

4096 x 4096 Imaging Array

9 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

Features	Benefits
	Fast Image capture with full 16-bit resolution
4096 x 4096 Array with 9 μm pixels	Resolves fine detail
Flexible binning and readout	Increases frame rate
Thermoelectric Cooling to 55°C Below Ambient°C Below	Excellent low-noise imaging
Excellent quantum efficiency	High sensitivity for fast image acquisition
	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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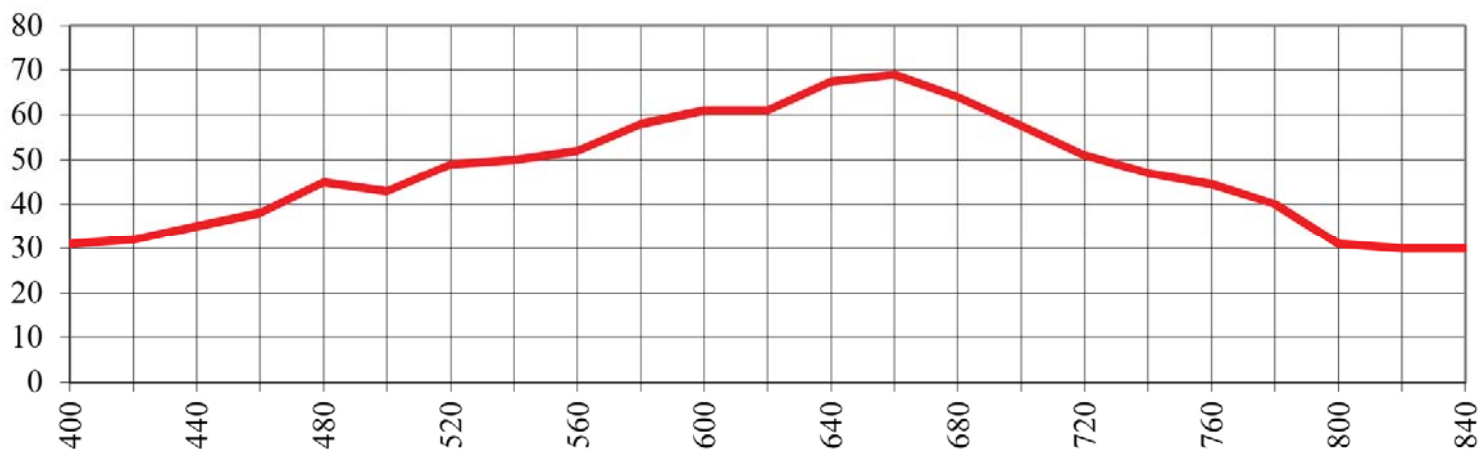
Because Your Image Depends On It.

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

Sensor Specifications (from manufacturer)

Sensor	On Semi KAF-16801	Sensor Size	36.8 X 36.8 mm	Megapixels	16.8
Pixels	4096 x 4096	Sensor Diagonal	52 mm	Video Size (inch)	3.3
Pixel Size	9 μ m	CCD Variants			
Full Well Capacity	100,000 electrons	CCD Grades	Standard		
Color Options	Monochrome	Anti-Blooming	None		
CCD Type	Front Illuminated				

Sensor Quantum Efficiency (Absolute)



Camera Performance

Typical Maximum Cooling	55°C Below Ambient°	Dark Current (typical)	<0.01 electrons/pixel/sec at -35°C
Temperature Stability	0.1°C	Cooling Method	Air (Optional liquid)
Digitization Speed	1 MHz, 8 MHz		
Typical System Noise	9 e- RMS @ 1 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	2.8 lbs (1.2 kg)
Focal Plane to Face Plate	30.23 mm		
Lens Mounts	F-Mount		
Interface	USB 2.0	Camera Channels	
Available Shutters	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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