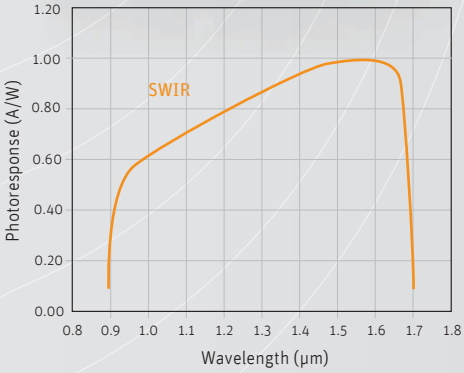
Xenics
Infrared Solutions

Imagine the invisible

Scientific

Xeva-1.7-320 Thermography

Advanced research in SWIR imaging



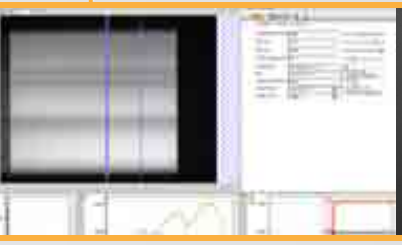
Cooled and stable SWIR imaging for excellent thermography research

In one compact housing, the Xeva-1.7-320 Thermography digital camera combines a thermo-electrically cooled InGaAs detector head and the control and communication electronics.

The Xeva-1.7-320 Thermography unit is available with standard (up to 1.7 µm) InGaAs detector arrays and comes in various speed versions: 60 Hz, 100 Hz and 350 Hz. It allows you to choose the most suitable detector-camera configuration for your specific application. The camera head interfaces to a PC via standard USB 2.0 or CameraLink.

Each camera is delivered with a graphical user interface Xeneth, which offers direct access to various camera settings such as exposure time and operating temperature. The software tools include two-point uniformity correction and bad pixel replacement.

Designed for use in



R&D SWIR

Food inspection

Art inspection

Applications

- R&D (SWIR range)
- Hyperspectral imaging
- Semiconductor inspection
- High temperature thermography (300°C to 1200°C range or up to 2000°C)

Benefits & Features

- Spectrometer compatible
- Thermal imaging of hot objects
- High sensitivity for low-light conditions
- Extending SWIR imaging to the visible
- Cooled operation for low light-level imaging
- Flexible programming in an open architecture
- CameraLink and triggering for high speed imaging
- Extended coverage from SWIR into the visible range

Broad range of accessories available to simplify your research

Lens & filter options

Inputs

Outputs

Software

- Xeneth advanced
- Xeneth SDK
- Xeneth radiometric (optional)

Specifications

Array specifications	Xeva-1.7-320 Thermography
Array Type	InGaAs
Spectral band	Standard: 0.9 to 1.7 µm;
# Pixels	320 x 256
Pixel Pitch	30 µm
Array Cooling	TE1-cooled down to 263K / TE3-cooled down to 223K
Pixel operability	> 99%

Camera specifications	Xeva-1.7-320 Thermography
Lens (included)	
Focal length	16mm f/1.4
Optical interface	C-Mount, spectrograph fixation holes (Broad selection of lenses are available)
Imaging performance	
Frame rate	100 Hz
Integration type	Snapshot
Exposure time range	1 µs up to 100 seconds (TE3; Low gain)
Noise level: Low gain	6 AD counts on 14 bit
High gain	15 AD counts on 14 bit
S/N ratio: Low gain	68 dB
High gain	60 dB
A to D conversion resolution	12 bit
Interfaces	
Camera control	USB 2.0
Image acquisition	USB 2.0
Trigger	TTL levels
Graphical User Interface (GUI)	Xeneth Advanced
Power requirements	
Power consumption	< 4 Watt, cooler: 30 Watt max
Input voltage	12 V
Physical characteristics	
Camera cooling	Forced convection cooling
Ambient operating temperature	0 to 50 °C
Dimensions	90 W x 110 H x 110 L mm³
Weight camera head	App. 1.8 kg
Weight power supply	300 g

Product selector guide

Part number	Digital output Interface	Cooling	Frame Rate	ADC
XEN-000100	USB 2.0	TE1	100 Hz	12 bit
XEN-000101		TE3		

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Xenics
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