

MicroLine ML16200

Quality. Cooled. Cameras.

4500 x 3600 Imaging Array

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
- Astronomy
- Bioluminescence
- Chemiluminescence
- Gel Documentation
- Forensic Imaging
- Satellite Imaging
- 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

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 KAF-16200	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 μ m	CCD Variants			
Full Well Capacity	39000 electrons	CCD Grades	Standard		
Color Options	Monochrome	Anti-Blooming	2800x		
CCD Type	Front Illuminated				

Sensor Quantum Efficiency (Absolute)



Camera Performance

Typical Maximum Cooling	-55°C below ambient	Dark Current (typical)	<0.003 electrons/pixel/sec at -35°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	Weight	2.8 lbs (1.2 kg)
Typical Gain	0.6 e- / count	Housing	3.7 X 3.7 X 4.77 inches (9.3 X 9.3 X 12.1 cm)
Lens Mounts	F-Mount	Camera Channels	1
Interface	USB 2.0		
Available Shutters	45 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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