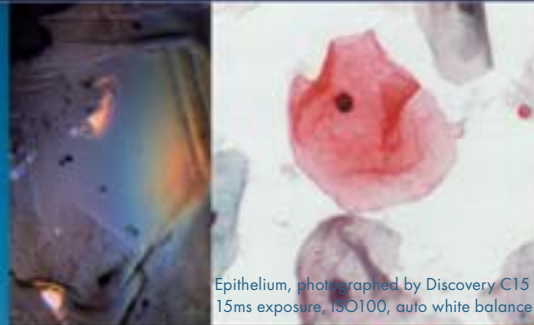


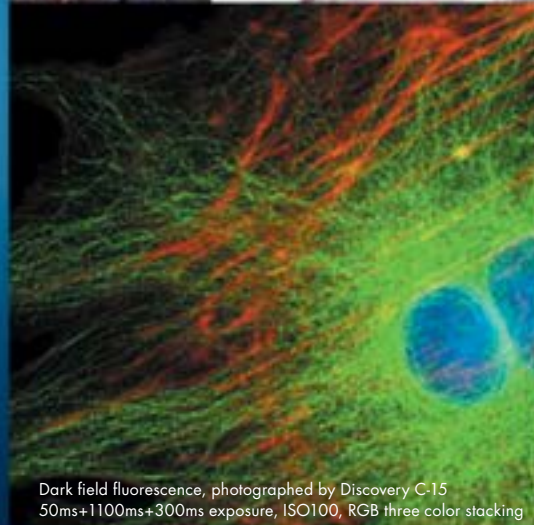


Discovery C15 Color **Camera**

SCIENTIFIC CMOS SENSOR



Epithelium, photographed by Discovery C15
15ms exposure, ISO100, auto white balance



Dark field fluorescence, photographed by Discovery C-15
50ms+1100ms+300ms exposure, ISO100, RGB three color stacking

Discover a new imaging experience with the C15 camera

Order # 26100-242

AVENINC.COM



Discovery C15

As the latest scientific and technological achievement, the brilliant performance of the Discovery C15 camera brings you a whole new imaging experience. Discovery C15 camera is particularly remarkable for the ultra low read-out noise level $3e^-$, robust dynamic range and ultra high sensitivity. All these features warrant high quality images when working at dark or bright field imaging. Fast live images (up to 21 frames per second at full resolution 1270x1030, 38 frames per second at low resolution) and exact color reproduction offer easy workflow and convenient use of this camera.

Specifications

Ultra low read-out noise:

3 to 5 times lower than the conventional CCD cameras

Excellent quantum efficiency:

30% to 50% higher than the conventional CCD cameras

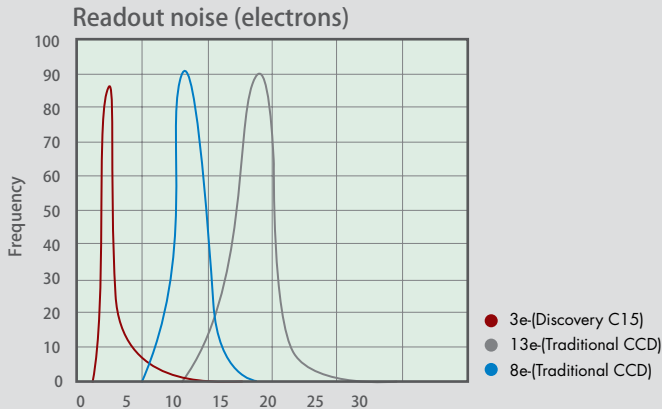
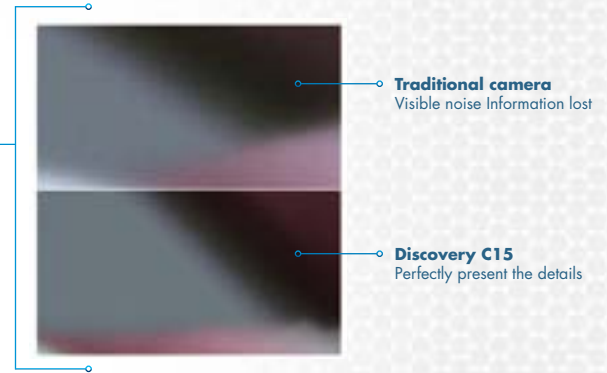
Exact reproduction of colors:

Produce more natural and smooth color images than the conventional CCD cameras.



Ultra low read-out noise level Perfectly present the details!

The correlated double sampling technique suppresses the Discovery C15 camera's read-out noise to a super low level 3e-RMS. And signal double row amplification AD conversion markedly improves the image dynamic range. Extraordinary high sensitivity and the high signal-to-noise ratio even in the high preview frame rate let you enjoy the images with finest details and outstanding quality whatever in bright field or dark field applications.



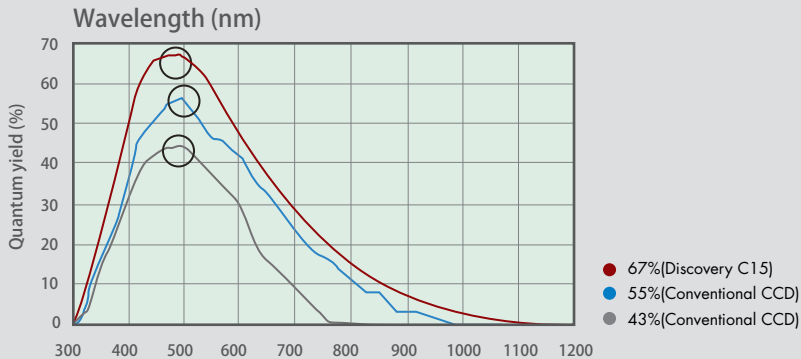
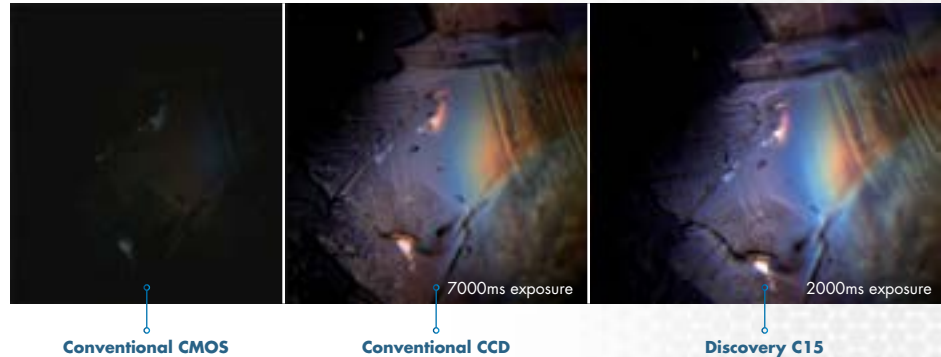
Compared with the traditional CCD cameras, Discovery C15 camera suppress the read-out noise to a extremely low level which is 3 to 5 times lower than the conventional CCD cameras. This low read-out noise level creates detail-rich, publication-quality images.

To the researchers who have high requirements about the image dynamic brightness transition, superior accuracy and finest details, Discovery C15 will provide the images beyond the expectation.



Excellent quantum efficiency Fast live image!

The quantum efficiency of the conventional CCD cameras is normally in the range of 40% to 60%. But the Discovery C15 camera's quantum efficiency is up to 67% - making this camera ideal for dark field imaging.



Compared with the conventional CCD cameras, Discovery C15 elevates the quantum efficiency up to 67%! The high sensitivity brought by this brilliant quantum efficiency warrant you excellent images in dark field imaging.

Whatever in fluorescence or night lighting, in glimmer or the reflected light, the photographer needs to capture the accurate specimen images which can't always be bright and clear enough. Even in this kind of low contrast or poor lighting, Discovery C15 still offers distinct and sharp images. Discovery C15 will become the priority choice for the first-class low light detection equipments.



Wide dynamic range

The ultra low read-out noise level and the high full-well capacity make Discovery C15 camera's dynamic range reach an extremely high level 4500: 1. It is 50% higher than the professional CCD (3000: 1). This feature offers softly graded and dynamic quality images. The most crucial significance is to help you find the secret in the images. And that is why we name this camera as Discovery.

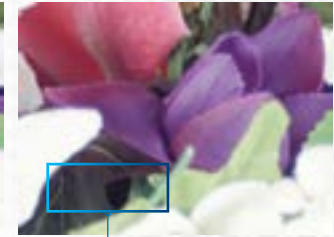
The vast dynamic range of Discovery C15 always helps you get the finest details in the lightest and darkest areas of an image. This offers the outstanding quality images which the regular good images can't provide. Discovery C15, the best choice for professional testing inspectors and image analysts, makes the work easy and high efficiency.

Conventional Camera



8 Bit, low dynamic range

Discovery C15 Camera



16 Bit, high dynamic range

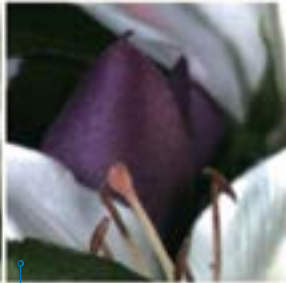
Exact color reproduction

DSLR cameras



Color over garish
Image loss of details

Conventional CMOS cameras



Dull color

Conventional CCD cameras



Discovery C15 Camera

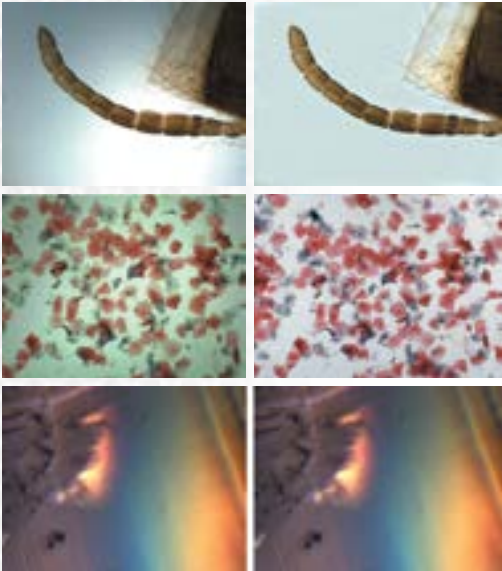


Discovery C15 provides the highest color fidelity. The image color transition is more natural and smooth than the conventional CCD cameras



Powerful image capture ISCapture software

Discovery C15 is supplied with powerful professional image capture software ISCapture, warranting easy handling and providing users a large variety of features for optimal image acquisition.



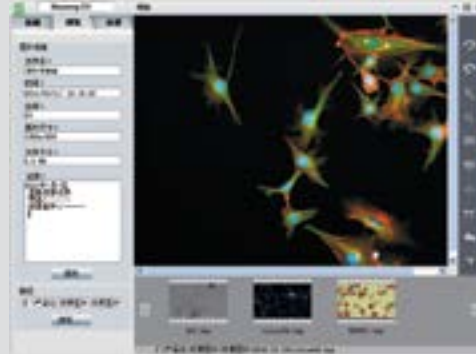
Conventional imaging

Troubled uneven brightness, color cast, flicker, and inevitable noise.

Epochal imaging product Discovery C15

Everything becomes simple and easy!

Easy to manage thousands of images



The image management function offers the different located images review, real-time image information vision and detailed documentation for the images. It is easy for users to handle thousands of images.

Mighty image measuring and processing functions



The powerful image measuring and processing tools allow you to conveniently carry out your works.

Compatible with Windows 2000/ XP/ Vista (32/ 64)/ Windows7 (32/64 bit)
Mac OS X v10.5 "Leopard" or later.



Specifications



DISCOVERY C15 SCMOS DIGITAL CAMERA	
TYPE	Positive air cooled
SENSOR	Scientific CMOS Sensor
RESOLUTION	1270 X 1030
PIXEL SIZE	3.63um X 3.63um
DIAGONAL	6.1mm
READ-OUT SPEED	15fps (1270X1030) 30fps (664 X 512)
BINNING	2 X 2
READ-OUT NOISE	3e- (r.m.s)
QUANTUM EFFICIENCY	Max 67%
FULL-WELL CAPACITY	18000e-
DYNAMIC RANGE	4500:1 (Gain 1X)
ADC	12bit full 4096 grey scales

EXPOSURE TIME	1- 5000 msec
FREEZE FRAME TECH TO REDUCE NOSIE	Electronic digital type
LONG EXPOSURE	Auto integral
EXPOSURE CONTROL	Manual/ Automatic
WHITE BALANCE	Manual/ Automatic
OPTICAL PORT	Standard C mount
FILTER	Quartz/ optical glass
INTERFACE METRICAL	High strength stainless steel adjustable ring
DATA PORT	USB2.0
ENVIRONMENT REQUIREMENT	0-60 Degrees Celsius 45%-85% humidity
STORAGE CONDITION	-20-70 Degrees Celsius

IS CAPTURE SOFTWARE

IMAGE ACQUISITION	IMAGE MANAGEMENT	IMAGE PROCESSING
Image snap shot (BMP/JPG/TIFF/RAW)	Display image file name, photographic time, bit depth, image resolution and the file size.	Image brightness, Gamma, Contrast, RGB etc adjustment; Image level vision and adjustment
Video recording (AVI)	It supports to add comments to the images.	Image measurement (calibration/ length/ angle/ area/ perimeter/ count/ remark etc);
		Image rotation, zoom in/out; Image displaying adjustment; Move, cut, delete etc.



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