



Scientific



New

Gobi-384

Breaking new ground
in thermal imaging

Imagine the invisible

www.xenics.com


Xenics
Infrared Solutions

Smart and affordable Gobi-384 simplifies the way you work

The Gobi-384 is a compact thermal infrared camera fitted with a unique on-board Digital Signal Processor (DSP) for improved real-time image processing.

Bring your thermal imaging to the next level

With its higher than normal image quality allowing for detection of temperature differences as small as 0.05°C, the Gobi-384 is designed for use by researchers and engineers. Its easy plug-and-play infrared camera system and exclusive on-board Digital Signal Processor (DSP) allows for real-time image correction and recognition. This combination makes it ideal for instant, accurate and cost-effective evaluation of your thermal imaging. Using the Gobi-384 will bring your analysis to the next level of accuracy! Need for customization? A variety of industry-standard accessories is available.

Advantages

- Cost-reducing smart infrared solution
- Very compact housing
- Complete infrared camera system
- Uninterrupted and easily programmable operation
- Industry standard accessories

Designed for use in

- Thermal imaging (8-14 μm band)
- R&D
- Medical imaging
- Process control

Benefits & Features

High definition images

44% higher pixel count than systems based on the same detector technology.

High sensitivity

Detection of temperature differences as small as 0.05°C.

Smart infrared camera

Custom image processing algorithms on the camera hardware.

Comprehensive thermal analysis

Interface with Thermography Studio for dynamic analysis and recording.

Suited for scientific applications

Interface for easy communication and reliable data transfer.

Flexible programming in an open architecture

Software Development Kit (SDK) supporting C++, Visual Basic, LabView or Linux.

TCP/IP Interface

Up to 50 images per second over a standard 100 Mbit/sec Ethernet connection.

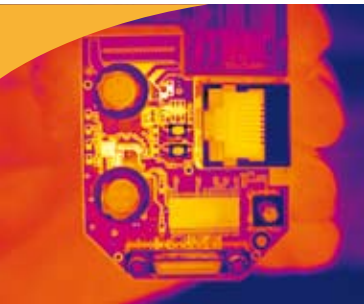
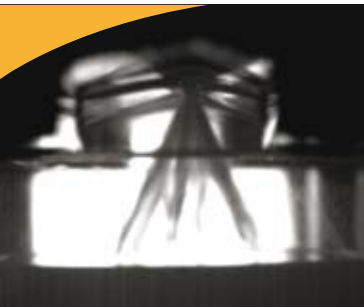
Affordable multipurpose package

As easily tuned as an IP network camera or directly connected to a PC or video monitor.

Exchange of lenses

A variety of wide angle or narrow FOV lenses are available.





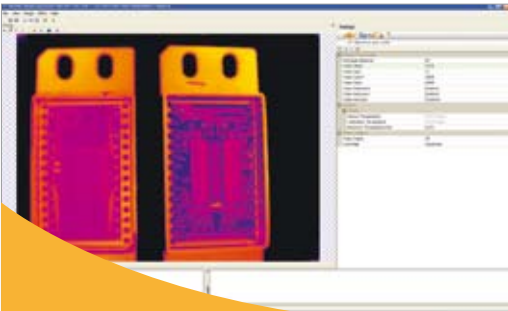
Array Specifications

Array Type	Uncooled microbolometer (a-Si)
Spectral band	8 to 14 μm
# Pixels and pitch	384 x 288; 25 micron pitch
Array operability	> 99.9%
Sensitivity (NETD)	Premium version: $\geq 50 \text{ mK @ } 30^\circ\text{C}$ with f/1 lens
Operating temperature range	-40°C to $+50^\circ\text{C}$
Storage temperature range	-50°C to $+85^\circ\text{C}$

Camera Specifications

Gobi-384

Lens (included)		
Focal length/Field of View (FOV)	18 mm f/1, HFOV 25.5°. Standard, manual focus	
Imaging performance		
Frame rate (full frame)	Analog output	Digital interface
	25 Hz over PAL 30 Hz over NTSC	50 Hz in 8 bit mode 25 Hz in 16 bit mode* <small>*depending on network load</small>
Non Uniformity Correction (NUC)	DSP-controlled, shutterless as option	
Temperature stabilization	DSP-controlled, no thermoelectric cooling required (TEC-less)	
A to D conversion resolution	16 bit	
Window of Interest	Yes	
Interfaces		
Analog out	PAL (CCIR) or NTSC (RS 170)	
Camera control/ Image acquisition	Ethernet (TCP/IP), CameraLink	
Trigger	LV CMOS (Low Voltage 3V Schmitt-trigger input)	
Operating mode	Stand-alone or PC-controlled	
Graphical User Interface (GUI)	Xeneth Advanced	
Power requirements		
Power consumption	3,6 W	
Power supply	12 V	
Physical characteristics		
Dimensions	70 L x 65 W x 74 H mm (without lens)	
Weight camera head	< 500 g (without lens)	
Shock	70 G, 2 ms halfsine profile (without shutter)	
Vibration	2 G (5Hz to 500 Hz)	
Humidity	5% - 95% non condensing	



☛ Xeneth Graphical User Interface (GUI) features

Xeneth Advanced	
Software control	<ul style="list-style-type: none"> • Image live view • Store digital Pictures / Movies • Image histogram • Line profiles, Spot meters, Time profiles
	<ul style="list-style-type: none"> • Subframe dimension and position • Digital zoom
	<ul style="list-style-type: none"> • Black hot / White hot • Flip Video: Left / Right, Up / Down • False color mode with various color palettes
Switch Video output format	• PAL (CCIR) or NTSC (RS 170)
Gain modes	• Manual / Auto Gain / Level

Xenics software driver is fully compatible with Windows XP Pro and Windows Vista. A dynamic link library (DLL) to communicate with the driver has been designed for flexible software development. A well-documented API with sample code in C is supplied upon request.

☛ Product Selector Guide

Gobi-384 Part number	Sensitivity (NETD)	Shutter	Frame rate (Hz)	Digital Interfaces	Analog out
G004C750S	Premium: ≥ 50 mK	✓	50	Ethernet / CL	PAL (CCIR)
G004C751S	Premium: ≥ 50 mK	✓	9	Ethernet / CL	PAL (CCIR)
G004C750SN	Premium: ≥ 50 mK	✓	50	Ethernet / CL	NTSC (RS 170)
G004C751SN	Premium: ≥ 50 mK	✓	9	Ethernet / CL	NTSC (RS 170)

☛ Inputs



☛ Accessories

Lenses Part number	Focal Length	HFOV	Optional
XC509-302	18 mm f/1	30°	Included
XC509-303	25 mm f/1	22°	✓
XC509-306	50 mm f/1	11°	✓
XC509-305	75 mm f/1	7.3°	✓

* Please specify lens order code on the order.

Thermography Part number	Description	Available on following cameras
TH0120	Temperature calibration from -20°C to 120°C	Check with sales
TH0400	Temperature calibration from 0°C to 400°C	Check with sales
TH1200	Temperature calibration from 0°C to 1200°C	Check with sales

* Thermography option: with shutter only

☛ Outputs

Information furnished by Xenics is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions. Specifications are subject to change without notice. This information supersedes all previously supplied information.



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▣ About Xenics

Xenics is a leading developer of innovative infrared detection solutions. We design, manufacture and sell infrared detectors and cameras, both linescan and 2-D, covering the infrared wavelength ranges from 0.4 to 14 micrometers. In addition, Xenics delivers tailor-made solutions produced according to customer-agreed specifications and planning. As a European vendor with a worldwide service and distributor network, we are strategically placed to serve global markets with highly innovative products drawing on a strong science and technology background.

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