

# INFINITY4-11

11 Megapixel CCD USB 2.0 Camera

Large format, high-resolution scientific digital imaging for documentation and image analysis in Life Science, Clinical and Material Science Applications



## INFINITY4-11

The INFINITY4 USB 2.0 series is a large format, high resolution solution specifically designed for macro applications involving large fields of view. INFINITY4-11 digital CCD camera is based on the Kodak KAI11002 10.7 megapixel sensor. Highlights include 3.5 frames per second at full 4008x2672 resolution, fast 60 fps through binning and ROI, and on-board processing for superior image quality with the field of view of a 35mm camera.

### Superior Sensitivity and Color Reproduction

Years of experience in the microscopy market have allowed Lumenera to develop specialized color algorithms ensuring excellent color reproduction. In addition, the software included with all INFINITY cameras allows the adjustment of all facets of the live preview. This allows users to apply their personal preferences to each image. For lower light applications, the Kodak CCD sensor has an extremely high dynamic range, resulting in excellent camera sensitivity.

### Full Image Analysis Software Included

INFINITY CAPTURE, an intuitive image capture program, and INFINITY ANALYZE, a full image analysis package offering; camera control, measurement, annotations, tiling and post capture enhancement, are both included. Camera and software combined to create a complete microscopy imaging solution for your application.

### USB 2.0 Plug-and-Play Interface

Sharing and installation of one or more cameras on a single computer is quick and simple through a high-speed USB 2.0 interface.

### Third-Party Software Integration

INFINITY cameras are integrated into a variety of third-party software packages through direct drivers or with TWAIN/DirectX support.

### Mac Camera Software

A Mac camera driver and ImageJ plug-in are available for the INFINITY4-11.

### Superior Technical Assistance Center (TAC)

As a customer you gain access to the TAC group and knowledge base which provide full support for cameras, software and microscopy applications.

## Features

- Low noise progressive scan 10.7 megapixel Kodak KAI-11002 CCD sensor
- Full color sub-windowing allows for rapid focus and scanning of samples; up to 40 fps at 640x480 resolution
- GPI/O for control of peripherals and synchronization
- 8 or 12-bit pixel data modes
- Software compatible Windows XP, Windows Vista, Windows 7, Windows 8, 32 and 64-bit operating systems
- Includes TWAIN and DirectX/ Direct Show support

## Recommended Applications

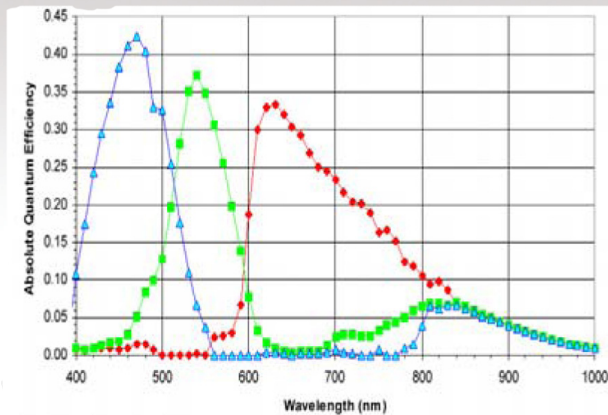
- Brightfield
- Darkfield
- Live Cell Imaging
- Histology
- Pathology
- Cytology
- Defect Analysis
- Semiconductor Inspection
- Metrology
- Gel Documentation
- Quantitative Analysis

## Warranty

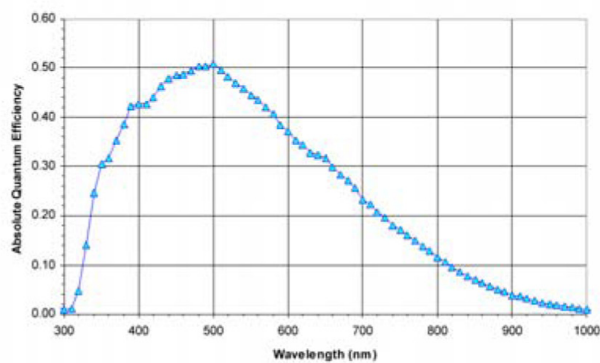
- Two (2) year parts and labor

## Microscope Coupler

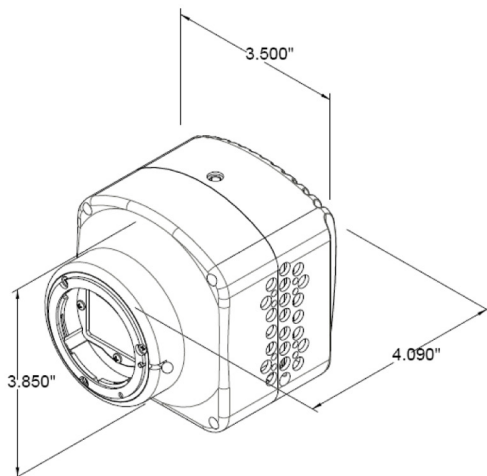
- Requires 1.0 x F-mount coupler



Color Response Curve



Mono Response Curve



Ordering options	
INFINITY ANALYZE MODULE	INFINITY ANALYZE advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)
LuSDKSW	Software Developer's Kit (Web Download)
LuSDKSW-DVD	Software Developer's Kit (DVD)
Power Supply	5 V DC, 2.5 A, 12.5 W Power Supply (Optional)

Sensor Specifications	
Image Sensor	35 mm large format Interline Kodak KAI11002 10.7 megapixel, CCD, color or monochrome progressive scan
Pixel Size	9 x 9 μm
Resolution	4008 x 2672 pixels
Readout Frequency	32 MHz
Camera Specifications	
Frame Rate	3.5 fps, 60 with binning and ROI
Bit Depth	8 or 12-bit
Exposure Control	Manual and automatic control
White Balance	Manual and automatic control
Camera Characteristics	
Gain	1 to 10x programmable
Dynamic Range	65 dB
Binning	2 x 2, 3 x 3, 4 x 4
ROI	User selectable through mouse and click drag
Mechanical Specifications	
Data Interface	USB 2.0
Lens Mount	F-Mount lens (ordered separately)
Dimensions	3.50 x 3.85 x 4.09 inch
Mass	940 g
Operating Temperature	0 to 50 °C
Integration Time	1/5000 to 365 ms
Operating Humidity	5 to 95 %, non-condensing
Camera Software	
Operating Systems	Windows XP, Windows Vista, Windows 7, Mac OSX, 32 and 64-bits
Power and Emissions	
Power Consumption	~18.7 W
Power Requirement	External 12 V DC, 2 A
Emissions Compliances	FCC Class BE, CE Certified
Hazardous Materials	RoHS, WEEE Compliant
Warranty	Two (2) 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 7</li> </ul>
Minimum PC Specs:	<ul style="list-style-type: none"> <li>• 600 MHz Processor</li> <li>• 256 MB of SDRAM</li> <li>• 20 MB hard drive free space</li> <li>• USB 2.0 Port</li> <li>• Windows XP</li> </ul>
Included In The Box	
INFINITY4-11	10.7 MP digital Camera for USB 2.0
LuNFSW-DVD	DVD with INIFINITY user application software (including INIFINITY ANALYZE), Twain driver and documentation
Lu802	2 m USB 2.0 Cable
Ordering Information	
INFINITY4-11CB	10.7 MP Large Format Color CCD Microscopy Camera
INFINITY4-11MB	10.7 MP Large Format Monochrome CCD Microscopy Camera
Lu9019-XX	Large-Format Custom Coupler - please refer to the coupler datasheet for part numbers and ordering information