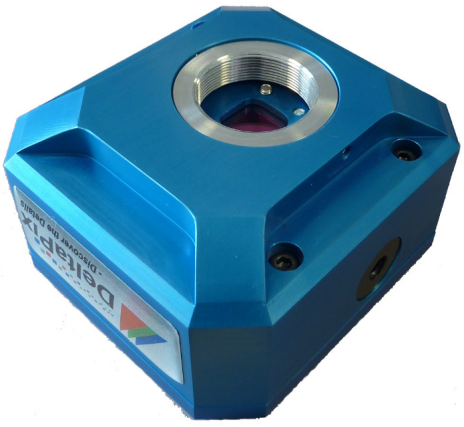
DeltaPix
- Discover the Details

Invenio 2DII

Digital camera for microscopes
USB 2.0
Windows Vista / XP / 7

Features:

- Excellent performance of a small and compact digital camera for microscopy with fast live images and high-resolution still image
- Ideal camera for documentation and analysis for a wide range of applications
- Streaming live video on computer monitor through high-speed USB 2.0 bus at 480 Mbits/s
- Very low noise and high sensitivity
- Perfect image and colour quality with fine details
- Resolution of up to 2 megapixel in colour
- Automatic and manual exposure and sensitivity control
- 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 receptacle for mounting to stands for macro photography
- Silent operation without noisy fan due to very low power consumption
- Free “DeltaPix InSight LE” Intuitive user software with powerful and easy-to-use image capture and processing functions.
- Software is upgradable with modules
- Back focus adjustment
- Manufactured in Denmark



Fast Streaming Video, high sensitivity and unique colour fidelity.

Invenio 2DII design
The Invenio 2DII camera, is designed with focus on high sensitivity, colour fidelity and image quality. All Invenio DII cameras are using the highest quality Sony CCD sensors, which, when it comes to colour fidelity, is still superior to CMOS sensors.

Easy-to-use
All Invenio 2DII uses a standard C-mount interface for universal use and flexible attachment to microscopes.
Installation of the electronic connection is very simple through connecting of a single standard USB 2.0 cable, between the camera and the computer, for power, control information and to transmit data.

Fast Video
The use of the 480 Mbits/s high-speed architecture of the USB 2.0 international standard, deliver fast streaming colour video in high resolution on the monitor of the connected computer. The high quality CCD sensors in the Invenio 2DII cameras, are designed with focus on the highest quality, but also with the goal of achieving good update rates. The result is an update rate which is perfect for most microscope aplications, and with the high sensitivity of these cameras, the “real life” update rate, is often faster than with so called high speed, but less sensitive cameras.

Direct Digitalization
The digitalization of the image signal direct at the sensor allows high transfer speed and reliable data communication with no loss of information or reduction in image quality.

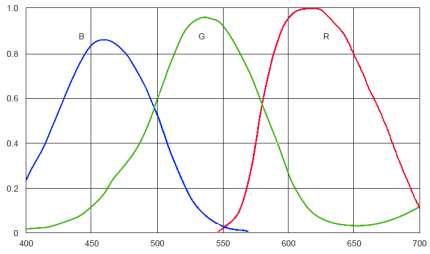
Comfortable Operation
The powerful “DeltaPix InSight LE” software included with all Invenio cameras provides a wide range of image capture and archiving functions.
Easy handling and a user-friendly application plays an important role in the design of the product, making sure that both first-time users and experienced, creative users can take full advantage of digital imaging.

Ideal for low light applications
The extreme low noise and the possibility to use exposure times of several minutes, makes the Invenio II CCD cameras ideal also for low light applications like fluorescence. For these applications it is often necessary to choose between fast frame rates for easy focussing or long exposure times for high sensitivity. With Invenio 2DII this can be combined, as the camera can use high gain / low exposure = fast framerate, in live mode, and then automatically convert gain to long exposure in snapshots, in order to achieve the highest possible low noise image for archiving. This is a unique feature of all DeltaPix CCD cameras.

Invenio 2DII Specifications (Preliminary)

Imager

Effective size:	1/1.8” format CCD 7.0 mm x 5.3 mm
Colour filter:	Red, green and blue in Bayer pattern
Effective pixels:	1,600 x 1,200 pixels (2 million)
Pixel size:	4.4 x 4.4 microns
Dynamic range:	>65 dB
Exposure time:	0.01 milliseconds to 419 seconds
Binning:	No
Exposure sensitivity:	Adjustable from 1 to 6 times
Exposure mode:	Automatic, manual or converging
Colour balance:	Automatic, manual or spot white balance
Shutter:	Electronic global shutter



Digital Video

Resolution:	1,600 x 1,200 pixels (more than 8 fps)

Digital Still Image

Single exposure:	1,600 x 1,200 pixels (2 million pixels)

Data Format & Compression

Digital outout:	36 bit uncompressed TIFF-RGB (8 bits per colour)
	36 bit uncompressed TIFF-RGB (12 bits per colour)
	36 bit loss-less compressed JPEG2000 (8 bits per colour)
	36 bit compressed JPEG (8 bits per colour)
	36 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:	USB
Application interface:	Intuitive, easy-to-use user application
Application support:	DirectX driver for integration to 3rd party video applications

Minimum computer platform

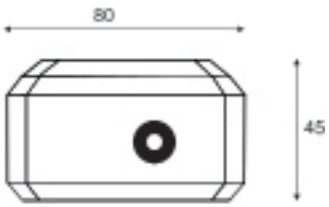
1 GB RAM
15 GB free harddisk space
USB 2.0 port
Windows XP, Vista, 7, 32 and 64 bit

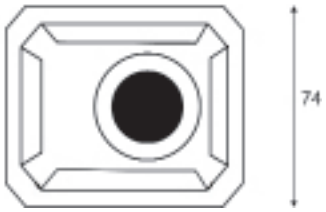
Operational Requirements

Temperature:	0°C to +50°C
Humidity:	5% to 95% RH (non-condensing)

Physical Data

Optical mount:	Standard C-mount
Mechanical mount:	Tripod receptable for macro photography
Enclosure:	Blue/grey Aluminium with tripod mount
Height:	45
Width:	80
Depth:	75
Weight:	360g
Compliance:	CE





Product Includes:

- Invenio 2DII digital camera for USB 2.0
- CD-ROM with
  - Stand-alone user application
  - DirectX driver
  - Documentation
- USB 2.0 cable (2.0m)

Optional:

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

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www.deltapix.dk