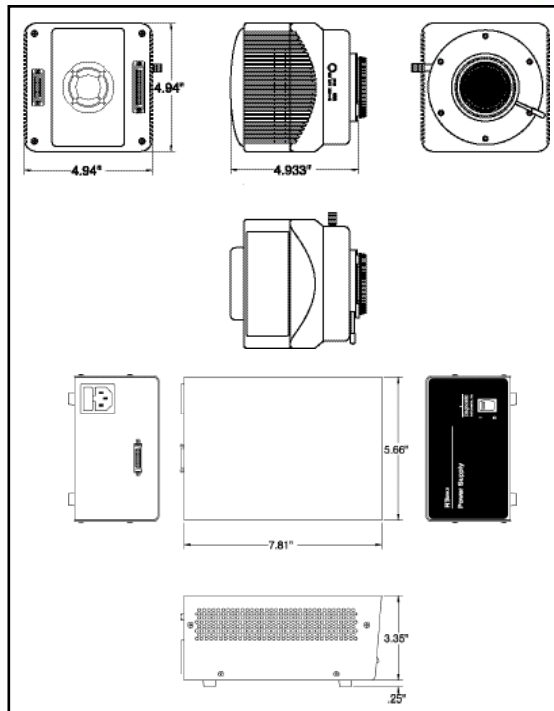


# Data Sheet



## Application

This camera is designed for high-resolution quantitative capture of low light images as well as bright-field images in both color and B/W

This camera is commonly used in low light fluorescence, Dual Phase/fluorescence, Ca<sup>++</sup>, and GFP applications.

## Feature

## Benefit

CCD cooled to -28°C from an ambient temperature of 20°C (-48°C differential) ..	Reduces dark noise for long exposure image capture
1360 x 1024 (1.39 Mpixel) image capture ..	Resolves fine detail
Live mode programmable gain (1-16x) .....	Facilitates live mode previews of low light specimens
18 MHz live mode .....	High-speed imaging for real time focusing and framing
12 bit x 6 MHz A-D conversion .....	4096 Brightness levels measured
New high quantum efficiency CCD .....	Increases sensitivity for faster image captures
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)
Mode changing slide .....	Quantitative and Qualitative modes in a single camera
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 SDK for OEM Driver development
Mac® & Windows® operating systems	
Basic & Advance Applications, Twain & Apple	
Event, DLL w/ SDK and Tutorial manual, 3rd	
Party Driver support	

**RT™ SE6 Slider**

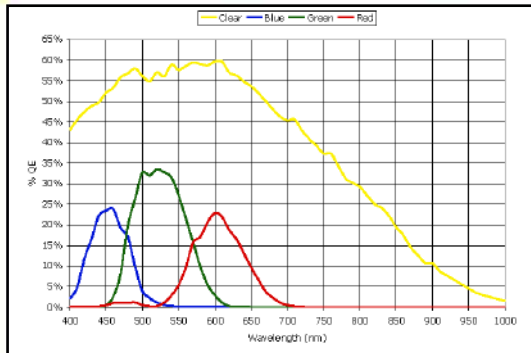




# Data Sheet

DIAGNOSTIC

RT™ SE6 Slider



### CCD information:

Sony ICX-285AL with cover glass  
 Monochrome progressive scan interline CCD  
 1360 x 1024, 6.45 µm square pixels, 8.77mm x 6.60mm active area, 100x minimum anti-blooming, LCD electronic RGB color changing filter w/IR filter

**CCD grade:** Grade 0

### CCD Cooling:

-48° C differential from ambient via thermoelectric cooler with fan cooled heat sink (-28° C from an ambient of 20° C)

### Digitization information:

Digitized pixel-by-pixel at CCD sensor  
 Live mode: 8 bit x 18 MHz  
 Live image frame rate: 15 frames per second at full resolution  
 Capture mode: 12 bit x 6MHz (see chart for frame rate)  
 A/D Converter full scale set to 14,800 e (Gain=1)  
 Saved bit depths: 8, 12 or 16 bit BW

### Noise specifications:

Read noise: 6-8 e rms  
 Dark noise: 0.012 e/p/s

### Exposure:

40 microseconds to 71 minutes  
 Captured and live mode automatic exposure  
 Captured and live mode manual exposure

**Lens mount:** Nikon F-mount

**Sealing window:** UBK7 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: 4.96" (126mm) x 4.94" (125.5mm) x 5.51" (140 mm), 3.5 lbs., 1.6 kg.)  
 Power supply: 5.66" (143.7mm) x 7.81" (198.3mm) x 3.60" (91.5mm), 3.3 lbs. (1.5 kg)  
 Operating environment: 0 to 30° C ambient, 0-80% relative humidity non-condensing  
 Power requirements: 85-264 VAC, 47-63 Hz

Captured Frames per Second\*

Binning	REGION OF INTEREST		
	1360 X 1024	512 X 512	256 X 256
1 x 1	3.0	9.4	19.2
2 x 2	6.2	16.8	28.9
3 x 3	9.2	22.2	34.2
4 x 4	11.7	26.1	38.0

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

**Certifications:** CE, FCC Class A, EN60950

### SPOT software features:

Color 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, customizable floating taskbar, spot metering, annotation, calibration mark, measurement tools, sequential image capture and playback, exportable image archiving database, report generator, macro scripting, interactive print dialog, online help menu

### File formats:

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

### TIFF File sizes:

8 bit BW/1.33MB	24 bit RGB/3.99 3
12 bit BW/2.00 MB	36 bit RGB/6.00
16 bit BW/2.66 MB	48 bit RGB/7.98

### 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](http://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, 2 year warranty

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 Windows® is a registered trademark of Microsoft.

Catalog Number: RT940

