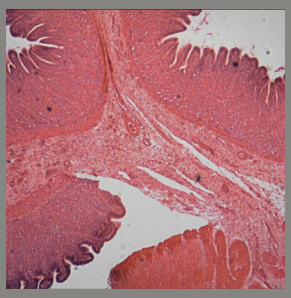
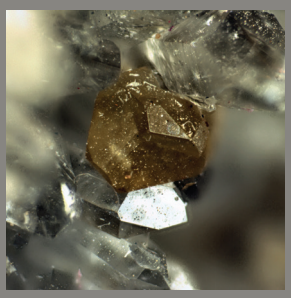
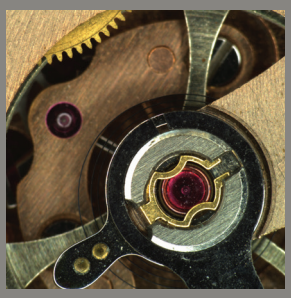
DeltaPix
- Discover the Details

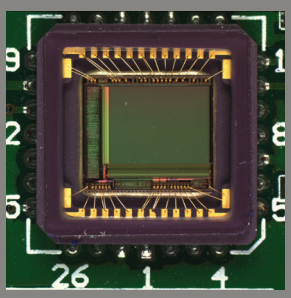
Invenio EIII Cameras

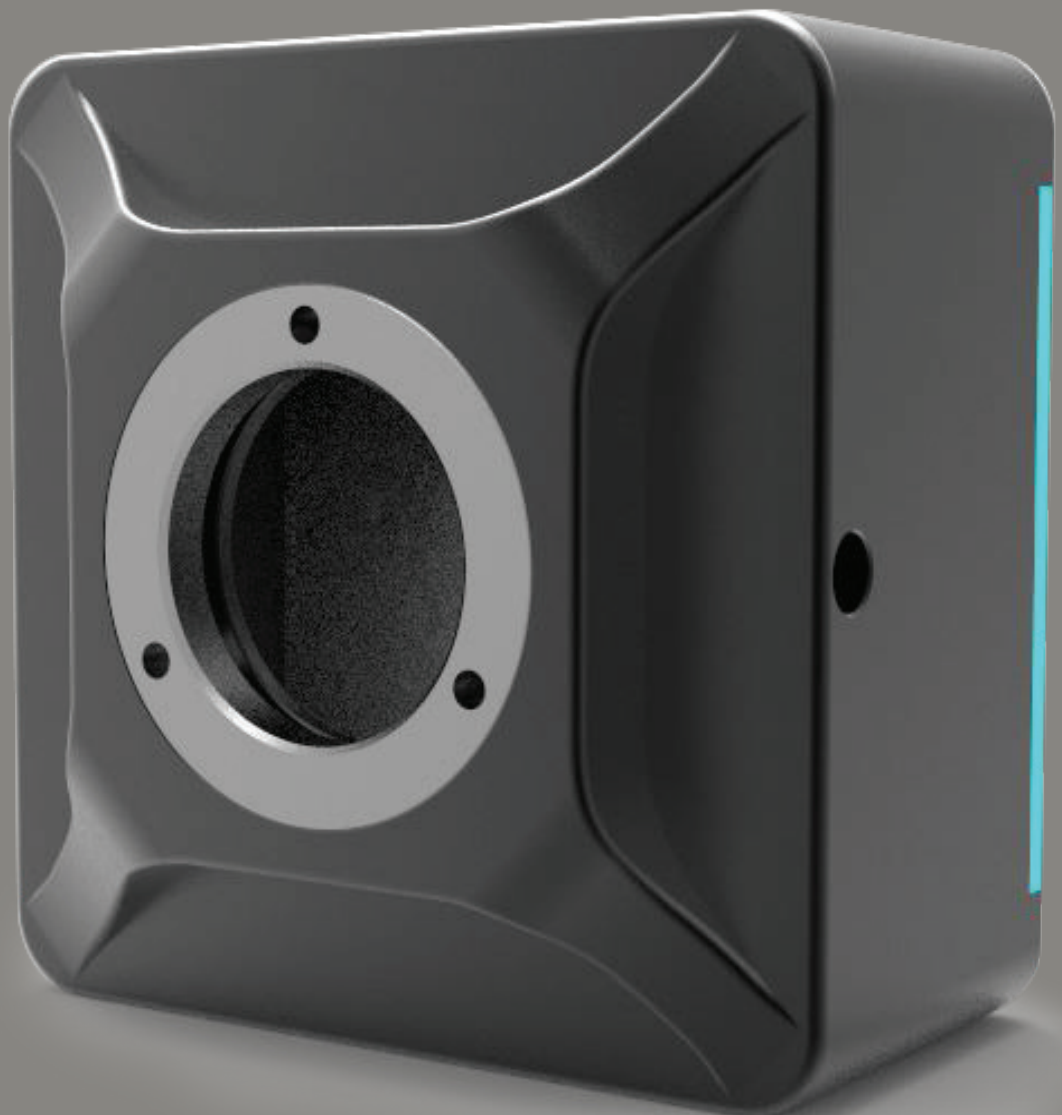
- High-resolution
- Crisp colors
- High-speed live video
- High-quality Sony sensor











This is an illustration of the camera house, the actual camera may look different.

Camera Models

DeltaPix EIII premium microscope cameras series offers fast and precise high-resolution live video stream as well as still images! User-friendly setup for everyday use, with a first in class price/performance ratio.

The new Invenio EIII premium cameras are designed with great attention to details and features. The Invenio EIII cameras comes in a housing design made to stand out visually as well as been practical and compact.

In addition to the new camera house, the Invenio EIII cameras are based on well-recognized and high-quality Sony sensors for excellent image quality sensitivity, color fidelity, and speed.

High-quality,cost-effective and flexible

The Invenio EIII microscope camera series has C-mount interface making them easily and cost efficiently fitted on most standard microscopes.

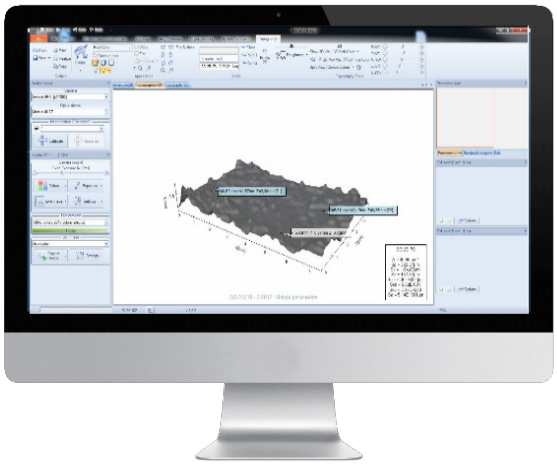
User-friendly Camera

Plug and play – the USB 3.0 interface provides high speed and ease of installation on any computer.
No need for external power supply, the Invenio EIII Microscope cameras uses the included USB cable for power, control and to data transmission.

Applications

The Invenio EIII series cameras comes in 4 different camera models and sensor size making this series versatile and suitable for many applications.

Typical applications: *✓ Documentation and publishing ✓ Material science ✓ Metrology ✓ Quality control ✓ Dark Field ✓ Bright Field ✓ Histology ✓ Pathology ✓ Semiconductor inspection ✓ Cytology ✓ Biology*



DeltaPix InSight Software

All Invenio EIII cameras Includes DeltaPix InSight which is a powerful platform for precise measurements and analysis.
DeltaPix InSight allows expansion with a multitude of modules, for a wide range of advanced applications with an easy-to-use user interface. Available modules, images stacking, HDR for wide dynamic images, 3D measurements/ 3D topography, Roughness measurement, stitching, Object Counting and much more.

Why choose Invenio EIII

Ultra-Low noise images

The Invenio EIII Microscope cameras are all designed with Sony's newest sensor type the Exmor™, which is a superior sensor type, especially because The Exmor™ sensors digitize the pixels before the column signals are multiplexed, thereby minimizing the noise signal significantly compared to standard CMOS sensors.

Designing the camera

Noise comes from the sensor itself, but also from the surrounding electronic circuits and the wires. By choosing components, wiring, grounding and shielding intelligently, DeltaPix has achieved to decrease noise levels significantly.

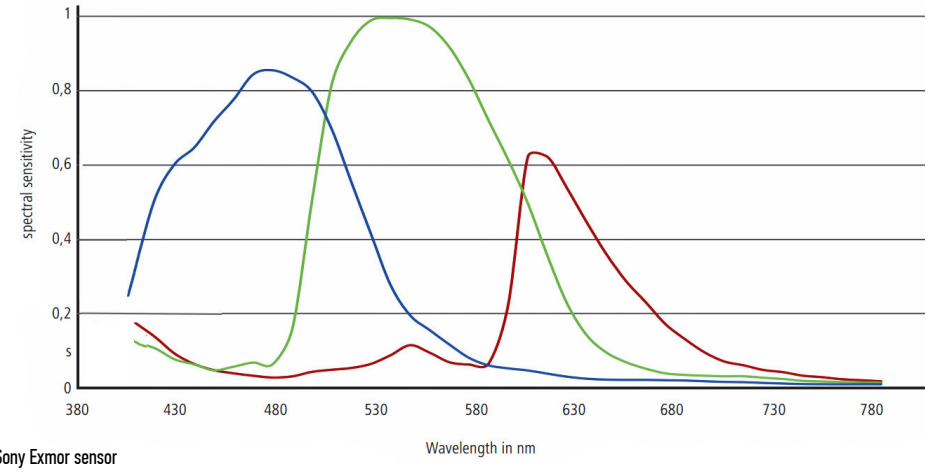
Smear-free images.

The special construction of the Exmor™ sensor allows the sensor to produce smear-free images unlike many other sensors, without the limited dynamic range and contrast known from traditional CMOS sensors.

Camera construction

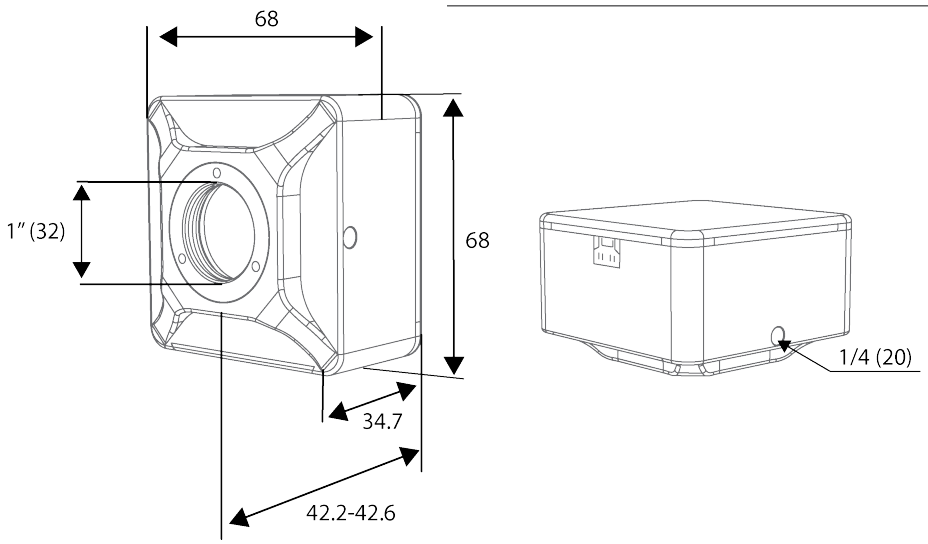
There is a huge difference between so called "machine vision cameras" and cameras designed and build for microscopy. In most Machine vison applications, "details" as colors, hot pixels, dust particles, user friendliness and likewise, does not matter much, as it's a machine which are looking at the images/video stream. For a dedicated microscope camera all these details matters a lot. Firstly, a microscope camera is typically physically larger in order to adapt more heat, keeping the sensor cool. The IR filter is of higher quality, free from small scratches and holes, which could create shadows in the image (DeltaPix inspects all filter and sensors surfaces carefully, a process which can last up to 2 hours. Around 20% of all filters are discarded during this process). Also even extremely small dust particles can create dark shadows in the image of a camera used for microscopy. For this reason, all DeltaPix microscope cameras are manufactured by DeltaPix in a dust free clean chamber to achieve unmatched clear, sharp and crisp images.

Spectral Sensitiviy



General performance from Sony Exmor sensor

Camera Dimensions



Features

Invenio EIII models

	Invenio 6EIII	Invenio 10EIII	Invenio 12EIII	Invenio 20EIII
Live preview resolution	3072 x 2048 @15FPS 1536 x 1024 @25FPS	3840 x 2560 @15FPS 3200 x 3200@ 15FPS 1920 x 1280 @ 35FPS 1600 x 1600 @ 35FPS	4000 x 3000 @20FPS 2048 x 1080@ 40FPS	5440 x 3648@15FPS 2736 x 1824@35FPS 1824 x 1216@60FPS
Still image resolution	6.3Mpixels (3072x2048) 1.57Mpixels(1536x1024)	10,2Mpixels (3200x3200) 9.83 Mpixels (3840x2560) 2.56Mpixels (1600x1600) 2.46Mpixels (1920x1280)	12Mpixels (4000x3000) 2.21Mpixels (2048x1080)	19.8Mpixels(5440x3648) 5Mpeixels (2736 x 1824) 2.2 Mpixels(1824x1216)
Sensor size	1/1.8" Sony Exmor 7.37mm x 4.92mm	2/3" Sony Exmor 9.15mm x 6.86mm	1/1.7" Sony Exmor 7.4mm x 5.55mm	1" Sony Exmor 13.06mm x 8.76mm
Pixel size	2.4µm x 2.4µm	2.4µm x 2.4µm	1.85µ x 1.85µm	2.4µ x 2.4µm
Exposure time	0.244 milliseconds – 2000 milliseconds	0.1 milliseconds – 15 seconds		
Gain	1-16	1-50		
Sensitivity	425mv with 1/30s	462mv with 1/30s	280mv with 1/30s	462mv with 1/30s
Shutter	Electronic rolling shutter			
Exposure mode	Automatic or Manual			
Color balance	Automatic, manual or spot white balance			
Data interface	USB 3.0			
Data format and compression	24-bit uncompressed Tiff, 24bit JPEG compressed and 24-bit loss-less compressed JPEG2000 24bit uncompressed video AVI format.			
Minimum PC requirements	Intel I5 (quad core) CPU 4 GB RAM 15 GB free hard disk space USB 3.0 port Windows 7,8 ,10 64 bits (Invenio 6EIII supports 32bis and 64bits)			
Optional	Software Developer Kit (SDK) for developing deep integration with other software applications. Twain Driver (Twain Driver for Invenio 10EIII is not available but can be developed on demand)			

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