

Imagine the invisible

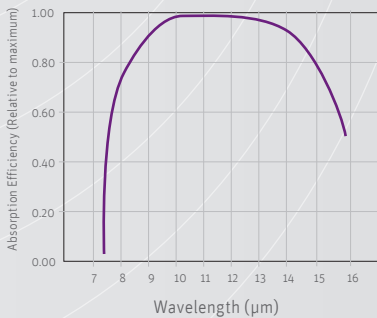
Modules & Components

XTM-640-CL

High resolution uncooled thermal OEM module



Ready-to-integrate thermal OEM module consuming ultra-low-power



Xenics' XTM-640-CL is an extremely compact and versatile thermal camera module with unique image quality and stability for a broad range of OEM applications. These applications include security, night vision, firefighting, airborne and land-based reconnaissance and surveillance.

The module comes with an industry-standard CameraLink interface for data transfer at full frame rate. In windowing mode the frame rate can even be further increased.

The 640 x 480 image resolution with small pixel pitch of 17 µm allows for longer Detection, Recognition and Identification (DRI) values in critical security applications.

We guarantee you a high operating temperature range and unparalleled uniform and crisp thermal images thanks to on-board image processing and full shutter control.

Designed for use in



Thermal security



Vision enhancement



Police surveillance



Border security

Key features

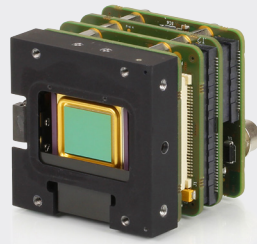
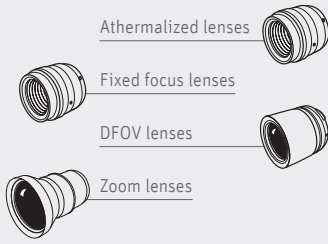
- Low power
- High resolution
- Easy connectivity
- Small size, 17 µm pixel pitch
- 50 Hz frame rate worldwide

OEM applications

- UAV / UGV
- Gimbal
- Night vision
- Thermal sights
- Border security
- Fire fighting
- Driver assistance
- Police surveillance
- Search & Rescue (SAR)
- Electro optical payloads

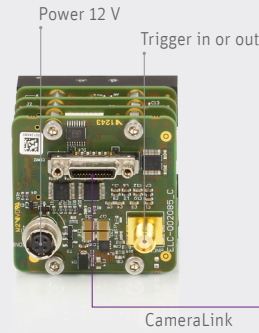
Ready-to-integrate

▶ Lens & filter options



▶ Discover our Lens Selector Guide
www.xenics.com/LSG

▶ Inputs



▶ Software



- Xeneth Basic
- Xeneth SDK (optional)
- Xeneth Advanced (optional)
- Xeneth LabVIEW SDK (optional)

▶ Outputs

Specifications

Module specifications	XTM-640-CL
Lens	
Optical interface	Fixation holes for multiple lens mount
Imaging performance	
Frame rate (full frame)	50 Hz
Window of Interest	Minimum size 160 x 120
Integration time	1 μ s - 80 μ s
Shutter	Full control by serial command
Temperature stabilization	No ThermoElectric Cooling required (TEC-less)
Integration type	Rolling shutter
On-board image processing	NUC (Non-Uniformity Correction) Auto-offset & Auto-gain (selectable region of interest) XIE (Xenics Image Enhancement) Histogram equalization
A to D conversion resolution	16 bit
Interfaces	
Digital output	CameraLink
Analog output	-
Module control	XSP protocol (RS-232)
Trigger	In or out (via SMA or CL-CC1)
Power requirements	
Power consumption	< 2 W
Power supply	12 V
Physical characteristics	
Shock	40 g, 11 ms according to MIL-STD810G
Vibration	5 g (20 Hz to 2000 Hz) according to MIL-STD883J
Ambient operating temperature	- 40 °C to 60 °C
Storage temperature	- 45 °C to 85 °C
Dimensions (W x H x L mm ³)	45 x 45 x 44.6
Weight module	84 g

Array specifications	XTM-640-CL
Array type	Uncooled microbolometer (a-Si)
Spectral band	8 to 14 μ m
# pixels	640 x 480
Pixel pitch	17 μ m
NETD	55 mK @ 30°C with F/1 lens
Array cooling	Uncooled
Pixel operability	> 99 %

Product selector guide

Part number	NETD (mK)	Frame rate (Hz)	Interface
XEN-000301	55	50	CameraLink
XEN-000448		9	

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