# Xenics
## Infrared Solutions

**High resolution
uncooled thermal camera**

# 360° perimeter security

"A 360° perimeter security system that operates 24/7 thanks to Xenics thermal cameras"

Perimeter security is a blooming market due to various global conflicts and threats. Solutions for the early detection of theft, fire, trespassing or intrusion are very important for the protection of critical infrastructures, borders, harbors and other territories. A 360° surveillance system, based on the Gobi-640 thermal camera, is an efficient and cost-friendly monitoring solution to keep your property safe, day and night.



Figure 1: FOVEA - 360° monitoring system



Figure 2: FOVEA in use

## Perimeter security solution

To establish a succesful perimeter security system a number of parameters need to be taken into account. First of all, reliability is an important factor. Secondly, the system needs to detect risks, evaluate them and send an alert to the operators. To operate 24/7 a solution needs to be found for operation in the dark. A thermal imager is a perfect night vision system as it images temperature differences instead of reflected light.

## FOVEA - 360° monitoring system

The FOVEA from Syperion Vision is a 360° monitoring system capable of observing large perimeters up to several kilometers. It continuously captures high resolution images from a central point and detects and automatically evaluates motion or changes within the field of view. Due to the fast rotation of the FOVEA you can cover a huge perimeter without the need for additional surveillance cameras at multiple locations. Furthermore, a special tracking algorithm allows changes in the FOV not only to be displayed, but also to be tracked with the camera.

In contrast to systems with a pivoting camera, FOVEA captures focused images while rotating and stitches them together to form a panorama of the environment in real time. The rotation speed can be as high as 180° per second, making reliable surveillance possible. As the integrated cameras do not move it is possible to use any type of camera in the system.

The FOVEA X50 system is equipped with the Gobi-640 thermal camera for night vision applications. The system is able to monitor an area over 3 million square meters, 24/7. The used camera, a Gobi-640, is an uncooled thermal imaging camera with excellent Detection, Recognition and Identification values due to its high resolution and small pixel pitch. The camera's flexible interfacing makes it easy to integrate into the FOVEA.
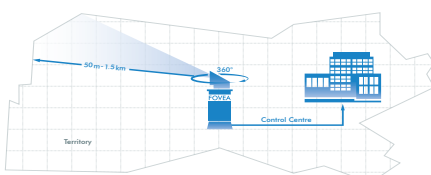
## Advanced uncooled thermal cameras & OEM modules

### Gobi-640 & XTM-640

| | |
|---|---|
| Array type | Uncooled microbolometer (a-Si) |
| Spectral band | 8 µm to 14 µm |
| Resolution | 640 x 480 |
| Pixel pitch | 17 µm |
| Frame rate (full frame) | 50 Hz |
| Interface | Analog out, Gigabit Ethernet (GigE Vision compatible), CameraLink, 16 bit digital video or BT.656 |
| Trigger | Trigger in |
| On-board image processing | Non-Uniformity Correction, Auto-Offset & Auto-Gain with selectable region of interest, Histogram equalization, XIE |
| Lenses | Broad range of lenses available from fixed focal length and wide FOV to long-range motorized zoom lenses with 8 x optical zoom |

### ⊪ Customer testimonial

"Together with Xenics it was possible to setup a reliable and affordable system for customers who want to protect their property and even gather data about possible threats. The support we received from Xenics helped us maximizing the progress of the development and the ability to adapt the system to the needs of the customer."

Dr. Frank Elandaloussi

**www.syperion.de**

**Xenics nv**

Headquarters

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

**Xenics USA, Inc.**

North and Latin American office

600 Cummings Center, Suite 166-Y
Beverly, MA 01915-6194
USA
T +1 978 969 1706
sales@xenics-usa.com

**sInfraRed Pte Ltd**

Asian sales, manufacturing and custom solutions office

Blk 28 Sin Ming Lane
#06-143, Midview City
Singapore 573972
T +65 6 47 666 48
sales@sinfrared.com

**Xenics LLC**

Russian representative and service center

Dmitrovskoye Highway, 9A/5
127434 Moscow
Russia
T +7 985 763 4526
sales@xenics.ru

**www.xenics.com**
**www.sinfrared.com**

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ISO 9001:2015 certified