



XS-1.7-320

Security solutions with
flexible infrared vision

Imagine the invisible

Excellent clarity even in moonless nights with XS-1.7-320



Protection through reliable IR imaging

Infrared technology is a modern and advanced method to detect and analyse phenomena, normally hidden for the human eye. Infrared imaging in all its facets, so not limited to infrared thermal imaging, is shaping up as a valuable tool to see, to measure and to understand what is there, even in total darkness.

Where do Xenics' infrared cameras add value to security applications?

Our Short Wave Infrared (SWIR) cameras based on in-house InGaAs technology are perfectly suited for utilising the nightglow phenomenon. They can "see" objects with excellent clarity also in a moonless night. One of the advantages of our cameras is that the nightglow is emitted equally by the entire sky, and at all geographical latitudes. If required covert illumination sources (e.g. specific lasers or LEDs), which are invisible for the human eye or to other night vision detection systems, can be applied to highlight and identify objects at short or very long distances.

Designed for use in

- Surveillance
- Perimeter security
- Search & Rescue (SAR)
- Enhanced vision (EVS)

Top: night vision SWIR
Bottom: night vision 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 SWIR 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.

In a very compact housing, the XS-1.7-320 digital infrared camera combines an uncooled InGaAs detector head and the control and communication electronics.

Benefits & Features

- **High quality images from a compact camera**
320 x 256 pixels for high quality images from a compact camera.
- **Exchange of lenses**
A variety of wide angle or narrow FOV lenses are available.
- **Analog out connectivity**
You can easily replace a daylight camera in a surveillance network or integrate it in a LAN or WAN with analog video output.
- **Rugged and Lightweight**
You can use the XS-1.7-320 directly as off the shelf product or mount it in most standard protective housings.
- **Covert and eye-safe illumination**
The XS-1.7-320 is the best choice for night vision both at short range and at long range.



Active IR imaging with covert eye-safe illumination

With its excellent image quality and its small configuration, the XS-1.7-320 is designed for instant, accurate and cost effective integration into most complex security and night vision applications.

The XS-1.7-320 unit is equipped with an optimized InGaAs detector array working up to 1.7 μm , and its analog video-out interface makes it an easy plug-and-play infrared camera system.

The camera comes with a standard wide FOV lens but also offers the flexibility to use various types of C-Mount based zoom lenses. Whether combined with active covert and eye-safe illumination, or used as a passive detection device, the XS-1.7-320 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 short wave infrared 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.

Short range monitoring



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: covert illumination Bottom: visual



Camera Specifications	
Inputs	
Lens (included)	
Focal length	16 mm f/1.4
Optical interface	C-Mount (Broad selection of lenses available)
Imaging performance	
Frame rate (full frame)	60 Hz over NTSC 50 Hz over PAL
Integration type	Snapshot
Interfaces	
Analog out	PAL or NTSC
Power requirements	
Power consumption	<4 Watt
Power supply	12 V
Physical characteristics	
Ambient operating temperature	0 to 50 °C
Dimensions	50 L x 50 W x 50 H mm
Weight camera head	225 g

Array Specifications	
Array Type	InGaAs
Spectral band	Standard 0.9 to 1.7 μ m
# Pixels	320 x 256
Pixel Pitch	30 μ m
Array Cooling	Uncooled
Pixel operability	> 99%

Product Selector Guide			
XS-1.7-320 Part number	Frame rate (Hz)	Analog Interface	ADC
XC117-NTSC	60 Hz	NTSC	14 bit
XC117-PAL	50 Hz	PAL	14 bit

Accessories		
Cables Part number	Description	Available on following cameras
XC603	Analog out triad to coax	XC117-NTSC, XC117-PAL



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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