

## 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 Coolers
- “F” and “C” Lens Mounts
- Long Term Exposures: > 1 hour
- High Signal to Noise Ratio
- Variable, On-chip Region of Interest and Binning
- Flexible Exposure and Readout Modes
- Software and External Asynchronous Triggers
- *DVCView™*: Image Capture and Control Software
- Windows/Linux/API
- No Mechanical Shutter Required
- CE / UL / CUL / FCC Certified

### Additional Information

Available at:

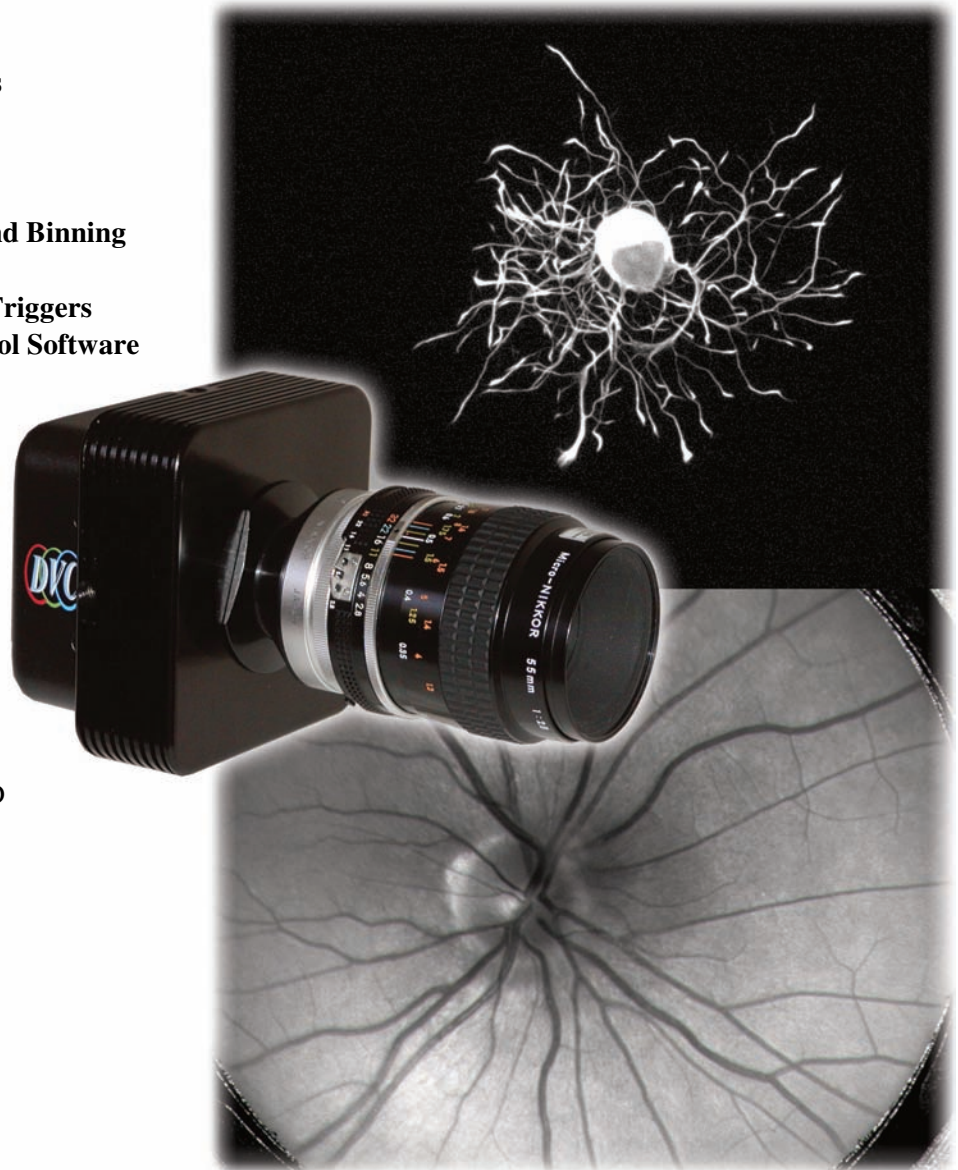
[www.dvcco.com](http://www.dvcco.com)

## Description

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

The DVC-4000M 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 offers 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 all DVC cameras via the DVC API.



# SPECIFICATIONS

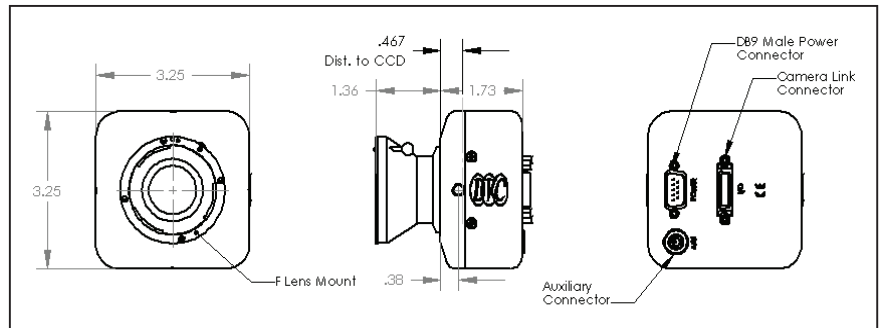
**DVC-4000M**

## CCD

**KAI-4021M progressive scan interline CCD**

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

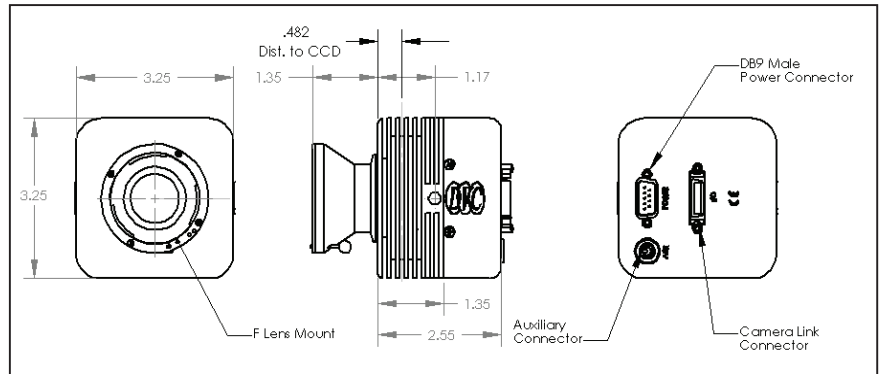
## 4000M



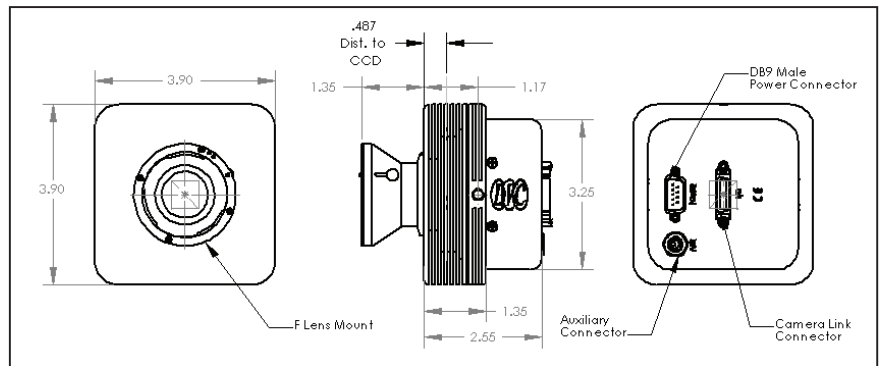
## Digital Video

I/O	12 Bit CameraLink		
A/D Converter 1 A/D Converter 2	20 MHz @ 12 bits 40 MHz @ 12 bits		
Read Noise	12 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
ROI (selected examples)		20MHz	40MHz
	1024 X 1024	8	15
	512 X 512	15	26
	256 X 256	25	39

## 4000M-T1 Cooled



## 4000M-T2 Cooled



## Electrical

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

## Mechanical

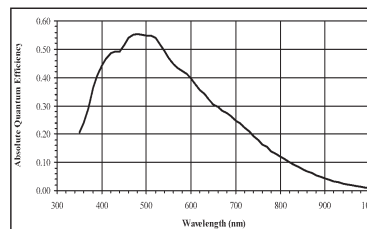
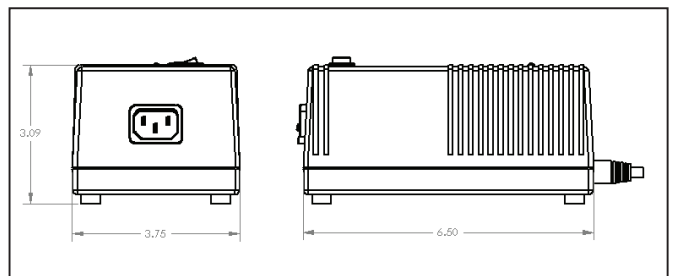
Size	3.25" (H) X 3.25" (W) X 1.73" (L)
W/T1 Cooler	3.25" (H) X 3.25" (W) X 2.56" (L)
W/T2 Cooler	3.90" (H) X 3.90" (W) X 2.57" (L)
Weight	18 ozs. (505 grams)
W/T1 Cooler	30 ozs. (900 grams)
W/T2 Cooler	38 ozs. (1077 grams)
Lens Mount	F-mount, C-mount optional
Camera Mount	¼" X 20 Standard Tripod mount
Camera Connector	CameraLink .MDR-26
Power Connector	DB-9M

## Camera Control

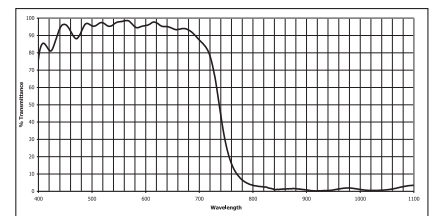
**DVCView Interface Software module, standard**

Gain Control Range	35 dB
Offset Control (black)	0% to 6% in 256 steps
Exposure Range	60 μs to 1 hour

## Linear Power Supply



CCD Quantum Efficiency



IR Filter Response



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