

ProLine PL4710 AM

Quality. Cooled. Cameras.

1024 x 1024 Imaging Array

13 μm Pixel Size

ProLine sets the standards in key performance areas that include: download speeds, cooling, low noise operation, anti-ghosting technology, image quality, and linearity.

ProLine download speeds are fast while maintaining low noise frame quality. ProLine achieves outstanding cooling without water assist. simply set the ProLine cooling where you want it and the camera will do the rest -- quickly and without worries.

This version of the PL4710 uses a back-illuminated sensor on deep depletion silicon with an enhanced multilayer coating, giving high quantum efficiency across the visible and into the near infrared. Deep depletion silicon has substantially higher dark current than standard silicon.



Applications

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

Features	Benefits
750 kHz and 2 MHz digitization	Fast Image capture with full 16-bit resolution
1024 x 1024 Array with 13 μm pixels	Resolves fine detail
Flexible binning and readout	Increases frame rate
Thermoelectric Cooling to 60°C Below Ambient	Excellent low-noise imaging
Excellent quantum efficiency	High sensitivity for fast image acquisition
Optional Nikon or Canon 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.

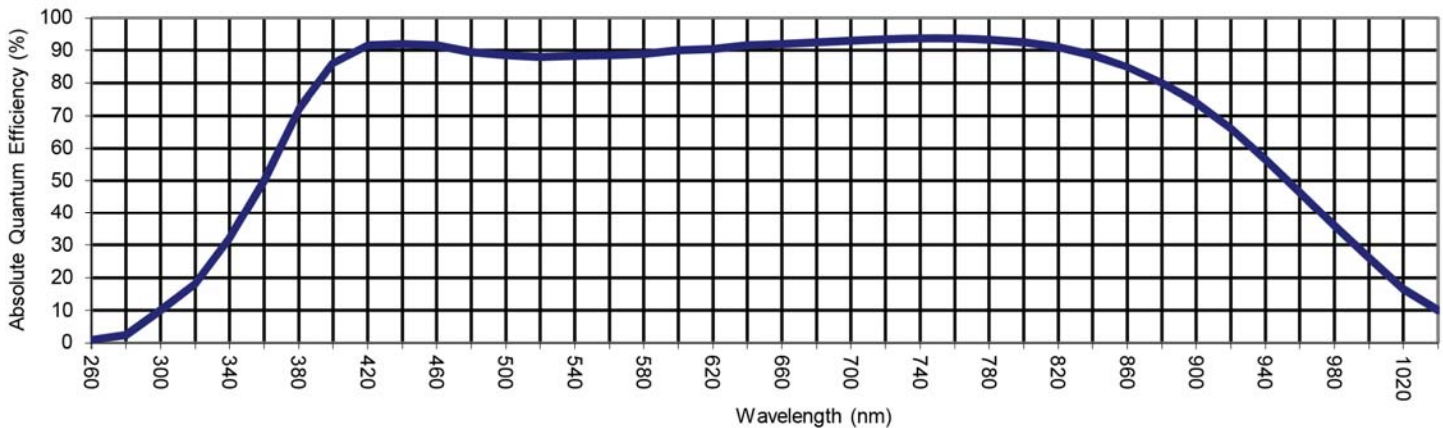
1250 Rochester St.
Lima NY 14485 · USA
585 624 3760
sales@flicamera.com
www.flicamera.com

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

Sensor Specifications (from manufacturer)

Sensor	e2v CCD47-10-1-197 Astro Multilayer-2 (NIMO)				
Pixels	1024 x 1024	Sensor Size	13.3 X 13.3 mm	Megapixels	1.0
Pixel Size	13 μ m	Sensor Diagonal	18.8 mm	Video Size (inch)	1.2
Full Well Capacity	100000 electrons	CCD Variants			
Color Options	Monochrome	CCD Grades	Grade 1		
CCD Type	Back Illuminated	Anti-Blooming	None		

Sensor Quantum Efficiency (Absolute)



Camera Performance

Typical Maximum Cooling	60°C below ambient	Dark Current (typical)	15 electrons/pixel/sec at -40°C
Temperature Stability	0.1°C	Cooling Method	Air (Optional liquid)
Digitization Speed	700 kHz, 2 MHz (up to 4 MHz available)		
Typical System Noise	10 e- RMS @ 700 kHz; 16e- at 2 MHz	Non-Linearity	<1%
Focal Plane to Face Plate	21 mm	Weight	5.6 lbs (2.5 kg)
Typical Gain	1.3 e-/count	Housing	6.2 X 6.2 X 3.8 inches (15.7 X 15.7 X 9.6 cm)
Lens Mounts	Optional Nikon F-mount or Canon EOS mount		
Interface	USB 2.0	Camera Channels	1
Available Shutters	65 mm		
External Triggering	Standard	Shutter MTBF	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%: 4.6A. Shutter open: 4A pulse for 100msec. Shutter held open, add 0.22A.		



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