

MicroLine ML29050

Quality. Cooled. Cameras.

6576 x 4384 Imaging Array

5.5 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	Gel Documentation
Astronomy	Forensic Imaging
Bioluminescence	Satellite Imaging
Chemiluminescence	Low Light Level Imaging

Features

Benefits

Up to 12 MHz Digitization	Fast Image capture with full 16-bit resolution
6576 x 4384 Array with 5.5 μm pixels	Resolves fine detail
Flexible binning and readout	Increases frame rate
Thermoelectric Cooling to 45°C Below Ambient	Excellent low-noise imaging
Excellent quantum efficiency	High sensitivity for fast image acquisition
F-mount Available	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.

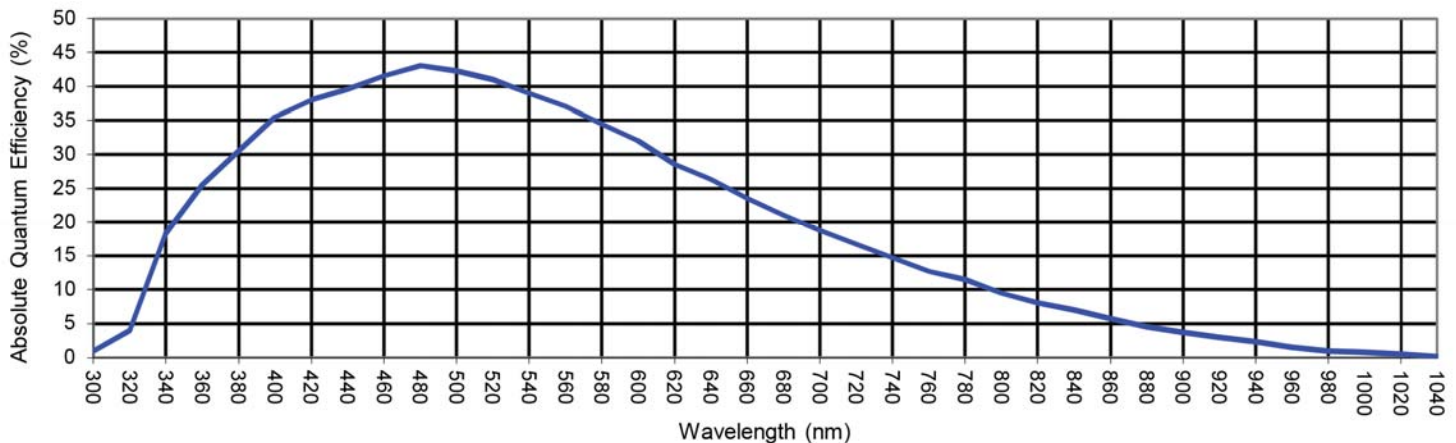
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*Due to continuous development, all specifications subject to change without notice.

Sensor Specifications (from manufacturer)

Sensor	On Semi KAI-29050	Sensor Size	36.1 X 24.1 mm	Megapixels	29
Pixels	6576 x 4384	Sensor Diagonal	43.4 mm	Video Size (inch)	2.7
Pixel Size	5.5 μ m	CCD Variants			
Full Well Capacity	20,000 electrons	CCD Grades	1 or 2		
Color Options	Mono or Color	Anti-Blooming	300x		
CCD Type	Interline transfer				

Sensor Quantum Efficiency (Absolute)



Camera Performance

Typical Maximum Cooling	45°C below ambient	Dark Current (typical)	0.002 electrons/pixel/sec at -25°C
Temperature Stability	0.1°C	Cooling Method	Air (Optional liquid)
Digitization Speed	4 MHz & 12 MHz (optional two channels @ 10 MHz each)		
Typical System Noise	8e- RMS @ 4 MHz; 10e- RMS @ 12 MHz	Non-Linearity	<1%
Focal Plane to Face Plate	15.7mm (21mm with optional shutter)	Weight	3.96 lbs (1.8 kg)
Typical Gain		Housing	3.7 X 3.7 X 4.77 inches (9.3 X 9.3 X 12.1 cm)
Lens Mounts	Optional Nikon F-mount or Canon EOS Mount		
Interface	USB 2.0	Camera Channels	1 (optional 2)
Available Shutters	Optional 65 mm		
External Triggering	Standard		
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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