FINGER LAKES INSTRUMENTATION

MICROLINE CCD CAMERA

ML4240 DD.

DATASHEET flicamera.com/models/ml4240-dd

PRODUCT PAGE

MADE IN USA

This version of the ML4240 uses a back-illuminated sensor on deep depletion silicon, giving high quantum efficiency across the visible and into the near infrared. Deep depletion silicon has substantially higher dark current than standard silicon.



KEY SPECIFICATIONS

SENSOR	SIZE (MM)	RESOLUTION	PIXEL SIZE
e2v CCD42-40-1-169	27.6 X 27.6 mm (39.1 mm)	2048 x 2048	13.5 x 13.5 µm

FULL WELL	READ NOISE	DARK CURRENT	BIT DEPTH
100000 electrons	13 e- at 500 kHz; 16 e- at 2 MHz	15 eps at -40C	16 bit

TECHNICAL DATA

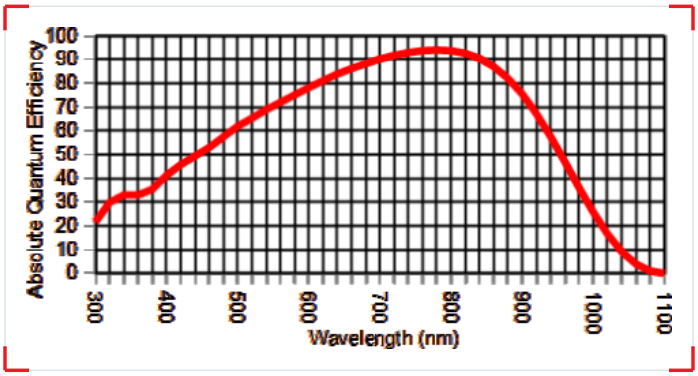
Sensor Type	Back Illum. Deep Depletion (NIMO) CCD
Active Pixels	2048 x 2048
Imaging Area (Diagonal)	27.6 X 27.6 mm (39.1 mm)
Typical Readout Noise	13 e- at 500 kHz; 16 e- at 2 MHz
Anti-Blooming	None
Max. Cooling (Air)	55°C below ambient
Dark Current (typical)	15 eps at -40C
Digitization Clock	500 kHz and 2MHz (up to 2 channels
Non-Linearity	<1%
Shutter	45 mm

Sensor	e2v CCD42-40-1-169
Pixel Size (microns)	13.5 x 13.5 µm
Full Well Capacity (e-)	100000 electrons
Dynamic Range	77.4 dB
Cooling Method	Air (Optional liquid)
Temperature Stability	0.1°C
Interface	USB 2.0
Data Bit Depth	16 bit
Channels	1
Lens Mount	Optional Nikon or Canon

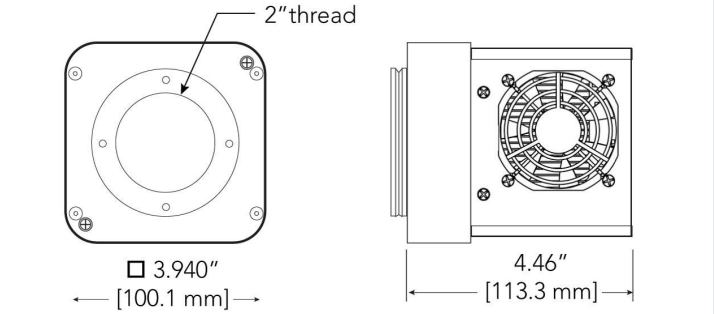
Subarray Readout	Standard	**External Trigger In/Out**	Standard
SDK / Software	USB2 / FLIGrab	**Weight**	2.8 lbs (1.2 kg)
Environment	-30°C to 45°C | 10% - 90% Relative Humidity		

TECHNICAL FIGURES

Absolute quantum efficiency



Mechanical outline



NOTES AND OPERATING CONDITIONS

12V (100-240V AC to 12V DC power supply included). With TEC off: <1A. TEC at 100%: 4.4A. Shutter open: 4A pulse for 100msec. Shutter held open, add 0.22A.

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