

ProLine PL23042

Quality. Cooled. Cameras.

2048 x 2048 Imaging Array

15 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. ProLine frame quality is second to none thanks to careful design, implementation, and setup. All cameras are assembled in our clean room under exacting conditions and must pass a battery of tests before being shipped.



Applications

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

Features	Benefits
500 kHz and 3 MHz download	Fast Image capture with full 16-bit resolution
2048 x 2048 Array with 15 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
Optional Nikon F-mount and 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



Engineering Excellence

Because Your Image Depends On It.

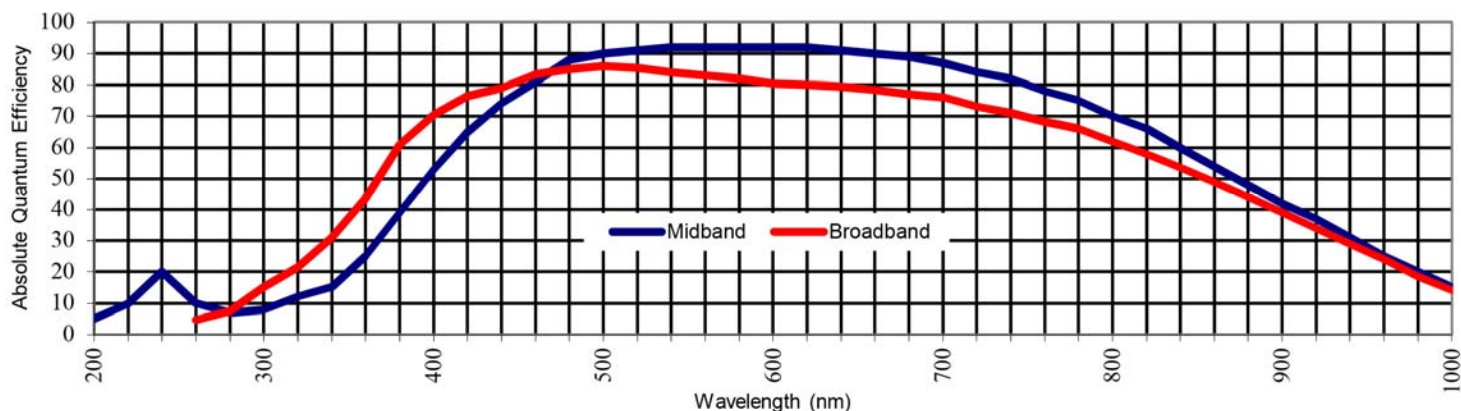
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*Due to continuous development, all specifications subject to change without notice.

Sensor Specifications (from manufacturer)

Sensor	e2v CCD230-42-1-143 (MB); CCD230-42-1-E10 (BB)		
Pixels	2048 x 2048	Sensor Size	30.7 X 30.7 mm
Pixel Size	15 μ m	Sensor Diagonal	43.4 mm
Full Well Capacity	150000 electrons	CCD Variants	Midband
Color Options	Monochrome only	CCD Grades	1
CCD Type	Full frame	Anti-Blooming	NA
		Megapixels	4.2
		Video Size (inch)	2.7

Sensor Quantum Efficiency (Absolute)



Camera Performance

Typical Maximum Cooling	50°C below ambient	Dark Current (typical)	0.2 electrons/pixel/sec at -30°C
Temperature Stability	0.1°C	Cooling Method	Air (Optional liquid)
Digitization Speed	500 kHz & 3 MHz		
Typical System Noise	13e- @ 500 kHz; 22e- @ 3 MHz	Non-Linearity	<1%
Focal Plane to Face Plate	21 mm	Weight	5.6 lbs (2.5 kg)
Typical Gain	1.85 e-/ADU	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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