



## 21 Megapixel CMOS USB 2.0 Camera

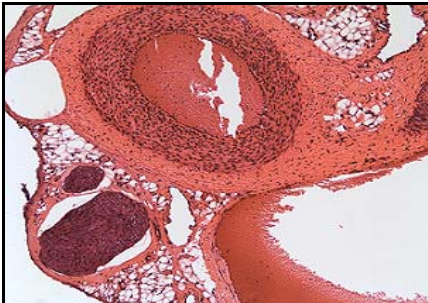
High Resolution CMOS Color or Monochrome Microscopy Camera for Qualitative Image Archiving

**Now DOUBLE THE SPEED  
with a new high-speed driver!**

## Outline

Lumenera's INFINITYX 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 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: 30 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 cameras are software compatible with Windows 2K, Windows XP and Windows Vista operating systems**

# Specifications

# INFINITYX

## 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          | 30 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:

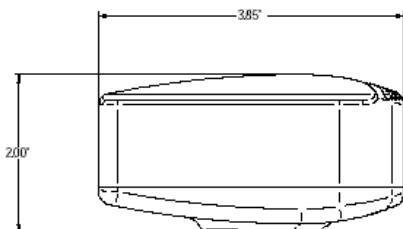
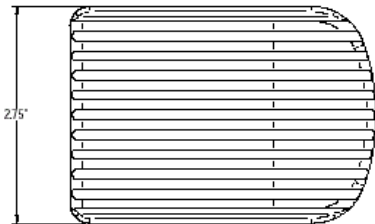
- Pentium 4, 1.3 GHz or higher
- 512MB RAM
- +60 MB hard drive free space
- USB 2.0 Port
- Windows 2000 or XP

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



## Digital Video Resolution

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

## Digital Video Frame Rate

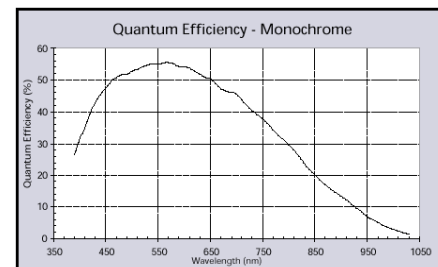
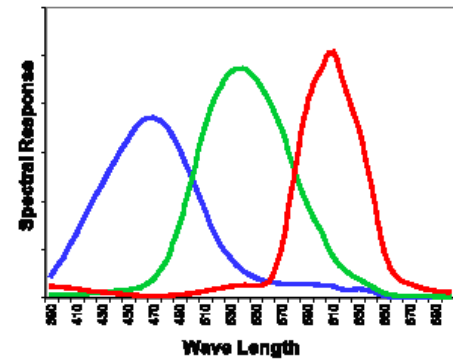
30 frames per second  
48 frames per second  
74 frames per second  
120 frames per second

## 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

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