DVC-1412AM

Monochrome Digital Camera

Features

- **High QE CCD:** >62% @550nm
- **Mega-pixel Resolution:** 1392 (H) X 1040 (V) X 12 bits
- **Fast Readout:** 18 MHz
- **Low Read Noise:** $8e^-$ @ 18MHz
- **Optional, Retrofittable TE Cooler:** –20°C (no fan required)
- **Long Term Exposure:** Up to 15 minutes
- **High Signal to Noise Ratio:** >65dB
- **User Adjustable Region of Interest**
- **Selectable Binning Modes:** 1x1, 2x2, 4x4, 8x8
- **Programmable Scan:** 18 MHz, 9MHz
- **Output Configuration:** FireWire/CameraLink/LVDS
- **DV*CView*™:** Image Capture and Control Software
- **Multi Platform API/SDK Available**
- **Asynchronous Reset:** with multiple fast/shutter modes
- **Ultra-stable In-camera Digitization**
- **No Mechanical Shutter Required**
- **CE / UL / CUL / FCC Certified**

Additional Information Available at:
www.dvcco.com

Description

The DVC-1412AM is a high resolution, high sensitivity digital camera utilizing a Sony ICX285AL Mega-pixel 2/3″ scan interline CCD sensor. The CCD sensor has a particularly high QE peaking in the 500-600nm region of the spectrum resulting in higher sensitivity for most applications.

The camera is supplied with ***DVCview™***, a Windows 2000/XP or Mac OS X 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 without loss of resolution. Also included are image averaging and background correction. ***DVCview™*** provides 5 user-programmable single-click application controls.

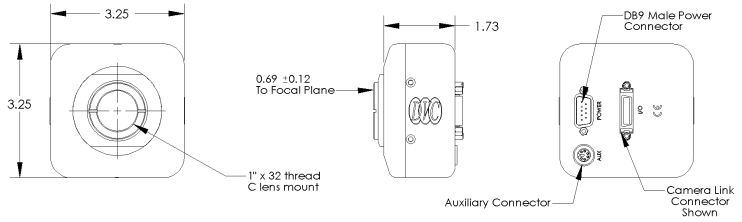
This camera is supported by many popular 3rd party programs. The camera is available with either Firewire, CameraLink or LVDS output which is interfaced to the computer via a single multi-pinned cable.

Specifications

DVC-1412AM

CCD	ICX285 2/3" progressive scan interline CCD
Active Pixels	1392 (H) X 1040 (V)
Pick Up Area	8.98 mm X 6.71 mm (2/3" format)
Pixel Size	6.45 µm X 6.45 µm (sq. format)
Aspect Ratio	4:3
QE	>62% @ 550 nm
Full Well	16000e - (1X1) 32000e - (Bin 2X2)

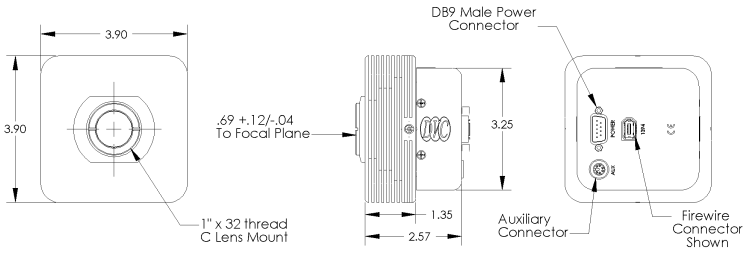
1412AM-00



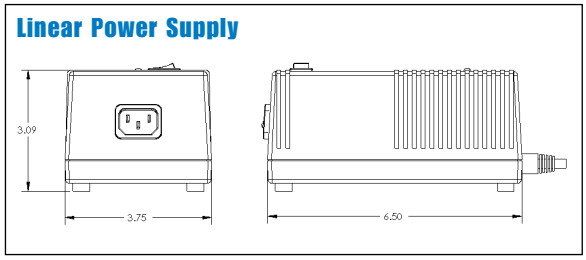
Digital Video Output

Optional I/O	•12 bit RS-422/RS-644 (LVDS) •12 bit CameraLink (CL) •12 bit IEEE-1394A (Firewire)			
Readout Rates	18 MHz, 9 MHz			
Read Noise	8e-@ 18 MHz			
Binning		Resolution	Frames/Sec	
	1X1	1392 X 1040	10.2	
	1X2	1392 X 520	20	
	2X2	696 X 520	20	
	4X4	348 X 260	39	
	8X8	174 X 130	60	
ROI	512X512	256X256	64X64	16X16
Frames/Second	19	32	70	100
Signal to Noise	>65 dB, at 0 dB. gain			
Sensitivity (light output required for full scale output; without IR filter)	0.022 fc @ 0 dB gain, 10.2 f/sec			

1412AM-TE Cooled



Linear Power Supply

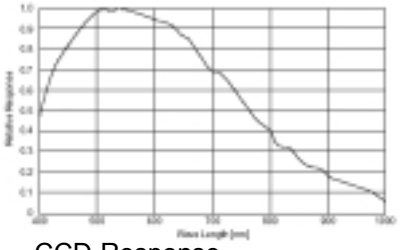


Electrical

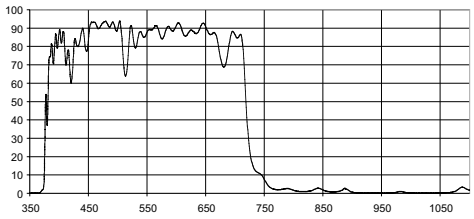
Input Voltage	110/220 VAC 50/60 Hz
Power	3.2 Watts
Clock	Internal Crystal @ 72 MHz

Mechanical

Size With TE Cooler	3.25" (H) X 3.25" (W) X 1.73" (L) 3.90" (H) X 3.90" (W) X 2.57" (L)	
Weight With TE Cooler	18 oz. (505 grams) 38 oz. (1077 grams)	
Lens Mount	Standard C-mount	
Camera Mount	¼" X 20 Standard Tripod Mount	
Camera Connectors	LVDS CameraLink Firewire	DB-44F MDR-26 6 pin 1394A
Power Connector	DB-9M	



CCD Response



IR Filter Response

Camera Control

	DVCView Interface Software M odule, standard
Gain Control Range	30 dB
Offset Control (black)	0% to 6% in 16 steps
High Speed Shutter	93µs to 98 ms
Integration Control	98 ms to 15 min.

DVC Company

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