



Digital
Video
Camera
Company

DVC-4000AM

MONOCHROME 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
- Software and External Asynchronous Triggers
- DVCView™ Image Capture and Control Software
- SDK for Windows and Linux
- No Mechanical Shutter Required
- CE/UL/CUL/FCC Certified
- RoHS Compliant

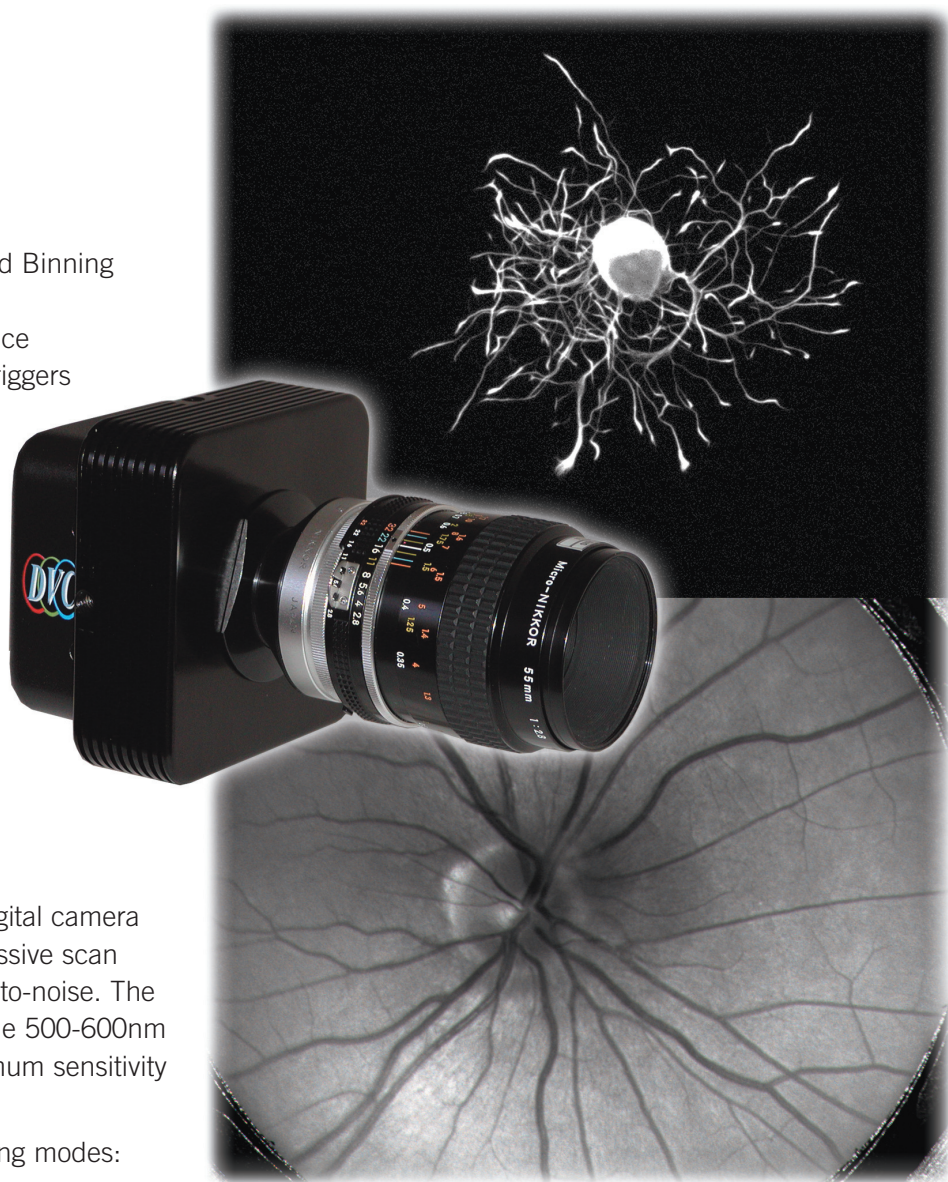


Description

The DVC-4000AM is a high-resolution digital camera utilizing the new Kodak KAI-4022 progressive scan interline CCD sensor for improved signal-to-noise. The quantum efficiency of the CD peaks in the 500-600nm region of the spectrum, resulting in optimum sensitivity for most applications.

The DVC-4000AM has four basic operating modes: streaming overlapped exposure, streaming non-overlapped exposure, edge-triggered single-frame snapshot, and variable pulse-width exposure. Two independent A/D converters offer the user selection of CCD readout rates for lowest noise or highest speed.

DVCView™ application software is provided with the camera for real-time viewing and image capture. A multi-platform SDK is available to developers, streamlining integration of any DVC camera via the DVC API.



SPECIFICATIONS

DVC-4000AM

CCD

KAI-4022 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	10 e ⁻ @ 20 MHz			
Binning (selected examples)		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			

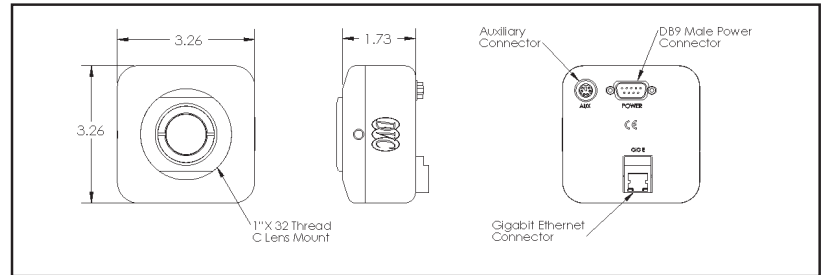
Electrical

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

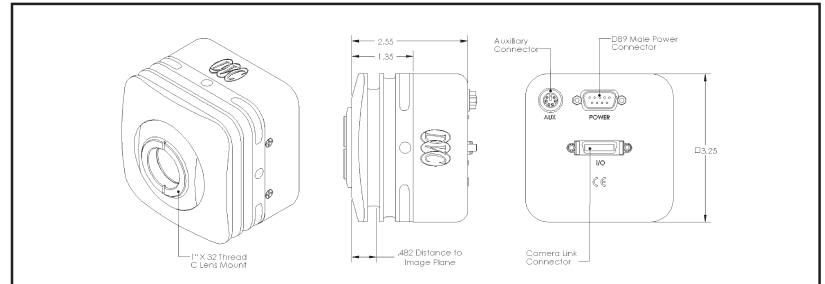
Mechanical

Size	3.25" (H) X 3.25" (W) X 1.73" (L)
W/T1 Cooler	3.25" (H) X 3.25" (W) X 2.56" (L)
W/T2 Cooler	3.90" (H) X 3.90" (W) X 2.57" (L)
Weight	18 oz (505 grams)
W/T1 Cooler	30 oz (900 grams)
W/T2 Cooler	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

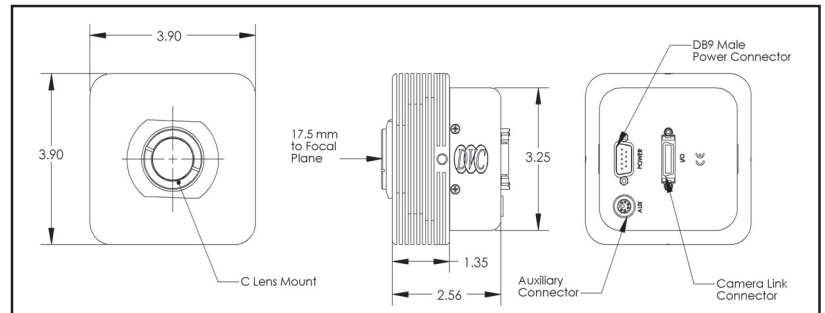
4000AM (shown with Gigabit Ethernet connector)



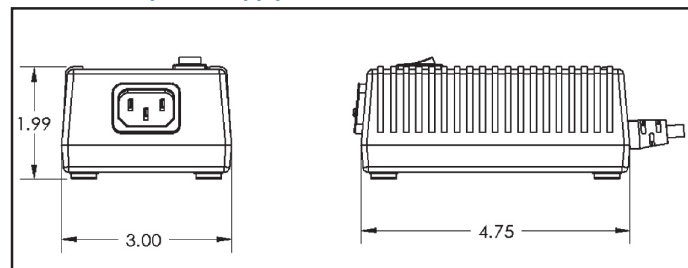
4000AM-T1 Cooled (shown with Camera Link connector)



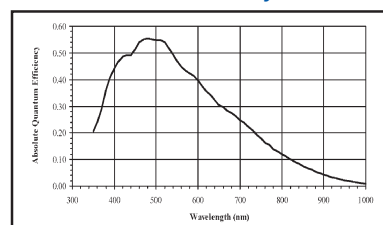
4000AM-T2 Cooled (shown with Camera Link connector)



Switchmode power supply



CCD Quantum Efficiency



IR Filter Response

