

MicroLine ML4240

Quality. Cooled. Cameras.

2048 x 2048 Imaging Array

13.5 μm Pixel Size

At 3.7 x 3.7 x 4.8 inches the MicroLine is a small camera with big camera capabilities. Each component of the MicroLine camera is designed and manufactured for a long life in the most demanding conditions. MicroLine download speeds are fast yet maintain the 16-bit resolution necessary to produce high quality images. MicroLine cameras can achieve up to 60°C below ambient cooling without water assist. Simply set the MicroLine cooling where you want it and the camera will do the rest, quickly and without worries.



Applications

- Digital Radiography
- Astronomy
- Bioluminescence
- Chemiluminescence
- Gel Documentation
- Forensic Imaging
- Satellite Imaging
- Low Light Level Imaging

Features	Benefits
750 kHz and 2 MHz digitization	Fast Image capture with full 16-bit resolution
2048 x 2048 Array with 13.5 μm pixels	Resolves fine detail
Flexible binning and readout	Increases frame rate
Thermoelectric Cooling to 58°C Below Ambient	Excellent low-noise imaging
Excellent quantum efficiency	High sensitivity for fast image acquisition
Optional Nikon F-mount or Canon EOS mount	Wide variety of optical choices
Acquisition software included	Ease of integration with open source SDK
USB 2.0 interface	Industry standard connectivity; fast data transfer



Engineering Excellence

Because Your Image Depends On It.

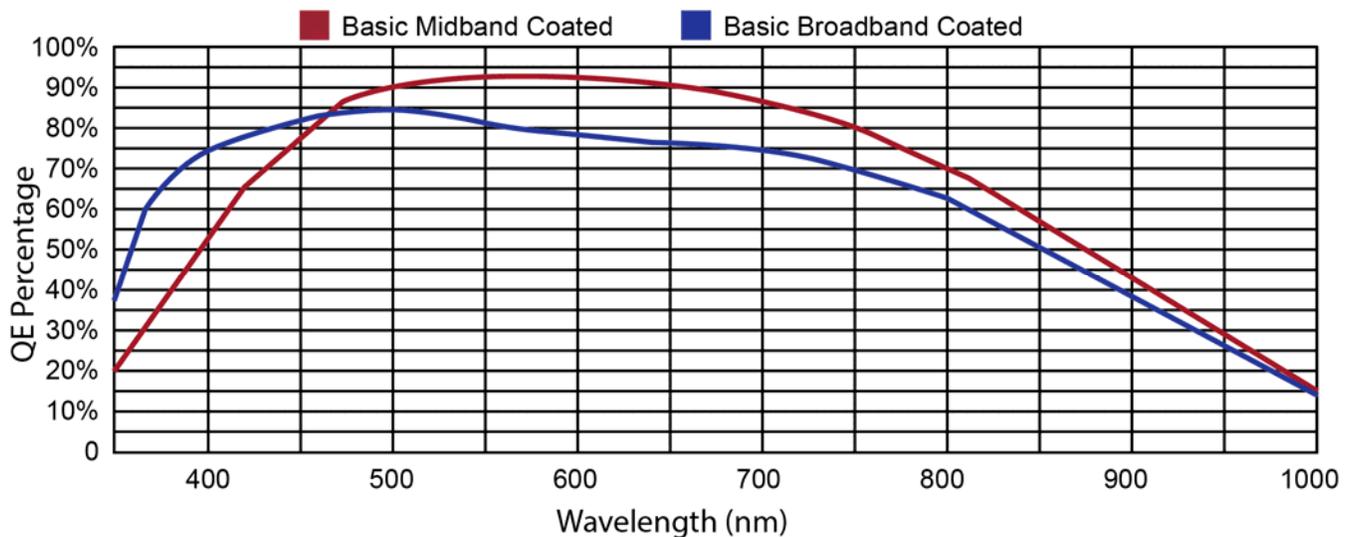
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*Due to continuous development, all specifications subject to change without notice.

Sensor Specifications (from manufacturer)

Sensor	e2v CCD42-40	Sensor Size	27.6 X 27.6 mm	Megapixels	4
Pixels	2048 x 2048	Sensor Diagonal	39 mm	Video Size (inch)	2.4
Pixel Size	13.5 μ m	CCD Variants	MB; BB		
Full Well Capacity	100000 electrons	CCD Grades	1		
Color Options	Monochrome only	Anti-Blooming	NA		
CCD Type	Full frame				

Sensor Quantum Efficiency (Absolute)



Camera Performance

Typical Maximum Cooling	58°C below ambient	Dark Current (typical)	0.2 electrons/pixel/sec at -30°C
Temperature Stability	0.1°C	Cooling Method	Air (Optional liquid)
Digitization Speed	750 kHz and 2 MHz (up to 2 channels at 3 MHz each)		
Typical System Noise	9 e- @ 500 kHz; 14 e- @ 2 MHz	Non-Linearity	<1%
Housing Dimensions	3.7 X 3.7 X 4.77 inches (9.3 X 9.3 X 12.1 cm)	Weight	2.8 lbs (1.2 kg)
Focal Plane to Face Plate	15.7 mm		
Lens Mounts	Optional Nikon F-mount and Canon EOS lens adapters		
Interface	USB 2.0	Camera Channels	1 (optional 2)
Available Shutters	43 mm		
External Triggering	Standard		1000000
Environment	-30°C to 45°C 10% - 90% Relative Humidity		
Power	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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