

MicroLine ML16000

Quality. Cooled. Cameras.

4872 x 3248 Imaging Array

7.4 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.



Features

Benefits

Up to 12 MHz Digitization

Fast Image capture with full 16-bit resolution

4872 x 3248 Array with 7.4 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-16000	Sensor Size	36 X 24 mm	Megapixels	16
Pixels	4872 x 3248	Sensor Diagonal	43.2 mm	Video Size (inch)	2.7
Pixel Size	7.4 μ m	CCD Variants			
Full Well Capacity	30,000 electrons	CCD Grades	1, 2		
Color Options	Mono or Color	Anti-Blooming	100X		
CCD Type	Interline transfer				

Sensor Quantum Efficiency (Absolute)



Camera Performance

Typical Maximum Cooling	45°C below ambient	Dark Current (typical)	0.003 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	9e- RMS @ 4 MHz; 12e- RMS @ 12 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	3.96 lbs (1.8 kg)
Focal Plane to Face Plate	15.7mm (21mm with optional shutter)		
Lens Mounts	Optional Nikon F-mount or Canon EOS Mount		
Interface	USB 2.0	Camera Channels	1 (optional 2)
Available Shutters	Optional 65 mm	Shutter MTBF	1000000
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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