

Imagine the invisible

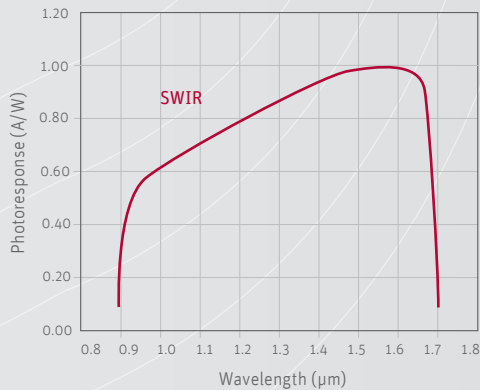
Industrial

# Bobcat-320

Cooled smart InGaAs camera



## Smallest SWIR camera targets cost-sensitive volume markets



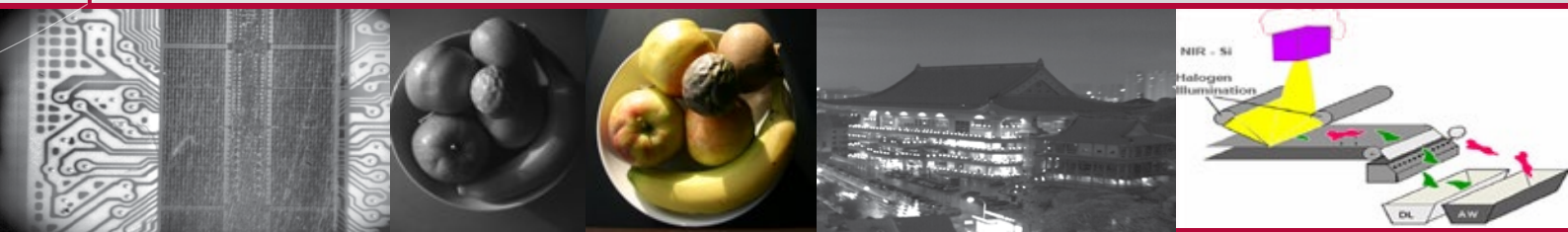
The Bobcat-320 targets cost-sensitive volume markets such as laser beam analysis applications, sorting & recycling industry and investigation of defects inside silicon semiconductor material.

This camera is a small, high performance SWIR camera on which the thermoelectric cooler ensures that the product features excellent low noise and low dark current characteristics.

In addition the Bobcat-320 comes with a CameraLink or GigE Vision interface and features low weight, power and size.

With the Bobcat-320 SWIR camera you can look through glass, so standard available C-Mount lenses and protective camera housings can be used. Again making this camera affordable for a wide variety of industrial applications.

### Designed for use in



⌘ Semiconductor inspection

⌘ Food inspection

⌘ Night vision

⌘ Waste sorting

### Applications

- Waste sorting
- Food inspection
- In-line quality control
- Laser beam analysis
- Thermal imaging of hot objects (300 °C to 800 °C range)
- Semiconductor inspection

### Benefits & Features

- High sensitivity
- Flexible and easy-to-use
- Smallest GigE Vision and Power over Ethernet
- Fast time to market with easy integration
- A basic 100 Hz version, an advanced 400 Hz version

# Broad range of accessories available to simplify your inspection

## ▶ Lens & filter options

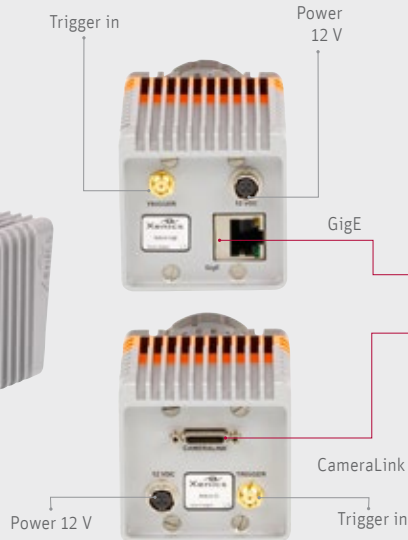
Various focal lengths available



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## ▶ Inputs & Outputs



## ▶ Software



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

## Specifications

Camera Specifications	Bobcat-320-CL	Bobcat-320-GigE
Maximum frame or line rate	100 Hz 400 Hz	
Window of interest	Minimum size 32 x 4 (only for 400 Hz model)	
Exposure time range	1µs to 40 ms	
Readout Mode	Integrate Then Read (ITR)	
Noise*	110 e-	
Dynamic Range*	61 dB	
A to D conversion resolution	14 bit	
On-board image processing	Auto-Gain and Offset, Auto-exposure (400 Hz)	Auto-Gain and Offset
<b>Interfaces</b>		
Optical interface	C-mount	
Camera control	CameraLink	GigE Vision
Image acquisition	CameraLink	GigE Vision
Trigger	In or out (configurable)	
<b>Power requirements</b>		
Power consumption	2.8 W (without TEC)	4 W (without TEC)
Power supply	12 V	
<b>Physical characteristics</b>		
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 mm <sup>3</sup>	55 W x 55 H x 81.7 L mm <sup>3</sup>
Weight camera head	285 g (lens not included)	334 g (lens not included)
* Typical value		

Array Specifications	Bobcat-320
Array type	InGaAs Focal Plane Array (FPA) ROIC with CTIA** topology
Resolution	320 x 256
Pixel size	20 µm
Spectral band	0.9 µm to 1.7 µm
Pixel operability	> 99 %
Array size	6.4 x 5.12 mm <sup>2</sup> ; 8.2 mm diagonal
Array cooling	TE cooled
ROIC noise*	60 e-
Dark current*	0.19 x 10 <sup>6</sup> 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	Cooling
XEN-000583	GigE	100 Hz	TE
XEN-000524		400 Hz	
XEN-000584	CL	100 Hz	
XEN-000526		400 Hz	