



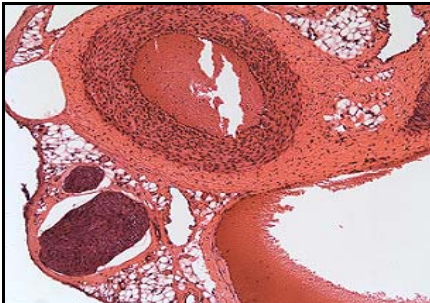
## 21 Megapixel CMOS USB 2.0 Camera

High Resolution CMOS Color or Monochrome  
Microscopy Camera for Qualitative Image Archiving

## Outline

Lumenera's INFINITYX-21 digital camera is designed to be a flexible microscopy tool for clinical, life sciences, materials sciences, and educational professionals where high-resolution images are essential. Variable resolutions up to 21 megapixel allow the user to take full advantage of their microscope optics in capturing the sharpest image conceivable.

Patented DeltaVU™ technology represents a breakthrough in sub pixel shifting imaging. The technology ensures more accurate color for detailed image documentation. The result is an increase in image resolution and precise color accuracy.



Live video preview provides for real-time focus, while auto exposure and auto white balance efficiently capture your optimal image. Software control provides exposures from 64us through 2 seconds. An intuitive user application provides camera control, while full integration to popular third-party imaging applications is available through our TWAIN drivers.

The USB digital interface ensures a simple plug and play installation – and one standard cable minimizes camera clutter. No framegrabber is required.

NEW this year, every INFINITY camera now includes [INFINITY ANALYZE](#) software for advanced camera control, image processing, measuring and annotation.

INFINITYX-21 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

- ❑ **21 megapixel resolution is achieved through shifting a 1/2" color or monochrome sensor and the 1280x1024 pixel array. Users will have the flexibility of choosing between 1.3, 5, 10 and 21 megapixel resolution taking full advantage of their research microscope optics in capturing precise detail**
- ❑ **Low noise results in remarkable color quality for the most demanding brightfield and darkfield applications including clinical pathology and cytology, life science and geology**
- ❑ **Full color sub-windowing allows for rapid focus and scanning of samples: 15 fps at 1280x1024 resolution, 120 fps 640x480 resolution**
- ❑ **8 & 10-bit pixel data modes**
- ❑ **The RGB data captured through each pixel contains 30-bits of color image information resulting in 1024 intensity values per color**
- ❑ **Camera control through an intuitive user TWAIN or INFINITY CAPTURE interface results in rapid image capture archiving and documentation for high throughput applications, demanding research environments and teaching facilities**
- ❑ **Easy and flexible installation on your PC through the standard USB 2.0 High-speed interface**
- ❑ **INFINITYX-21 cameras are software compatible with Windows 2K, Windows XP and Windows Vista operating systems**
- ❑ **Full one (1) year warranty**

# Specifications

# INFINITYX-21

## Camera Sensor

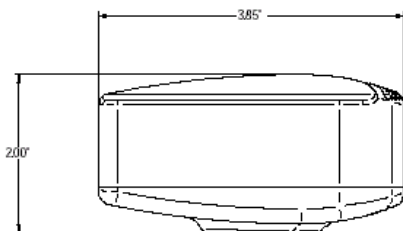
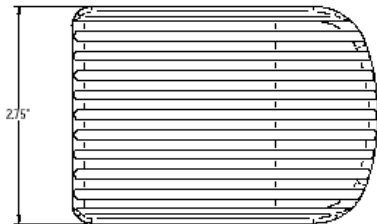
Image Sensor	1/2" format, color or mono, 6.6mm x 5.3mm array
Effective Pixels	1280 x 1024, 5.2um square pixels
Digital Output	8 and 10-bit uncompressed
Frame Rate	15 fps at 1280x1024, 120 fps at 640x480
Dark Current (e-/s)	20 e-
Dynamic Range	>60dB

## Camera Controls

Integration Time	1/1000 to 3 sec.
Shutter	Rolling shutter with single frame capture
Auto Exposure	Automatic / Manual
White Balance	Automatic / Manual
Gain	Programmable / 1 to 10X optimizable
Lens Mount	C-Mount lens adapter

## Operational Specs

Dimensions (L x W x H)	3.85 x 2.00 x 2.75 inches
Mass	300g
Power Requirement	USB bus power, or external 6VDC - 900mA
Power Consumption	~2.5Watts
Operating Temperature	0°C to +50°C
Operating Humidity	5%-95%, Non-condensing



### Recommended PC Specs:

- Pentium 4, 1.3 GHz or higher
- 512MB RAM
- +60 MB hard drive free space
- USB 2.0 Port
- Windows 2000 or XP

### Minimum PC Specs:

- 600 MHz Processor
- 256 MB of SDRAM
- 20 MB hard drive free space
- USB 2.0 Port
- Windows 2000

### Product Includes:

- INFINITYX-21 digital camera for USB 2.0
- CD-ROM with INFINITY user application software
- TWAIN driver
- Documentation
- USB 2.0 cable

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

## Digital Video Resolution

1280 X 1024
1,024 X 768
800 X 600
640 X 480

## Digital Video Frame Rate

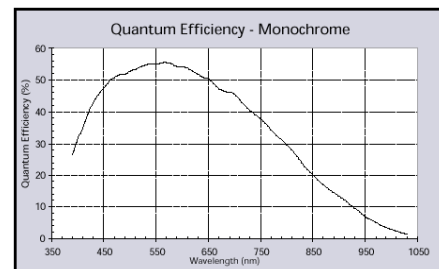
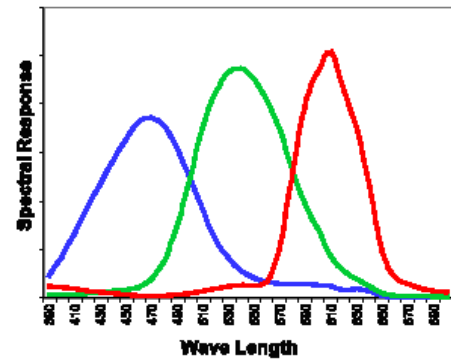
15 frames per second
48 frames per second
74 frames per second
120 frames per second

## Digital Still Image

1280 X 1024 / 1.3 million pixels	24 bit RGB: 3.8 MB
2560 X 2048 / 5.0 million pixels	24 bit RGB: 15 MB
3840 X 3072 / 10.0 million pixels	24 bit RGB: 34 MB
5120 X 4096 / 21.0 million pixels	24 bit RGB: 60 MB

## Computer Interface

Data Interface	High-Speed USB 2.0
Cable	Standard USB 2.0
Application Interface	Intuitive User Application
Application Support	TWAIN for 3 <sup>rd</sup> party integration



## Ordering Information

INFINITYX-21C – Color Camera

INFINITYX-21M – Monochrome Camera

LuSDK

– Software Developer's Kit and Accessories