Xenics
Infrared Solutions

Imagine the invisible

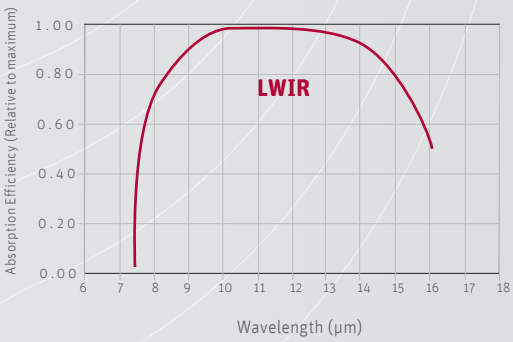
Industrial

Gobi-640-GigE

High resolution uncooled thermal GigE Vision camera

GigE VISION

Smallest thermal GigE Vision camera and easy-to-integrate



The ruggedized Gobi-640-GigE is a reliable thermal imaging camera for non-contact temperature measurements in industrial machine vision or process control.

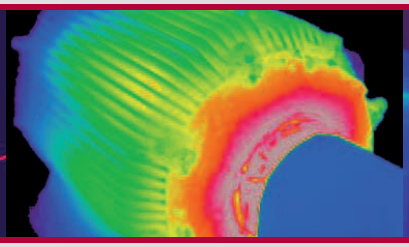
The Gobi-640-GigE is perfectly suited for high speed imaging at full 640x480 resolution with frame rates up to 50 Hz or higher in windowing mode. The Gobi-640-GigE combines high image quality with high thermal resolution (0.05 OC) and accurate thermal analysis capabilities.

The Gobi-640-GigE offers full flexibility regarding system integration. The small GigE interface with Power over Ethernet (PoE) results in an ultra-compact camera and can easily communicate with GenICam-compatible vision software. A variety of interchangeable lenses and industry standard accessories are available as well.

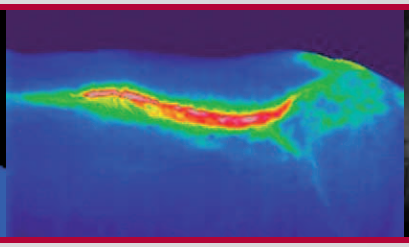
The Gobi-640-GigE comes to market as a premium (50 mK NETD) or base (75 mK NETD) version.

Designed for use in

Maintenance



Monitoring of critical installations



Waste combustion

Pipeline monitoring

Applications

- Electronics hot spot inspection
- NDT: Lock-in thermography
- Accurate temperature measurement
- Quality control and quality assurance
- Real-time process control and monitoring

Benefits & Features

- Ultra-compact industrial LWIR camera
- Advanced on-board image processing
- Easy to export with frame rates of 50 Hz in full resolution
- Best image quality with high sensitivity and low noise values
- Communication with broad range of vision software packages
- Ease of use with GigE Vision interface and interchangeable lenses

Broad range of accessories available to simplify your system

Lens & filter options

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

Inputs

Outputs

Gigabit Ethernet

GigE VISION

Software

- Xeneth Basic
- Xeneth Advanced (optional)
- Xeneth Radiometric (optional)
- Xeneth SDK (optional)
- Xeneth LabVIEW SDK (optional)

Specifications

Camera specifications	Gobi-640-GigE
Lens	
Focal length	Various lenses available
Optical interface	Lens mount supporting multiple lenses
Imaging performance	
Frame rate (full frame)	50 Hz
Window of interest	Minimum size 160 x 120
Integration time	1 µs - 80 µs
Temperature stabilization	No ThermoElectric Cooling required (TEC-less)
Integration type	Rolling shutter
On-board image processing	NUC (Non-Uniformity Correction) Auto-offset & Auto-gain
On-board functionality	Self-starting and trigger possibilities
A to D conversion resolution	16 bit
Interfaces	
Camera control	GigE Vision: GigE
Image acquisition	GigE Vision
Trigger	In or out (configurable)
Power requirements	
Power consumption	< 4.5 W
Power supply	12 V DC
Physical characteristics	
Shock	40 g, 11 ms according to MIL-STD810G
Vibration	5 g (20 Hz to 2000 Hz) according to MIL-STD883J
Ambient operating temperature	- 40 °C to 60 °C (industrial components)
Storage temperature	- 45 °C to 85 °C (industrial components)
Dimensions	49 W x 49 H x 79 L mm³ (lens not included)
Weight camera head	263 g (lens not included)

Array specifications	Gobi-640-GigE
Array type	Uncooled microbolometer (a-Si)
Spectral band	8 µm to 14 µm
# pixels	640 x 480
Pixel pitch	17 µm
NETD	≈ 50 mK @ 30°C with F/1 lens < 75 mk @ 30°C with F/1 lens
Array cooling	Uncooled
Pixel operability	> 99%

Product selector guide

Part number	NETD (mK)	Frame rate (Hz)	Interface
XEN-000088	50	50	GigE Vision
XEN-000401	75		
XEN-000402		9	

Thermography calibrations*

Part number	Temperature range
MSC-000001	-20 °C to 120 °C
MSC-000004	50 °C to 400 °C
MSC-000002	300 °C to 1200 °C
MSC-000043	1000 °C to 2000 °C

**Thermography accuracy +/- 2 °C or +/- 2 % (whichever is the highest) $T_{detecor}$ of 25 °C to 50 °C.*

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www.xenics.com
www.sinfrared.com

Xenics Headquarters
Ambachtenlaan 44, BE-3001 Leuven, Belgium
T +32 16 38 99 00 • sales@xenics.com

Xenics
Infrared Solutions

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