Xenics
Infrared Solutions

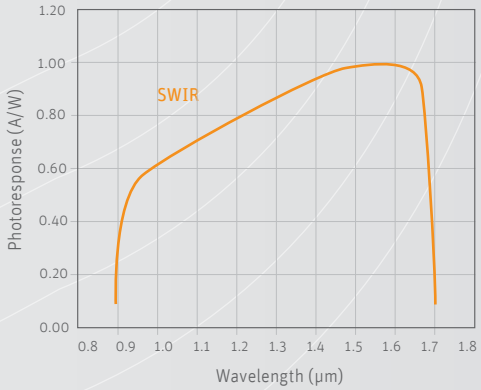
Imagine the invisible

Research & Development

Bobcat-320 Gated

Cooled smart InGaAs camera

Extremely short 100 nsec integration time for SWIR gated imaging



The Bobcat-320 Gated SWIR camera operates in the 0.9 to 1.7 µm spectral band. It provides extremely short integration times down to 100 ns.

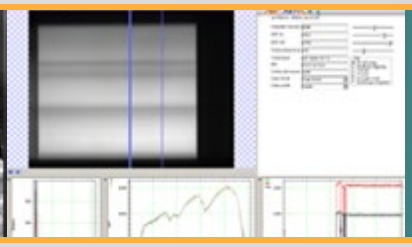
Bobcat-320 Gated makes use of a highly sensitive TE1-cooled InGaAs detector, which is available in a 20 µm pixel pitch. The compact camera contains real-time on-board image processing and image correction all at a very favorable price point.

A special feature of the Bobcat-320 Gated is the programmable trigger-out delay between the internally generated trigger-out pulse and the start of integration. The exposure time of the sensor is configurable from 100 ns up to 1 ms in steps of 100 ns, or 1 ms to 40 ms (standard mode). With all these features, Bobcat-320 Gated is ideally suited for the inspection of light bulbs and hot or fast moving objects.

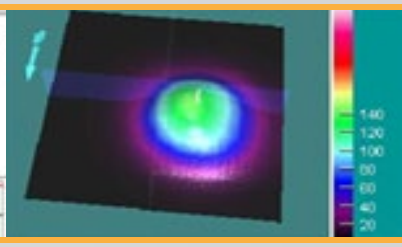
Designed for use in

Light bulb inspection

Turbine blades inspection



R&D SWIR



Laser beam profiling

Applications

- R&D (SWIR) with short integration times
- Laser gated imaging
- Imaging of hot or moving objects such as light bulb or turbine blades inspection
- Measurement systems needing synchronisation of the camera with a pulsed laser

Benefits & Features

- Extreme short 100 nsec integration time
- Programmable trigger out
- Flexible programming in an open architecture
- CameraLink or Ethernet standard interfaces
- High sensitivity and excellent image quality

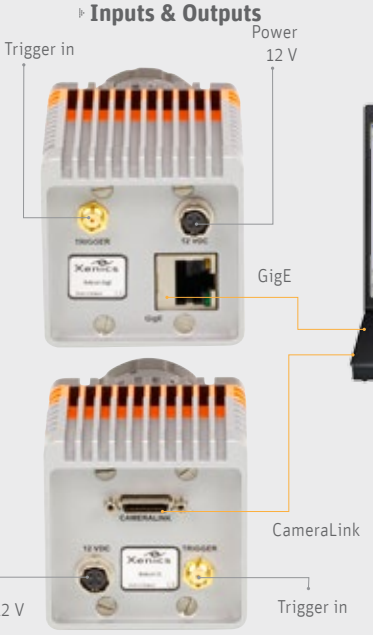
Broad range of accessories available to simplify your research

Lens & filter options

Various focal lengths available

> Discover our Lens Selector Guide
www.xenics.com/LSG

Inputs & Outputs



Software

- Xeneth Advanced (standard)
- Xeneth SDK (optional)
- Xeneth LabVIEW SDK (optional)

Specifications

Camera Specifications	Bobcat-320-CL Gated	Bobcat-320-GigE Gated
Imaging performance		
Maximum frame rate	400 Hz	
Window of intrest	Minimum size 32 x 4	
Exposure time range	0.1 µs to 40 ms	
Readout mode	Integrate Then Read (ITR)	
Dynamic Range*	61 dB	
Noise*	110 e-	
A to D conversion resolution	14 bit	
On-board image processing	Auto-Gain and Offset Auto-exposure	Auto-Gain and Offset
Interfaces		
Optical interface	C-mount	
Camera control	CameraLink	GigE Vision
Digital output	CameraLink	GigE Vision
Trigger	In or out (configurable)	
Power requirements		
Power consumption	2.8 W (without TEC)	4 W (without TEC)
Power supply	12 V	
Physical characteristics		
Shock	40 g, 11 ms, according to MIL-STD810G	
Vibration	5 g (20 to 2000 Hz), according to MIL-STD810G	
Ambient operating temperature range	-40 °C to + 70 °C	
Storage temperature range	-45 °C to 85 °C	
Dimensions	55 W x 55 H x 72 L mm³	55 W x 55 H x 81,7 L mm³
Weight camera head	285 g (lens not included)	334 g (lens not included)

* Typical value

Array Specifications	Bobcat-320 Gated
Array type	InGaAs Focal Plane Array (FPA) ROIC with CTIA** topology
Resolution	320 x 256
Pixel pitch	20 µm
Spectral band	0.9 µm to 1.7 µm
Pixel operability	> 99 %
Array size	6.4 x 5.12 mm²; 8.2 mm diagonal
Array cooling	TE cooled
ROIC noise*	60 e-
Dark current*	0.19 x 10^6 e-/s/pixel at 200 mV bias at 288 K
Full well	125 k e-

** Capacitor TransImpedance Amplifier

Product selector guide

Part number	Interface	Frame rate
XEN-000525	GigE	400 Hz (Gated)
XEN-000585	CL	400 Hz (Gated)

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Xenics
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