



New

Gobi-384

Breaking new ground
in thermal imaging

Imagine the invisible



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**adept
electronic solutions**

**The Machine Vision and
Imaging Specialists**

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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.

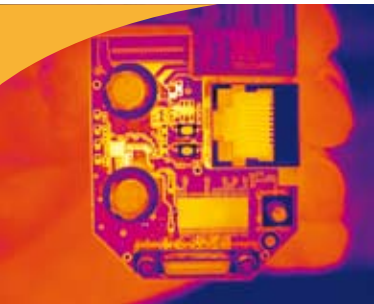
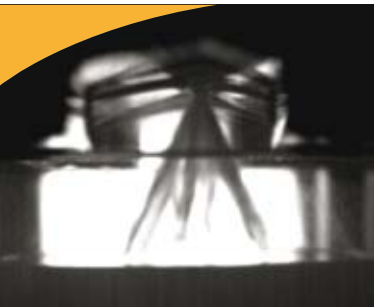
Affordable multipurpose package

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.

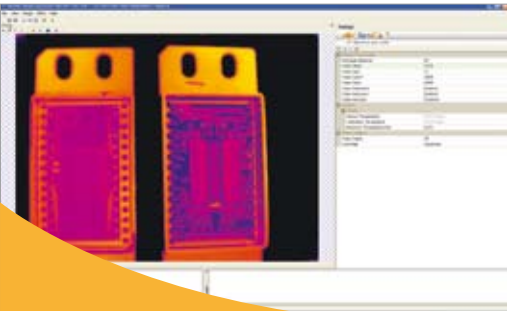




| Array Specifications | |
|-----------------------------|---|
| Array Type | Uncooled microbolometer (a-Si) |
| Spectral band | 8 to 14 μm |
| # Pixels and pitch | 384 x 288; 25 micron pitch |
| Array operability | > 99.9% |
| Sensitivity (NETD) | Premium version: $\geq 50 \text{ mK @ } 30^\circ\text{C}$ 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 | 74 x 70 x 65 mm ³ (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 | <ul style="list-style-type: none"> PAL (CCIR) or NTSC (RS 170) |
| Gain modes | <ul style="list-style-type: none"> 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 | 25.5° | Included |
| XC509-303 | 25 mm f/1 | 18.4° | ✓ |
| XC509-306 | 50 mm f/1 | 9.2° | ✓ |
| XC509-305 | 75 mm f/1 | 5.8° | ✓ |

* Please specify lens order code on the order.

| Thermography Part number | Description | Availability |
|--------------------------|---|------------------|
| 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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