

MicroLine ML2020

Quality. Cooled. Cameras.

1600 x 1200 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.



Shown with C-mount; other mounts available

Applications

Digital Radiography	Gel Documentation
Astronomy	Forensic Imaging
Bioluminescence	Satellite Imaging
Chemiluminescence	Low Light Level Imaging

Features

Benefits

12 MHz digitization (lower noise options on request)	Fast Image capture with full 16-bit resolution
1600 x 1200 Array with 7.4 μm pixels	Resolves fine detail
Flexible binning and readout	Increases frame rate
Thermoelectric Cooling to 50°C Below Ambient	Excellent low-noise imaging
Excellent quantum efficiency	High sensitivity for fast image acquisition
C-mount; optional Nikon F-mount or Canon EOS 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



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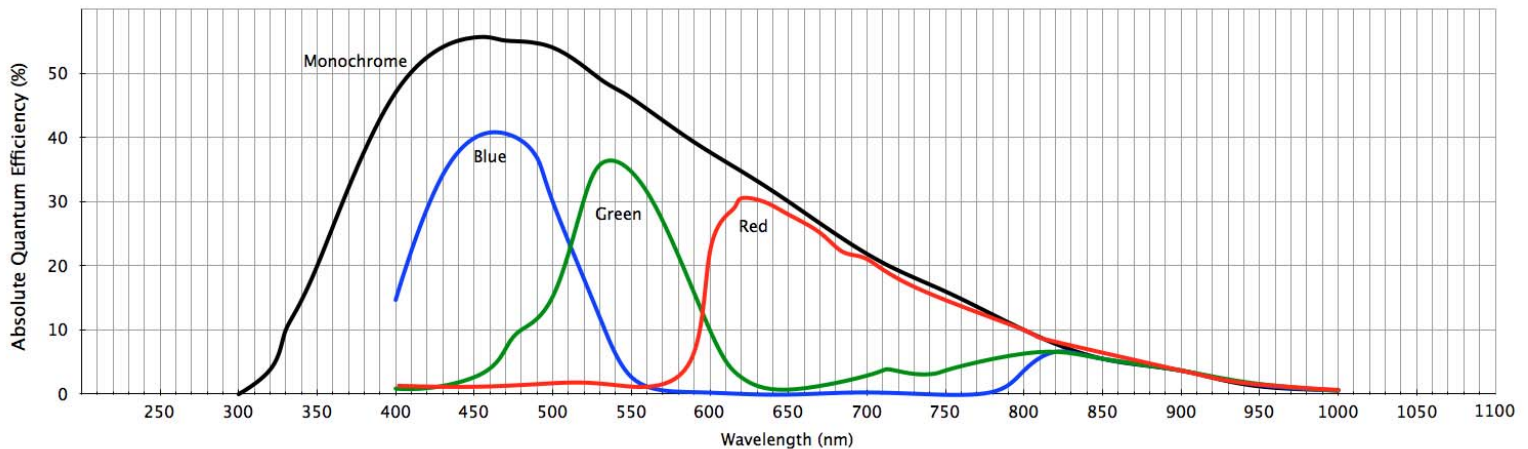
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*Due to continuous development, all specifications subject to change without notice.

Sensor Specifications (from manufacturer)

Sensor	On Semi KAI-2020	Sensor Size	11.8 X 8.8 mm	Megapixels	2
Pixels	1600 x 1200	Sensor Diagonal	14.7 mm	Video Size (inch)	0.9
Pixel Size	7.4 μ m	CCD Variants	Optional non-microlensed		
Full Well Capacity	40000 electrons	CCD Grades	Standard		
Color Options	Mono or Color	Anti-Blooming	300x		
CCD Type	Interline transfer				

Sensor Quantum Efficiency (Absolute)



Camera Performance

Typical Maximum Cooling	50°C below ambient	Dark Current (typical)	0.002 electrons/pixel/sec at -30°C
Temperature Stability	0.1°C	Cooling Method	Air (Optional liquid)
Digitization Speed	12 MHz		
Typical System Noise	11e-	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	15.7 mm optical; 17.5 mm at C-mount		
Lens Mounts	C-mount; optional Nikon F-mount or Canon EOS mount		
Interface	USB 2.0	Camera Channels	
Available Shutters	No internal shutter; optional 25 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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