



New

Raven-384

Security solutions
with smart infrared cameras

Imagine the invisible



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**The Machine Vision and
Imaging Specialists**

Perth: +61 (08) 9242 5411
Sydney: +61 (02) 9979 2599
Melbourne: +61 (03) 9555 5621
Email: adept@adept.net.au
Web: <http://www.adept.net.au>

www.xenics.com

<http://www.adept.net.au>

Xenics
Infrared Solutions

Smart and affordable Raven-384 protects your facilities



🔍 Infrared Cameras for Security Applications

The Raven-384 is an infrared imaging camera, specially designed for the demanding security market. The thermal image is crisp and clear, even under difficult weather conditions and in complete darkness without the use of additional illumination.

To meet the needs of the professional security community the Raven-384 can be configured with various lenses for short-range, medium-range and long-range observation. The camera interface can be PAL/NTSC video for a regular CCTV security network or optional Ethernet for a digital LAN. Standard delivery includes a common power supply and connecting cables. The integration and use of these infrared cameras are so easy, that no operator training is required.

The detector of the Raven-384 has a very high resolution of 384 x 288 pixels, more than any regular infrared security camera, and offers the earliest and most reliable detection of even the smallest temperature change and the smallest object.

The software, integrated in the Raven-384 guarantees excellent image quality without the need for adjustment. The built-in Digital Signal Processor (DSP) is programmable and can turn the camera into a smart camera.

The typical use of the Raven-384 is for the protection of borders, ports, airports, nuclear and conventional power plants, petrochemical production and storage facilities, strategic infrastructures, etc.

Designed for use in

- Border control
- Surveillance
- Perimeter security
- Search & Rescue (SAR)
- Traffic safety
- Enhanced vision (EVS)
- Firefighting
- Law enforcement
- Night vision
- Maritime
- Airborne

🔍 Top: Border control infrared
🔍 Bottom: Border control visual



🔍 Surveillance

One of the most common applications of infrared imaging is surveillance. Armed Forces and law enforcement agencies nowadays deploy infrared imaging systems, replacing the night vision systems based on the vidicon tube technology. Depending on the specific goal of the infrared system (general surveillance, detection, recognition, identification) our reliable LWIR cameras are perfectly suited to cover this task.

🔍 Perimeter security



Buildings, power plants, refineries, strategic facilities, military complexes, airports, harbours, correctional institutions and other sensitive objects or areas often have multiple of our infrared imaging cameras, serving as a safety barrier to detect and to identify potential threats and dangers, such as unauthorized entry or intrusion.

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

Benefits & Features

- **Excellent connectivity**

Whether you need to replace a daylight camera in an analog video surveillance network or integrate it in a LAN or WAN, the easy IP/Video setup switch makes the Raven-384 the right choice.



- **High definition images**

44% more pixels than systems based on the same detector technology.

- **Rugged and Lightweight**

You can use the Raven-384 directly as an off the shelf product or mounted in most standard protective housings.

- **Exchange of lenses**

Easily switch between several wide angle or narrow FOV lenses.

Passive IR imaging for improved security awareness

Thanks to excellent image quality and small configuration, the Raven-384 is designed for instant, accurate and cost effective integration into most complex security and night vision applications. The Raven-384 is equipped with an exclusive on-board Digital Signal Processor (DSP) that allows for real-time image correction and for additional image processing algorithms, such as used for intrusion detection or in early fire detection system.

The analog video-out interface makes it an easy plug-and-play infrared camera system. Whether combined with a standard wide FOV lens, or used with a zoom lens, the Raven-384 will bring you improved security awareness!

Search & Rescue (SAR)

Under the worst weather conditions and mostly at night Search & Rescue (SAR) teams have to go out and search for victims or objects. Our infrared imaging and thermal imaging contribute to the efficiency and the overall result of the search. Our infrared cameras can be installed on mobile platforms such as vehicles and vessels, airborne platforms, and as fixed monitoring positions on roofs, posts and railings.

Top: Traffic safety
Bottom: Vision enhancement




Enhanced vision (EVS)

Enhanced vision is created by the combination of our infrared imaging cameras working in different wavelengths, thus improving the sight of the flight crew considerably. Unfavourable weather conditions such as snow, rain, sleet and fog can be penetrated when looking at different wavelengths. Potential hazards such as power lines, defective landing lights, unauthorized vehicles on the runways, etc. can be easily seen and identified when using enhanced vision.

Top: Firefighting infrared
Bottom: Firefighting visual



Array Specifications	
Array Type	Uncooled microbolometer (a-Si)
# Pixels and pitch	384 x 288; 25 micron pitch
Array operability	> 99.9%
Operating temperature range	-40°C to +50°C
Storage temperature range	-50°C to +85°C

Optional Xeneth Graphical User Interface (GUI) features	
Xeneth Basic	
Software control	<ul style="list-style-type: none"> Image live view Store digital Pictures / Movies
	<ul style="list-style-type: none"> Black hot / White hot

Camera Specifications		Raven-384
Lens (included)		
Focal length	19 mm f/1.1	
Imaging performance		
Non Uniformity Correction (NUC)	DSP-controlled, shutterless as option	
Interfaces		
Analog out	PAL (CCIR) or NTSC (RS 170)	
Camera control	Optional Ethernet (TCP/IP)	
Power requirements		
Power consumption	3,4 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	

Product Selector Guide				
Raven-384 Part number	Sensitivity (NETD)	Shutter	Frame rate (Hz)	Analog out*
RA04P150S	Premium: ≥50 mK	✓	50	PAL/NTSC
RA04P100	Base: ≥80 mK	-	50	PAL/NTSC
RA04P100S	Base: ≥80 mK	✓	50	PAL/NTSC
RA04P101	Base: ≥80 mK	-	9	PAL/NTSC
RA04P101S	Base: ≥80 mK	✓	9	PAL/NTSC

* Add /N to the partnumber for NTSC

Accessories				
Lenses Part number	Focal Length	HFOV	VFOV	Optional
XC509-302	18 mm f/1	30°	23°	✓
XC509-303	25 mm f/1	22°	16,5°	✓
XC509-308	19 mm f/1,1	29,4°	21,5°	included
XC509-309	60 mm f/1,25	9,2°	6,8°	✓

* Please specify lens order code on the order



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.

Xenics Headquarters

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

sInfraRed

Asian sales, manufacturing
and custom solutions office
221 Queensway #12-10
Viz Holland
Singapore 276750
T +65 6 47 666 48
sales@sinfrared.com

Xenics North America

130 Grove Street
Lexington · MA 02420
USA
T +1 781 274 98 93
luc.debrouckere@xenics.com

Xenics South America

Rue Alvaro Rodrigues 182 SL 44
Cep: 04582-000
São Paulo · SP, Brasil
T +55 11 5561 0778
paul.verminnen@xenics.com

