

ProLine PL16050

Quality. Cooled. Cameras.

4896 x 3264 Imaging Array

5.5 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. 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.

The PL16050 may be manufactured for single channel readout at 4 MHz and 12 MHz (software selectable), or for two channel readout at 10 MHz each. Please specify single or dual channel readout when ordering.



Applications

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

Features

Benefits

Up to 12 MHz Digitization	Fast Image capture with full 16-bit resolution
4896 x 3264 Array with 5.5 μm pixels	Resolves fine detail
Flexible binning and readout	Increases frame rate
Thermoelectric Cooling to 55°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



Engineering Excellence

Because Your Image Depends On It.

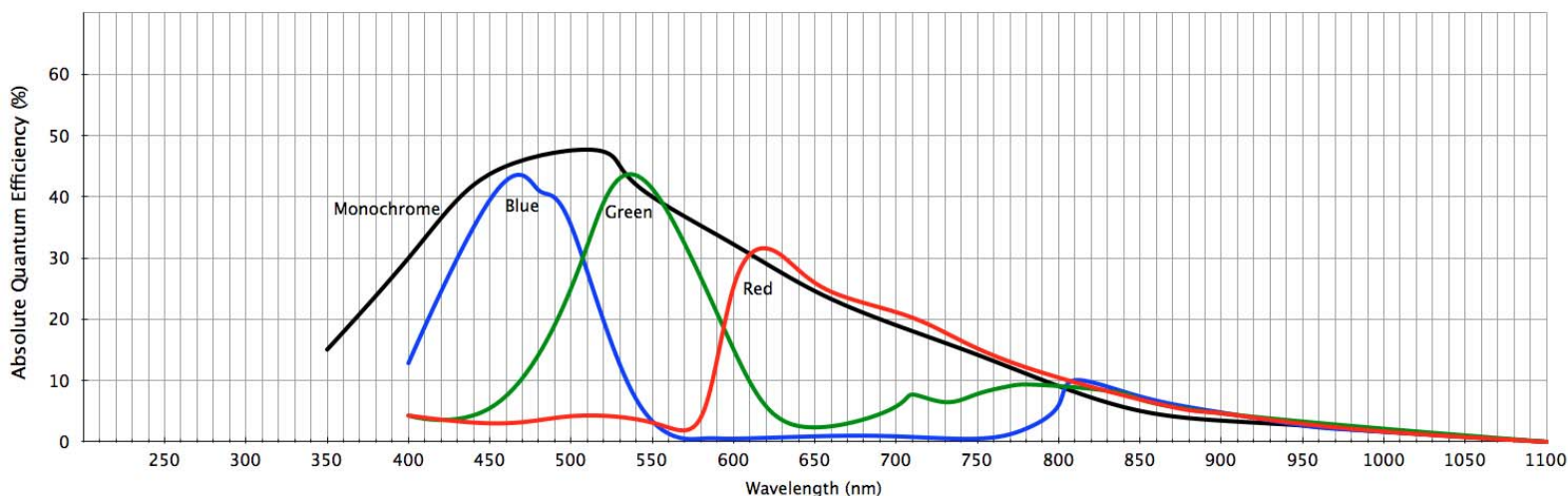
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*Due to continuous development, all specifications subject to change without notice.

Sensor Specifications (from manufacturer)

Sensor	Truesense KAI-16050	Sensor Size	26.9 X 17.9 mm	Megapixels	16
Pixels	4896 x 3264	Sensor Diagonal	32.3 mm	Video Size (inch)	2.0
Pixel Size	5.5 μ m	CCD Variants			
Full Well Capacity	20000 electrons	CCD Grades	1 or 2		
Color Options	Mono or Color	Anti-Blooming	300x		
CCD Type	Interline transfer				

Sensor Quantum Efficiency (Absolute)



Camera Performance

Typical Maximum Cooling	55°C below ambient	Dark Current (typical)	0.00015 electrons/pixel/sec at -35°C
Temperature Stability	0.1 C		
Digitization Speed	4 MHz & 12 MHz (software selectable) or 2 channels at 10 MHz each		
Typical System Noise	8e- RMS @ 4 MHz; 10e- RMS @ 12 MHz	Non-Linearity	<1%
Housing Dimensions	6.2 X 6.2 X 3.8 inches (15.7 X 15.7 X 9.6 cm)	Weight	5.6 lbs (2.5 kg)
Focal Plane to Face Plate	Minimum 21.3 mm (optical). See www.flicamera.com/pdf/focalplane.pdf		
Lens Mounts	F-mount		
Interface	USB 2.0	Camera Channels	1 (optional 2)
Available Shutters	Electronic shutter standard; optional 65mm	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%: 4.6A. Shutter open: 4A pulse for 100msec. Shutter held open, add 0.22A.		



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