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



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Sensor Specifications (from manufacturer)

Sensor On Semi KAI-16000

Pixels 4872 x 3248

Pixel Size 7.4 µm Sensor Diagonal 43.2 mm

Megapixels 16 Video Size (inch) 2.7

Full Well Capacity 30,000 electrons

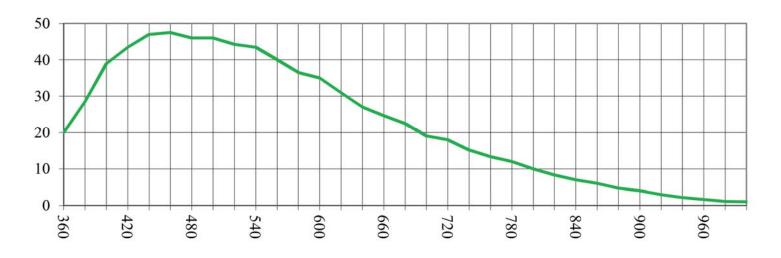
Color Options Mono or Color CCD Grades 1, 2 **CCD Type** Interline transfer

Anti-Blooming 100X

CCD Variants

Sensor Size 36 X 24 mm

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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