4
Auto Exposure	Automatic / Manual
White Balance	Automatic / Manual
Gain	Programmable / 1 to 10x
Interface Connector	Standard USB 2.0 high-speed interface
Lens Mount	F-Mount lens adapter (ordered separately)

## Recommended PC Specs:

- Pentium 4, 1.3GHz or higher
- 512 MB RAM
- 60 MB hard drive free space or more
- USB 2.0 Port
- Windows 2000, XP, Vista and Mac OS 10.4
- Quick Time V7

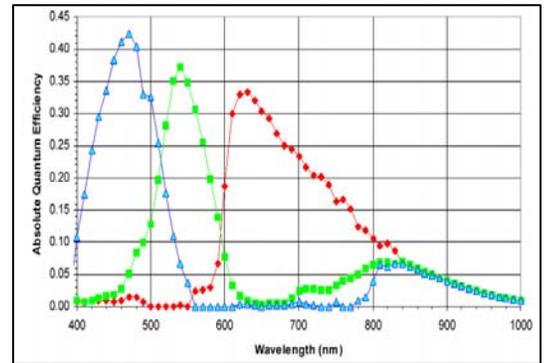
## Minimum PC Specs:

- 600MHz Processor
- 256 MB of SDRAM
- 20 MB hard drive free space
- USB 2.0 Port

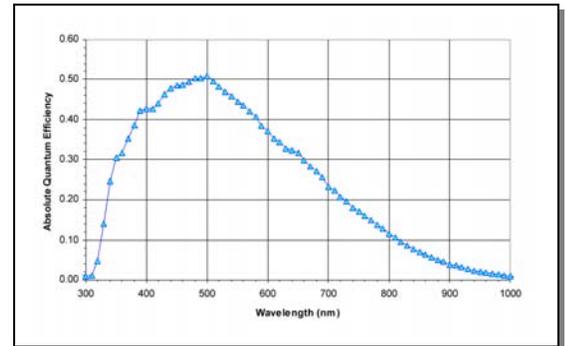
## Product Includes:

- INFINITY 4-11 digital camera for USB 2.0
- CD-ROM with INFINITY user application software
- TWAIN driver
- Documentation
- USB 2.0 cable
- International Power Supply – 12V. 2A. 24W

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

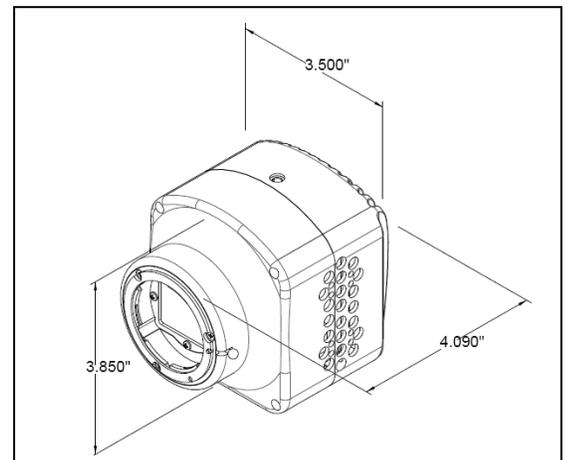


Color Response Curve



Mono Response Curve

## Mechanical Drawing:



## Ordering Information

INFINITY 4-11C – 11 MP CCD Color Camera  
INFINITY 4-11M – 11 MP CCD Monochrome Camera

Lu9019-XX – Large-Format Custom Coupler  
Please refer to the coupler datasheet for part numbers and ordering information