

Imagine the invisible

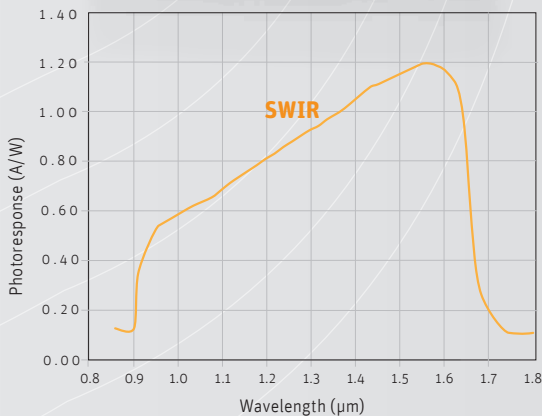
Scientific



Cheetah-640CL TE3

High resolution cooled InGaAs-camera

Cheetah-640CL TE3 for low light level imaging and spectroscopy

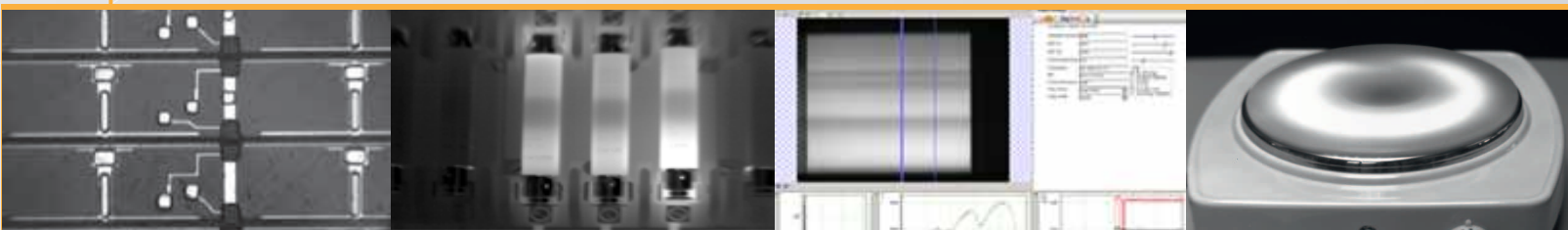


The Cheetah-640CL TE3 camera is a high resolution, compact infrared camera, equipped with a dedicated low noise InGaAs detector array working from 0.9 µm up to 1.7 µm.

The Cheetah-640CL TE3 is delivered with a software development kit which offers direct access to various camera settings and allows easy integration with your own CameraLink image grabbing system.

With its TE3 cooled sensor and water cooled camerahead, the Cheetah-640CL TE3 is a highly sensitive camera achieving ultra low dark current at long integration times. It offers you an excellent measurement tool to image low light levels in the SWIR range such as for semiconductor failure analysis or for luminescence spectroscopy applications.

Designed for use in



⌘ Semiconductor analysis

⌘ Reliability study

⌘ Research & Development

⌘ Failure detection

Applications

- Fluorescence
- R&D (SWIR range)
- Emission microscopy
- Semiconductor failure analysis
- Low light level imaging spectroscopy: raman, emission, photoluminescence, absorbance

Benefits & Features

- High resolution
- Low dark current
- Flexible GUI and SDK
- No need for LN2 cooling
- Spectrograph compatible
- High quantum efficiency (> 80 %)

Broad range of accessories available to simplify your research

▶ Lens & filter options



▶ Inputs



▶ Software



- Xenith advanced
- Xenith SDK

▶ Outputs

Specifications

Array Specifications	Cheetah-640CL TE3
Array type	InGaAs
Spectral band	0.9 to 1.7 μm
# Pixels	640 x 512
Pixel pitch	20 μm
Array cooling	TE3-cooled
Pixel operability	> 99%
Camera Specifications	Cheetah-640CL TE3
Lens (included)	
Focal length	25 mm f/1.4
Optical interface	C-Mount, spectrometer holes
Imaging performance	
Frame rate (full frame)	120 Hz
Integration type	Snapshot
Window of Interest	Minimum size 32 x 4 pixels
A to D conversion resolution	14 bit
Interfaces	
Camera control	CameraLink (LVDS voltage levels)
Image acquisition	Base CL (14 bit)
Trigger	3.3 V CMOS levels (trigger in & out)
Graphical User Interface (GUI)	Xenith Advanced
Power requirements	
Power consumption	Max. 20 W
Power supply	12 V
Physical characteristics	
Camera cooling	Water cooling
Ambient operating temperature	0 °C to 50 °C
Dimensions	140 W x 135 H x 90 L mm
Weight camera head	2 kg

Product selector guide

Part number	TE Cooling	Digital output interface	Frame rate (Hz)	ADC
XEN-000271	TE3	CameraLink	120	14 bit