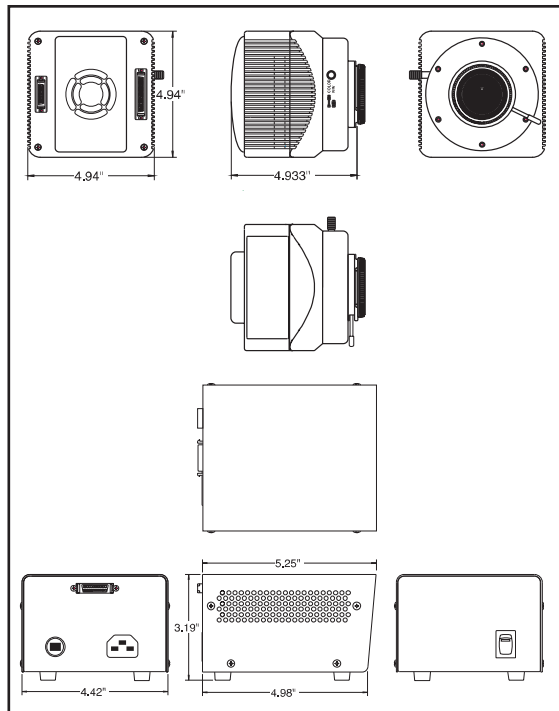


Data Sheet



Application

This camera is designed to provide low light qualitative and quantitative fluorescence image capture together in one unit.

Applications range from high resolution color brightfield to low light monochrome quantitative image capture.

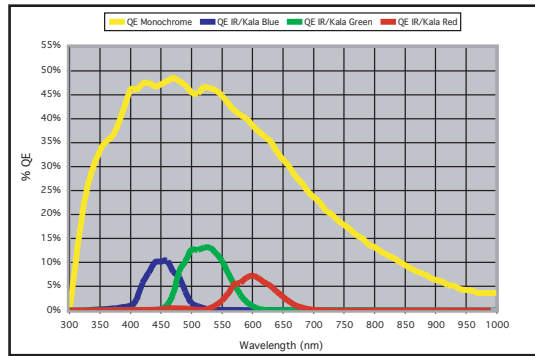
Feature

Benefit

Mode changing slide	Quantitative and Qualitative modes in a single camera
CCD cooled to -5° C from an ambient temperature of 20° C (-25° C differential) ..	Reduces dark noise for long exposure image capture
3 Shot color image capture, 1600 x 1200 (6 Megapixel sampling)	High-resolution for resolving fine detail
Programmable gain (1-32x)	Facilitates live mode previews of low light specimens
36 MHz live mode (dual channel 18MHz)	High-speed imaging for real time viewing
Interline progressive scan CCD	Electronic shuttering eliminates mechanical shutter shortcomings related to speed, wear, and vibration
PCI Interface	Stable, high-speed interface for PC and Mac platforms is over 50% faster than Firewire™ (IEEE 1394)
SPOT™ Software	Provides essential tools for modern microscopy and is widely supported by 3rd party software companies for high end applications as well as providing DLL with Mac® & Windows® operating systems
	SDK for OEM Driver development

RT™ Slider

Data Sheet



Captured Frames per Second*

Binning	REGION OF INTEREST		
	1600 X 1200	512 X 512	256 X 256
1 x 1	2.4	10.1	25.3
2 x 2	5.1	20.1	33.4
3 x 3	7.8	25.1	49.9
4 x 4	10.1	33.4	50.4

*.04ms exposure, no post-processing, images saved to RAM on 1.7 GHz P4 running Windows XP

CCD information:

Kodak KAI-2000-M with cover glass
 Monochrome progressive scan interline CCD
 1600 x 1200, 7.4 µm square pixels
 11.8mm x 8.9mm active area
 100x minimum anti-blooming
 LCD electronic RGB color changing filter with IR filter

Cooling:

-25°C differential from ambient via thermoelectric cooler with fan cooled heat sink (-5°C from an ambient of 20°C)

Digitization information:

Digitized pixel-by-pixel at CCD sensor
 Live mode: 8 bit x 36 MHz (Dual channel 8 bit x 18MHz)
 Live image frame rate: 19 frames per second
 Capture mode: 12 bit x 6MHz (see chart for frame rate)
 A/D Converter full scale set to 31,500 e (Gain=1)
 Saved bit depths: 8, 12 or 16 bit BW, 24, 36 or 48 bit RGB

Noise specifications:

Read noise: 48 e rms
 Dark noise: 0.06 e/p/s mean value

Exposure:

40 microsecond to 536 seconds
 Captured and live mode automatic exposure
 Captured and live mode manual exposure

Lens mount: Nikon F-mount

Sealing window: BK7 w/ multilayer anti-reflection coating

Computer interface: PCI bus card

External shutter control: BNC TTL level output w/programmable delay

Mechanical:

Tripod mount: 1/4 - 20 UNC

Camera head: 4.94" (126mm) x 4.94" (126mm) x 4.93" (125mm), 3.0 lbs. (1.4 kg)

Power supply: 4.42" (112mm) x 5.25" (133mm) x 3.19" (81mm), 1.46 lbs. (0.66 kg)

Operating environment: 0 to 30°C ambient, 0-80% relative humidity non-condensing

Power requirements: 85-264 VAC, 47-63 Hz

Certifications: CE, FCC Class A, EN60950

SPOT software features:

Live mode viewing window & controls, auto-exposure live and capture modes, image capture window, predefined and custom image setups, auto white balance, flat field correction, image enhancement tools in three color spaces (RGB, HSL, HSV), pan and zoom windows, annotation, calibration mark, measurement tools, sequential image capture and playback, archiving data base, report generator, interactive print dialog, online help menu

File formats:

BMP, TIFF, TIFF-JPEG, JPEG, JPEG-2000, PICT, AVI

TIFF File sizes:

8 bit BW / 1.83MB 24 bit RGB / 5.49 MB
 12 bit BW / 2.75 MB 36 bit RGB / 8.24 MB
 16 bit BW / 3.66 MB 48 bit RGB / 10.99 MB

Drivers included:

Twain for supported Windows® operating systems
 AppleEvent for supported Mac® operating systems

Native drivers for 3rd party software:

Call or visit our website (www.diaginc.com)

Minimum system requirements:

Full size PCI bus slot or PCMCIA CardBus slot*

*-Requires Magma™ Adapter (sold separately)

PC: Pentium 166 or greater w/

Windows 95, 98, 00, NT, ME, XP

Mac: Power PC, OS 8.6 - OS X

RAM: 64MB minimum, 256MB suggested

Video card: 24 bit RGB @ desired resolution

Items included: Camera head, PCI plug-in board, data cable, power supply cable, power supply, power cord, SPOT software install CD (includes drivers), user guide, 1 year warranty