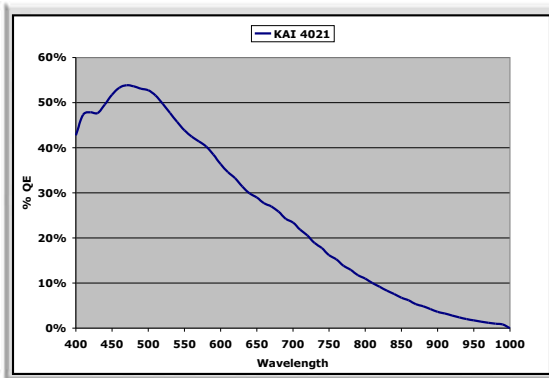




# Data Sheet

Xplorer™ – Monochrome



Captured Frames per Second\*

Binning	REGION OF INTEREST			
	2048 X 2048	1024 X 1024	512 X 512	256 X 256
1 x 1	3.8	6.3	9.7	13.2
2 x 2	6.3	9.6	13.2	16.1
3 x 3	8.1	11.7	15.0	17.3
4 x 4	9.6	13.1	16.0	18.0
8 x 8	12.9	15.9	17.9	19.1

\*1ms exposure with post-processing deferred, taken with 2.6 Ghz Xeon processor running Windows XP. Capture rates on other computers OS platforms may vary.

## **CCD information:**

Kodak KAI-4021-M with cover glass  
Monochrome progressive scan interline CCD  
2048 x 2048, 7.4 μm square pixels  
15.16 x 15.16 mm active area, >1" optical format  
300x anti-blooming

## **Cooling:**

-42° C regulated cooling via three stage Peltier thermoelectric cooler; -71° C maximum differential from ambient

## **Digitization information:**

Digitized pixel by pixel at CCD sensor  
Live mode: 8 bit x 40 MHz (Dual channel 8 bit x 20 MHz )  
Live image frame rate: 11 f/s without binning; up to 17 f/s with binning  
Capture mode: 14 bit (10 and 20 Mhz selectable)  
A/D Converter full scale set to 30,000 e (no binning); 60,000 e (with binning)  
Nonlinearity: <1% (gain 1)  
Saved bit depths: 8, 12 or 16 bit BW

## **Noise specifications:**

Read noise: 9 e at 10 Mhz; 12 e at 20 Mhz  
Dark current: 0.0002 e/p/s

## **Exposure:**

No maximum exposure; 1 ms minimum exposure  
Captured and live mode automatic exposure  
Captured and live mode manual exposure

## **Lens mount:** C-mount

**Sealing window:** Multilayer anti-reflection coating

**Computer interface:** PCI bus card

**External device control:** TTL level output with programmable delay

**External trigger input:** TTL level input with programmable delay

## **Mechanical:**

**Tripod mount:** 1/4 - 20 UNC  
**Camera head:** 5.00" (127 mm) x 4.40" (112 mm) x 6.01" (153 mm), 4.4 lbs. (2.0 kg)  
**Power supply:** 3.61" (92 mm) x 3.90" (99 mm) x 8.13" (207 mm), 3.2 lbs. (1.5kg)  
**Operating environment:** 0 to 30° C ambient, 0-80% relative humidity noncondensing  
**Power requirements:** 100-240 VAC, 3 A

## **SPOT software features:**

Live mode viewing window & controls, auto-exposure live and capture modes, image capture window, predefined and custom image setups, flat field correction, pan and zoom windows, multiple customizable floating taskbars, spot metering, non-destructive annotations, non-destructive calibration marks, measurement tools, sequential image capture and playback, exportable image archiving database (PC only), report generator, macro scripting, interactive print dialog, online help menu

## **File formats:**

Bitmap, TIFF, TIFF-JPEG, JPEG-2000, PICT, AVI (PC, export only), Quicktime (Mac, export only)

## **TIFF File sizes:**

8 bit BW / 4 MB  
12 bit BW / 6 MB  
16 bit BW / 8 MB

## **Drivers included:**

Twain for supported Windows® operating systems  
Third Party Interface 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 height, half length PCI bus slot (desktop) or PCMCIA cardbus slot (laptop)\*

\*-Requires Magma™ adapter (sold separately)

PC: Pentium 400 Mhz – Windows 98, 98SE, 2000, ME, or XP

Mac: 400 Mhz G3 – OS 10.2.8 or higher

RAM: 256 MB RAM

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), software user guide, hardware user guide, and 2 year warranty

Mac® is a registered trademark of Apple Computers, Inc.  
Windows® is a registered trademark of Microsoft  
Specifications are typical and subject to change without notice.  
Ambient temperature is defined as 20° C.