

# DK-X2100 Digital CMOS Video Camera



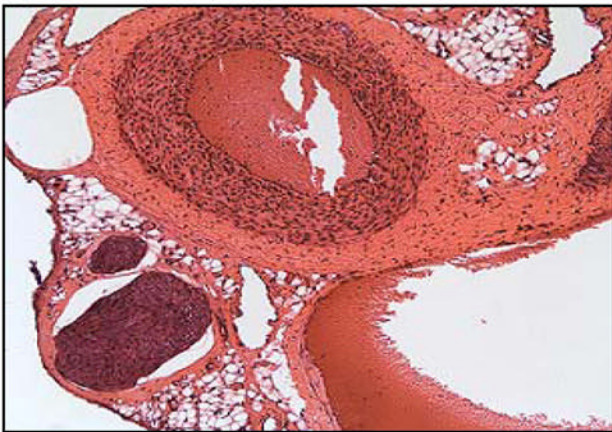
## 21 Megapixel CMOS USB 2.0 Camera

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

## Outline

The DK-X2100 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 megapixels 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.

## 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 SXGA resolution, 60 fps VGA 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
- ❑ DK-X2100 cameras are software compatible with Windows™ 98 SE, Windows ME, Windows 2K and Windows XP operating systems

# Specifications

## 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, 60fps 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                  |

## Digital Video Resolution

|             |                      |
|-------------|----------------------|
| 1280 X 1024 | 15 frames per second |
| 1,024 X 768 | 24 frames per second |
| 800 X 600   | 37 frames per second |
| 640 X 480   | 60 frames per second |

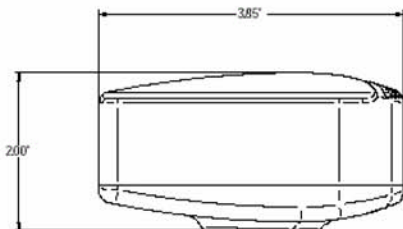
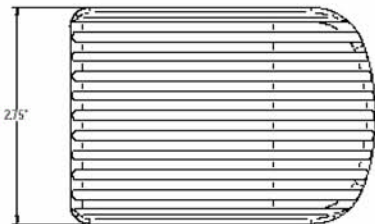
## Digital Video Frame Rate

## 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 |



### Recommended PC Specs:

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

### Minimum PC Specs:

- 600MHz Processor
- 256Mbytes of SDRAM
- 20GB hard drive free space
- USB 2.0 Port
- Windows 98 or ME

### Product Includes:

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

