Álava Ingenieros
GRUPO ÁLAVA

Xenics
Infrared Solutions

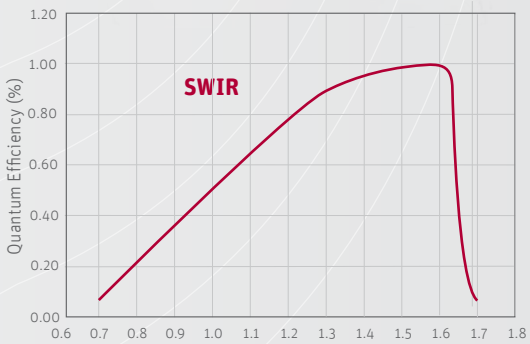
Imagine the invisible

Industrial

Lynx-1024-GigE

High resolution, high speed uncooled SWIR line-scan camera

Smallest SWIR GigE Vision line-scan camera with excellent sensitivity



Machine vision inspection using Lynx-1024-GigE provides you high resolution information about quality assurance measurements. The SWIR camera matches perfectly the absorption spectra of low-level photon emissions,is less sensitive to emissivity changes for thermal measurements and provides increased subsurface penetration depth images.

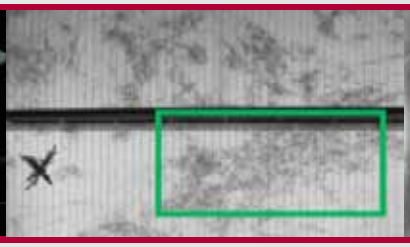
The Lynx-1024-GigE offers in many ways an affordable solution. The small form factor, high resolution and smallest pixel pitch of 12.5 µm allows more precision and optimization of compact systems with lower cost lenses

The Lynx-1024-GigE is also a flexible solution with an industry-standard GigE Vision and Power over Ethernet interface. Furthermore you can change integration times from 1 µs to 1 s.

You will reach optimal image quality choosing from various configurations in High Sensitivity mode (HS) or High Dynamic Range Mode (HDR) and multiple gain settings.

Designed for use in

OCT: cross-sections MEMS



Semiconductor photoluminescence

Web inspection pharmaceuticals

Thermal imaging of hot objects

Applications

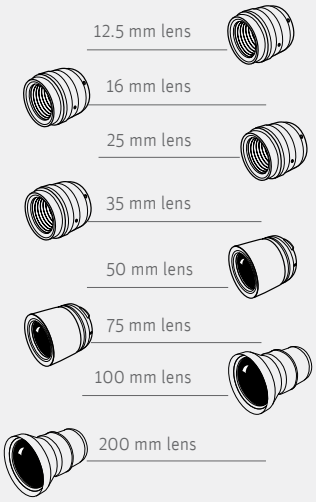
- Food inspection
- Non-destructive testing
- Industrial web inspection
- Semiconductor inspection
- High speed line scan imaging
- Optical Coherence Tomography (OCT)
- Non-contact thermal imaging of (hot) objects

Benefits & Features

- Made in Europe
- Smallest SWIR line-scan camera with smallest pixel pitch
- Full flexibility in integration time settings
- Standard GigE Vision and trigger functionality
- Compliant with any software supporting GenICam
- High resolution and high sensitivity for low-light conditions

Broad range of accessories available to optimize your system

Lens & filter options



Inputs

Software

- Xeneth advanced
- Xeneth SDK (optional)

Outputs

Specifications

Camera specifications	Lynx-1024-GigE
Lens	
Focal length	Broad selection of lenses available
Optical interface	C-mount with adjustable back focus Mounts easily to spectrometers Otional: U-Mount with adjustable back focus Optional: Filter holder
Imaging performance	
Line rate	Max 40 kHz
Pixel rate	50 MPixels/sec
Integration time	Full flexibility in settings from 1 µs to 1 s
A to D conversion resolution	14 bit
CDS	Correlated Double Sampling
Gain settings (16 settings)	Various settings from 30 fF (HS) till 2130 fF (HDR)
Pixel well depth (e-)	From 450 Ke$^-$ (HS) till 32 Me$^-$ (HDR) *
Gain (e-/ADU count)	From 8.2 e$^-$/cnt (HS) till 580 e$^-$/cnt (HDR) *
Dynamic range	From 280:1 (HS) till 2600:1 (HDR) *
Noise	From 1.5 x 10^3 e$^-$ (HS) to 12.2 x 10^3 e$^-$ (HDR) *
Onboard image processing	Configurable single NUC User adjustable fixed offset and gain control
Interfaces	
Digital output	14 bit GigE
Camera control	Gigabit Ethernet: GigE Vision or Xeneth API/SDK
Image acquisition	Integrate while read / integrate then read snapshot acquisition
Trigger	Trigger in or out; LVCMOS Modes: free running or user configurable line or frame trigger
External trigger jitter	40 ns
Operating mode	Stand-alone or PC-controlled
Power requirements	
Power consumption	+/- 4 W
Power supply	12 V
Physical characteristics	
Ambient operating temperature	-40°C to 70°C
Maximum storage temperature	-50°C to 85°C
Dimensions	49 W x 49 H x 62 L mm
Weight camera head	< 150 g (lens not included)

(*): Typical values, depending on gain setting
(HS): High Sensitivity mode
(HDR): High Dynamic Range mode

Array specifications	Xlin-1.7-1024
Array type	InGaAs
# Outputs	2 outputs
Spectral band	0.8 µm to 1.7 µm
# Pixels	1024 x 1
Pixel pitch	12.5 µm
Pixel height	12.5 µm
Dark current array	1.5 x 10^6 e$^-$/s @ room temperature
InGaAs array length	12.8 mm
Array cooling	Uncooled
Pixel operability	> 99%

Product selector guide

Part number	# Pixels	Pixel size (µm²)	Line rate (kHz)
XEN-000310	1024 x 1	12.5 x 12.5	40

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Xenics
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