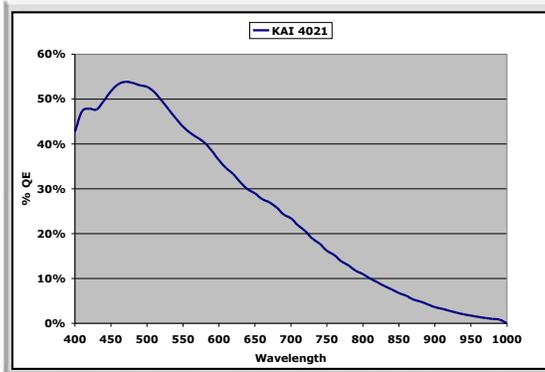


Data Sheet

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)

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.