

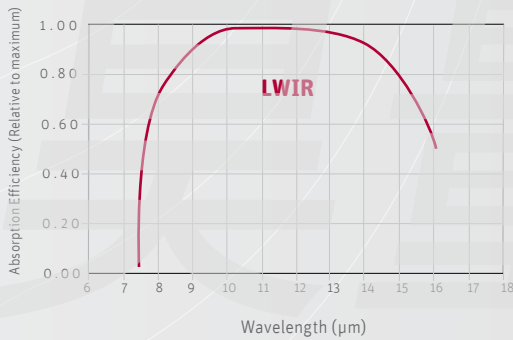
Imagine the invisible

Industrial

# Gobi-640-GigE

High resolution  
uncooled thermal GigE Vision camera

## Smallest thermal GigE Vision camera and easy-to-integrate



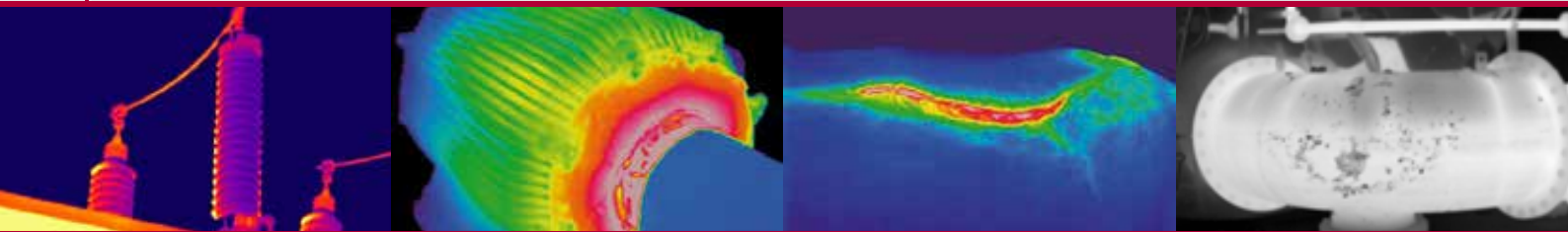
The ruggedized Gobi-640-GigE is a reliable thermal imaging camera for non-contact temperature measurements in industrial machine vision or process control.

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

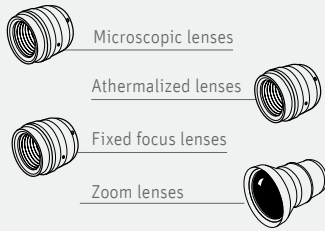
- Electronics hot spot inspection
- NDT: Lock-in thermography
- Accurate temperature measurement
- Quality control and quality assurance
- Real-time process control and monitoring

### 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



- Xeneth
- Xeneth SDK (optional)
- Xeneth LabVIEW SDK (optional)

## Specifications

Camera specifications	Gobi-640-GigE
<b>Lens</b>	
Focal length	Various lenses available
Optical interface	Lens mount supporting multiple lenses
<b>Imaging performance</b>	
Frame rate (full frame)	50 Hz
Window of interest	Minimum size 160 x 120
Integration time	1 $\mu$ s - 80 $\mu$ 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
<b>Interfaces</b>	
Camera control	GigE Vision: GigE
Image acquisition	GigE Vision
Trigger	In or out (configurable)
<b>Power requirements</b>	
Power consumption	< 4.5 W
Power supply	12 V DC
<b>Physical characteristics</b>	
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 <sup>3</sup> (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 $\mu$ m
Spectral band	8 $\mu$ m to 14 $\mu$ 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.