

Description

The Harrier 447™ is a high-performance imaging camera for use in applications that demand high resolution and dynamic range. The camera is based upon the CCD 447, a scientific grade 2k x 2k multi-port sensor. The camera boasts a low-noise, multi-speed, multi-port readout architecture providing the optimal combination of frame-rate and sensitivity. Linear, 14-bit dynamic range and sophisticated features such as software control over gain and binning make the Harrier™ a flexible and agile instrument for scientific optical imaging. USB 2.0 provides an easy plug-and-play interface that allows host computer control as well as an efficient data path. The camera is packaged in a compact and rugged housing and supports standard F-mount lenses and mounting hardware.



Features	Benefits
2k x 2k Sensor	High resolution (4 Megapixel)
31 mm x 31 mm Imaging Area	High optical throughput
Multiport Readout	Optimal design for speed and sensitivity
Software Selectable Gain	Tailor system for dynamic range or sensitivity
Linear 14-bit Dynamic Range	Scientific precision and accuracy
TTL trigger I/O	Simple integration with other apparatus
USB 2.0 interface	Easy plug-and-play



Harrier™ 447

Parameter	Specification
Sensor	CCD 447, front-illuminated, scientific grade 1
Resolution	2048 x 2048 pixels
Pixel Size	15 μm x 15 μm
Image Area	31 mm x 31 mm
Peak QE	> 40%
Read Noise	< 30 e- @ 2 MHz
Full Well	> 80 ke- (single pixel)
Linearity	< 1%
Dark Current	< 0.35 e-/pix/millisecond
Output Ports	2
Readout Rate	4 MHz (2 x 2 MHz)
Binning	1x1 or 2x2
Gain	2.5, 5, 10, 20 e-/count (software selectable)
ADC Range	14-bit

Specifications subject to change