

MicroLine ML16200

Quality. Cooled. Cameras.

4500 x 3600 Front Illuminated CCD

6.0 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
2 MHz & 12 MHz digitization	Fast Image capture with full 16-bit resolution
4500 x 3600 Array with 6.0 μm pixels	Resolves fine detail
Flexible binning and readout	Increases frame rate
Thermoelectric Cooling to -55°C Below Ambient	Excellent low-noise imaging
Excellent quantum efficiency	High sensitivity for fast image acquisition
Optional F-mount lens 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

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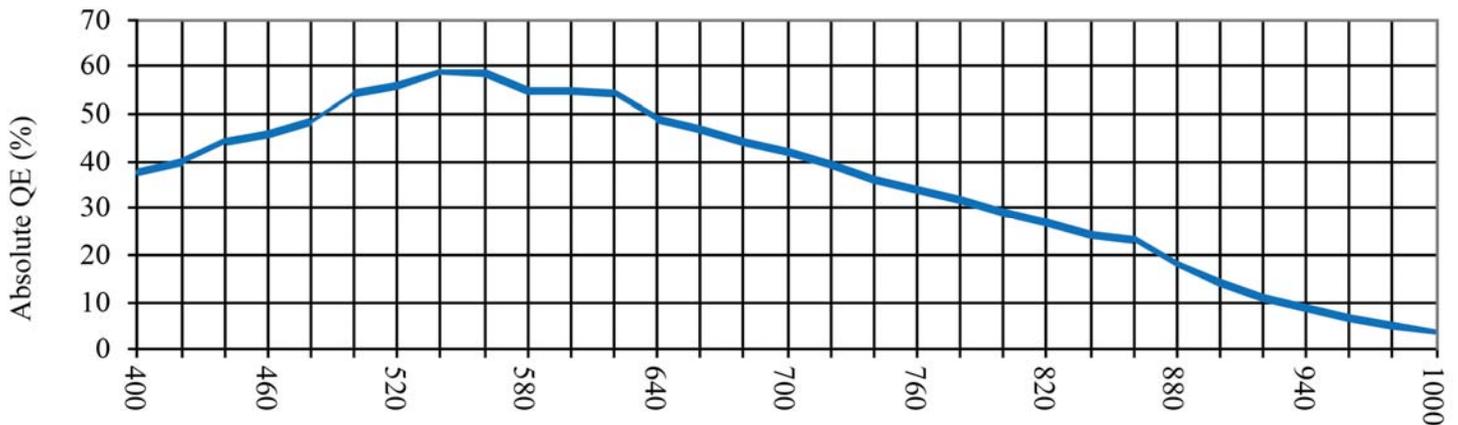
1250 Rochester St.
Lima NY 14485 · USA
585 624 3760
sales@flicamera.com
www.flicamera.com

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

Sensor Specifications (from manufacturer)

Sensor	ON Semi KAF-16200 Front Illuminated CCD	Sensor Size	27 X 21.6 mm	Megapixels	16
Pixels	4500 x 3600	Sensor Diagonal	34.5 mm	Video Size (inch)	2.2"
Pixel Size	6.0 x 6.0 μ m	Sensor Area	583.2 mm ²	Sensor Grades	Standard
Full Well Capacity	39000 electrons				
Anti-Blooming	2800x				
Variants					

Sensor Quantum Efficiency (Absolute)



Camera Performance

Typical Maximum Cooling	-55°C below ambient	Dark Current (typical)	0.015 eps at -25°C
Temperature Stability	0.1°C	Cooling Method	Air (Optional liquid)
Digitization Speed	2 MHz and 12 MHz Focus mode (software selectable)		
Typical System Noise	6 e- RMS @ 2 MHz; 11.5 e- at 12 MHz	Non-Linearity	<1%
Focal Plane to Face Plate	15.4 mm	Typical Gain	0.6 e- / count
	3.7 X 3.7 X 4.77 inches (9.3 X 9.3 X 12.1 cm)		2.8 lbs (1.2 kg)
Lens Mounts	F-Mount		
Interface	USB 2.0	Camera Channels	1
Available Shutters	45 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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