

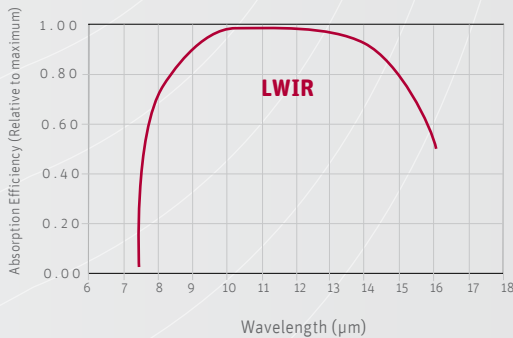
Imagine the invisible

Industrial

Gobi-640-GigE

High resolution
uncooled thermal GigE Vision camera

Smallest thermal GigE Vision camera and easy-to-integrate



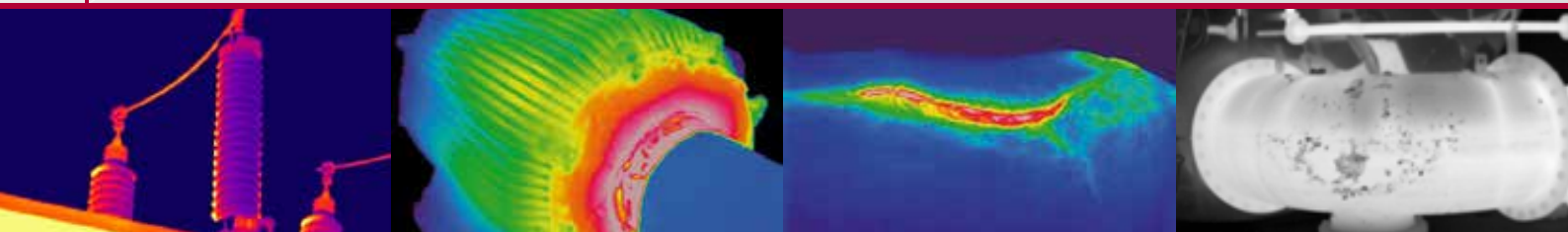
The ruggedized Gobi-640-GigE is a reliable thermal imaging camera for non-contact temperature measurements in industrial machine vision or process control.

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 °C) 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.

Designed for use in



⌘ Maintenance

⌘ Monitoring of critical installations

⌘ Waste combustion

⌘ Pipeline monitoring

Applications

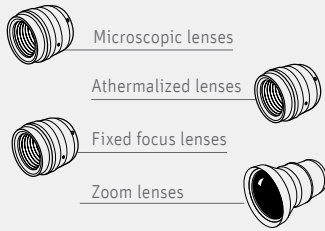
- Electronics hot spot inspection
- NDT: Lock-in thermography
- Accurate temperature measurement
- Quality control and quality assurance
- Real-time process control and monitoring

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



▶ Inputs



▶ Software



▶ Outputs

Gigabit Ethernet
GigE
VISION

- Xeneth
- 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 μ s - 80 μ s
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 mm ³ (lens not included)
Weight camera head	263 g (lens not included)

Array specifications	Gobi-640-GigE
Array type	Uncooled microbolometer (a-Si)
# pixels	640 (W) x 480 (H)
Pixel pitch	17 μ m
Spectral band	8 μ m to 14 μ m
NETD	55 mK @ 30°C with F/1 lens
Array cooling	Uncooled
Pixel operability	> 99.5%*

*excludes 3 peripheral lines and columns

▣ Product selector guide

Part number	NETD (mK)	Frame rate (Hz)	Interface
XEN-000088	55	50	GigE Vision

▣ Thermography calibrations*

Part number	Temperature range**
ASY-001301	-20 °C to 120 °C
ASY-001302	50 °C to 400 °C
ASY-001333	300 °C to 1200 °C
ASY-001334	1000 °C to 2000 °C

*Only with selected lenses. Contact Xenics for more details.

** Thermography accuracy +/- 2 °C for positive temperatures up to 100 °C and 2% for higher temperatures for $T_{detector}$ of 25 °C to 50 °C. This parameter should be interpreted as accuracy under the stable laboratory conditions in which the calibration was conducted.