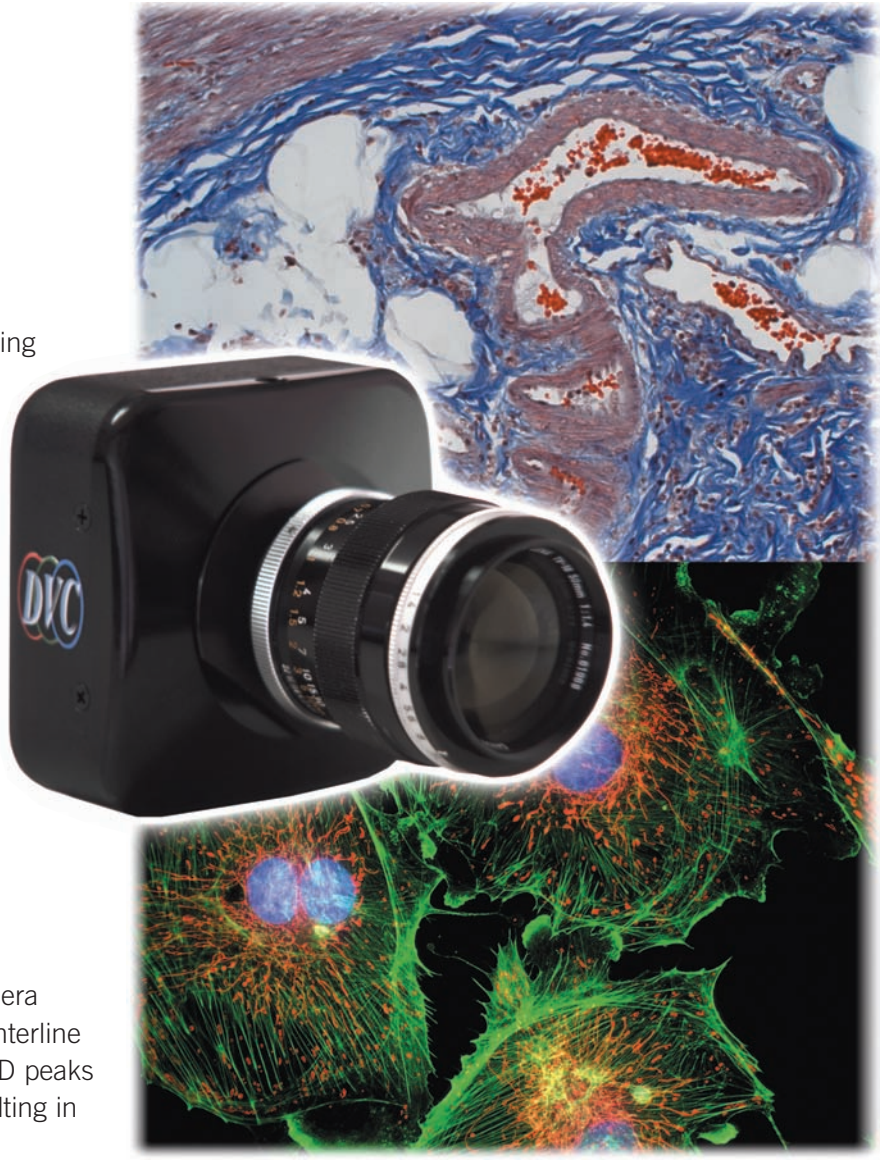
Digital Video Camera Company

DVC-4000C
COLOR DIGITAL CAMERA

Features

- High QE CCD: >55% @500nm
- 4 Megapixel Resolution: 2048 X 2048
- Interline, Progressive-Scan CCD
- 12-Bit Digitization
- Dual A/D Converters: 40 and 20 MHz
- Low Read Noise
- Optional 1-Stage or 2-Stage TE Cooler
- "C" Lens Mount
- High Signal-to-Noise Ratio
- Variable, On-chip Region of Interest and Binning
- Flexible Exposure and Readout Modes
- Gigabit Ethernet or Camera Link Interface
- *DVCView™* Image Capture and Control Software
- SDK for Windows and Linux
- Software and External Asynchronous Triggers
- No Mechanical Shutter Required
- CE/UL/CUL/FCC Certified
- RoHS Compliant



Description

The DVC-4000C is a high-resolution digital camera utilizing a Kodak KAI-4021C progressive-scan interline CCD sensor. The quantum effeciency of the CCD peaks in the 500-600cm region of the spectrum, resulting in optimum sensitivity for most applications.

RGB color is derived by use of an on-sensor Bayer filter pattern that minimizes loss of light and resolution. The highly stable optical mount utilizes adjustable C-mount coupling to provide critical system focusing adjustments.

The camera is supplied with *DVCView™*, a Windows 2000/XP software program for real-time viewing and image capture. *DVCView™* allows the user to control all camera functions including variable ROI readout to provide faster frame rates wthout loss of resolution. Also included are image averaging and background correcion. *DVCView™* provides 5 user-programmable single-click application controls. A multi-platform SDK is available to developers, streamlining integration of all DVC cameras via the DVC API.

SPECIFICATIONS

DVC-4000C

CCD

KAI-4021 progressive-scan interline CCD

Active Pixels	2048 X 2048
Pixel Size	7.4 µm X 7.4 µm (sq. format)
Imager Size	21.43 mm (diagonal)
Aspect Ratio	1:1
Peak QE	> 55%
Full Well	38,000e⁻ @ 20 MHz 20,000e⁻ @ 40 MHz

Digital Video

I/O	12-Bit Camera Link or Gigabit Ethernet		
A/D Converter	20 MHz @ 12-bits 40 MHz @ 12-bits		
Read Noise	12 e⁻ @ 20 MHz		
Binning (for monochrome operation only)		20MHz	40MHz
	1X1 2048 X 2048	4	8
	2X2 1024 X 1024	8	15
	4X4 512 X 512	14	25
	4X20 512 X 100	40	55
ROI (selected examples)		20MHz	40MHz
	1024 X 1024	8	15
	512 X 512	15	26
	256 X 256	25	39
Gain Control Range	35 dB		
Offset Control (Black)	0% to 6% in 256 steps		
Exposure Range	60 µs to 1 hour		

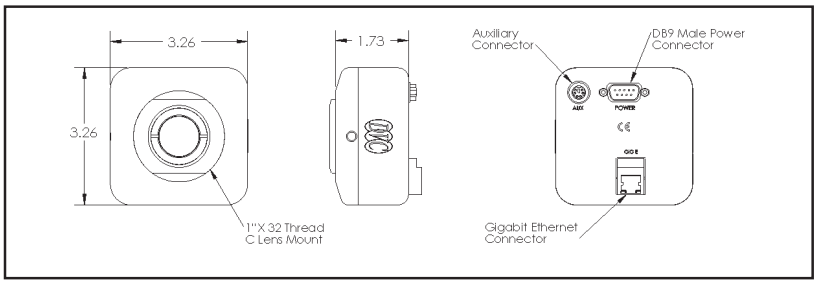
Electrical

Input Voltage	110/220 VAC 50/60 Hz
Power	< 5 Watts

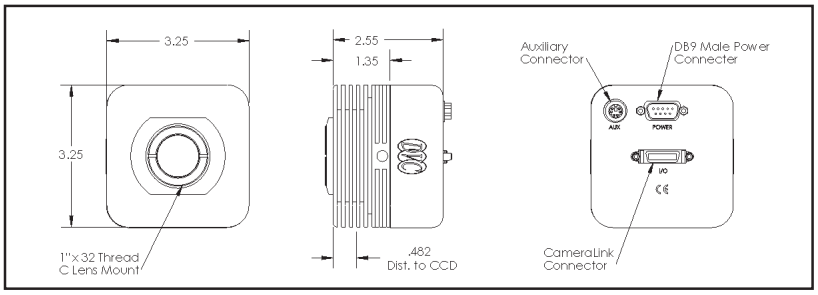
Mechanical

Size W/T1 Cooler W/T2 Cooler	3.25" (H) X 3.25" (W) X 1.73" (L) 3.25" (H) X 3.25" (W) X 2.56" (L) 3.90" (H) X 3.90" (W) X 2.57" (L)
Weight W/T1 Cooler W/T2 Cooler	18 oz (505 grams) 30 oz (900 grams) 38 oz (1077 grams)
Lens Mount	C-mount; F-mount optional
Camera Mount	1/4" X 20 Standard Tripod mount
Camera Connector	Camera Link or Gigabit Ethernet
Power Connector	DB-9M

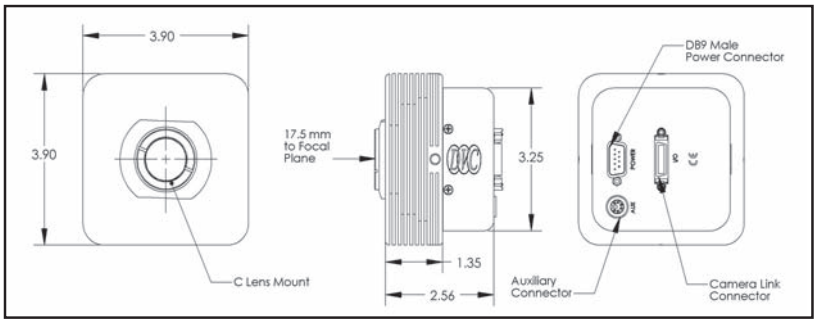
4000C (shown with Gigabit Ethernet connector)



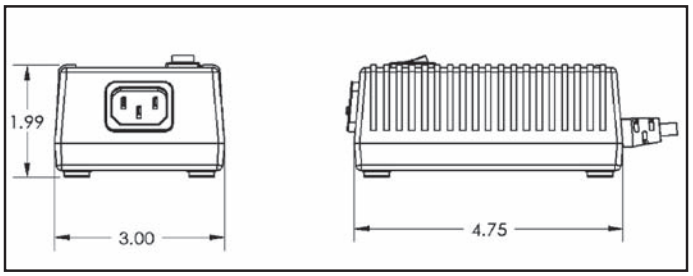
4000C-T1 Cooled (shown with Camera Link connector)



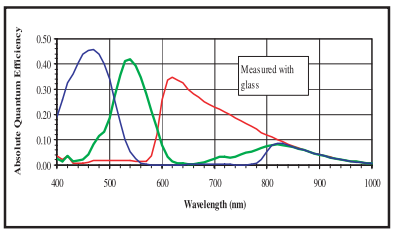
4000C-T2 Cooled (shown with Camera Link connector)



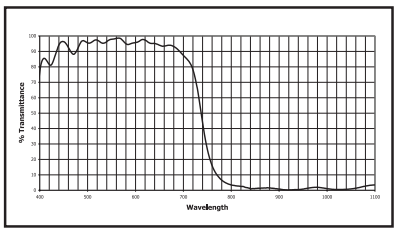
Switchmode power supply



CCD Quantum Efficiency



IR Filter Response



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