



21 Million Pixels and Streaming Video

The Infinity X™ is designed to satisfy the unique and varied demands of digital microscopy. It offers exceptional fast streaming video at an incredibly high-resolution on the computer monitor as well as outstanding resolutions on still images.

The impressive performance and revolutionary resolution of the Infinity X is achieved by combining state-of-the-art sensor design with innovative engineering skills.

A ground-breaking resolution of up to 21 million pixels in precise colour puts the Infinity X in a class all by its own. By integrating DeltaVu™, a highly successful, patent pending technology invented by DeltaPix, these incredible resolutions are achieved.

DeltaVu

DeltaVu™ is a revolutionary new technology designed to dramatically increase the image resolution of a digital camera. The Infinity X has a 1.3 million pixels sensor with Red, Green and Blue colour filters placed in standard Bayer pattern.

Through a process of combining precise position information of the sensor, and capturing additional images, by moving the sensor only fractions of the length of a pixel, the DeltaVu technology allows calculation of finer details than the size of a pixel.

This process also includes the same detailed reproduction at all pixel locations in each of the three colour planes, Red, Green or Blue. The result is an impressive image file, where 63 million pixels have captured the information, 21 million pixels for each of the 3 colours (precise colour).

Easy-to-use

The Infinity X is a small and compact digital camera with a standard C-mount interface for flexible attachment to microscopes.

Installation of the electronic connection is also very simple by connecting a single standard USB 2.0 cable between the camera and the computer. The Infinity X uses the USB 2.0 cable for power, control information and the transmission of data. The very low power consumption of the Infinity X has made it possible only to use a single cable.

Fast video

The use of the 480 Mbits/s high-speed architecture of the USB 2.0 standard has allowed the Infinity X to deliver fast streaming colour video in high-resolution on the monitor of the connected computer.

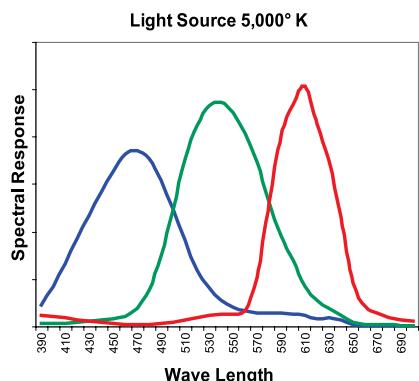
With a rate of 60 frames per second the microscopy image appears on the monitor without delay. The fast live image makes the process of focusing and interactively optimizing the image very easy.

Features:

- Outstanding performance of a small and compact digital camera for microscopy with extremely high-resolution and exceptional fast live images
- Ideal camera for documentation and analyses for an exceptionally wide-ranging spectrum of applications
- Streaming live video on computer monitor through the high-speed USB 2.0 bus at 480 Mbits/s
- Fast streaming colour video images in high resolution with 60 fps at 640 x 480 pixels resolution
- Selectable video resolution in 4 steps from 1,280 x 1,024 pixels
- Perfect image and colour quality with the finest detail
- Resolution up to the extreme of 21 million pixels in precise colour
- Selectable resolution between 1.3 and 5.2, 12 and 21 million pixels in DeltaVu colour
- Automatic and manual exposure and sensitivity control
- Superior anti-blooming (overexposure) behaviour
- Easy and flexible daily use with dynamic insertion and removal of the camera to PC and notebook through a single standard USB 2.0 high-speed interface
- Small compact microscopy camera with optical C-mount for easy attachment to a microscope
- Tripod receivable for mounting on stands for macro photography
- Silent operation without noisy fan due to very low power consumption
- Intuitive user interface with powerful and easy-to-use image capture and processing functions
- Standard TWAIN driver for integration to 3rd party imaging application and software
- Standard DirectX driver for integration to 3rd party video application and software
- Support for the Dicom file standard

Infinity X specifications:

Imager	
Effective size:	1/2" format 6.7 mm x 5.3 mm
Colour filter:	Red, Green, and Blue in Bayer pattern
Effective pixels:	1,280 x 1,024 pixels (1.3 million)
Pixel size:	5.2 x 5.2 microns
Dynamic range:	>60 dB
Dark current noise:	20 electrons/pixel/second
Exposure time:	0.1 milliseconds to 6 seconds
Sensitivity:	ISO 200 to 600
Binning:	Red, Green, Blue and colour
Exposure sensitivity:	Adjustable from 1 times to 3.7 times
Exposure mode:	Automatic, manual or converging
Colour balance:	Automatic, manual or spot white balance
Shutter:	Electronic rolling shutter



Digital video	
Resolution:	1,280 x 1,024 pixels 15 frames per second
	1,024 x 768 pixels 24 frames per second
	800 x 600 pixels 37 frames per second
	640 x 480 pixels 60 frames per second

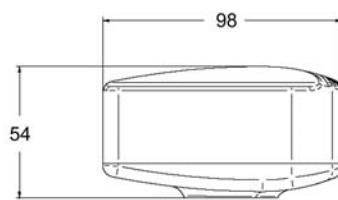
Digital still image	
Single exposure:	1,280 x 1,024 pixels (1.3 million pixels) 24 bit RGB: 3.8 MB 30 bit RGB: 7.6 MB
Multiple exposures:	2,560 x 2,048 pixels (5.2 million real pixels) 24 bit RGB: 15 MB 30 bit RGB: 30 MB
	3,840 x 3,072 pixels (11.8 million real pixels) 24 bit RGB: 34 MB 30 bit RGB: 68 MB
	5,120 x 4,096 pixels (21.0 million real pixels) 24 bit RGB: 60 MB 30 bit RGB: 120 MB

Data format & compression	
Digital output:	24 bit uncompressed TIFF-RGB (8 bits per colour)
	30 bit uncompressed TIFF-RGB (10 bits per colour)
	24 bit loss-less compressed JPEG2000 (8 bits per colour)
	24 bit compressed JPEG (8 bits per colour)
	24 bit uncompressed DICOM (8 bits per colour)
	24 bit uncompressed video in AVI format (8 bits per colour)

Computer & software	
Data interface:	480 Mb/s high-speed USB 2.0 architecture
Cable:	Standard USB 2.0 cable with series "B" connector
Power:	Direct powered from the USB 2.0 bus
Application interface:	Intuitive, easy-to-use user application
Application support:	TWAIN driver for integration to 3rd party imaging applications DirectX driver for integration to 3rd party video applications

Operational requirements	
Temperature:	0° C to +40° C
Humidity:	15 to 80 % RH (non-condensing)

Physical data	
Optical mount:	Standard C-mount
Mechanical mount:	Tripod receivable for macro photography
Housing:	Aluminium with cooling fins
Height:	54 mm
Width:	70 mm
Depth:	98 mm
Weight:	425 g
Compliance:	CE, FCC Class B



Minimum computer platform

Pentium III, 1.3 GHz or similar
256 MB RAM
15 GB free harddisk space
USB 2.0 Port
Windows XP, Windows 2000

Product includes:

- Infinity X digital camera for USB 2.0
- CD-ROM with
 - Stand-alone user application
 - TWAIN driver
 - DirectX driver
 - Documentation
- USB 2.0 cable (2.0 m)

Optional:

- Software Developer Kit (SDK) for developing deep integration with other software applications

Specifications and products are subject to change without any notice or obligation on part of DeltaPix Aps. May 2004.
DeltaPix, Infinity X and DeltaVu are trademarks of DeltaPix Aps. All other brands or product names are trademarks or registered trademarks of their respective holder. © 2004 DeltaPix Aps.



Your DeltaPix contact