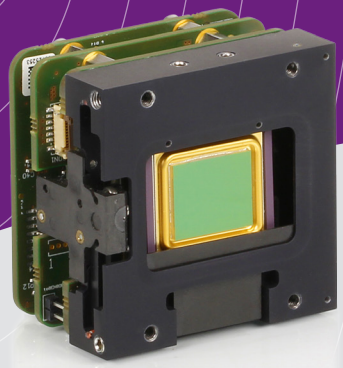
Xenics
Infrared Solutions

Imagine the invisible

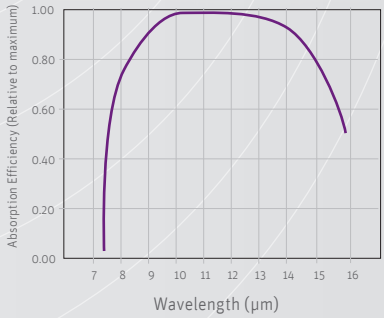
Modules & Components

XTM-640-16bitDV

High resolution uncooled thermal OEM module



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



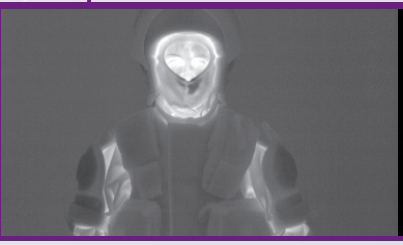
Xenics' XTM-640-16bitDV is an extremely compact and versatile thermal camera module with unique image quality and stability for a broad range of OEM applications. These applications include security, night vision, firefighting, airborne and land-based reconnaissance and surveillance.

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.

You can easily integrate our XTM-640-16bitDV into your system with the universal Samtec QTE connector, which gives you 16 bit parallel digital video data. This allows you immediate connection, data acquisition, command and control.

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.

Designed for use in



Thermal security

Vision enhancement

Police surveillance

Border security

Key features

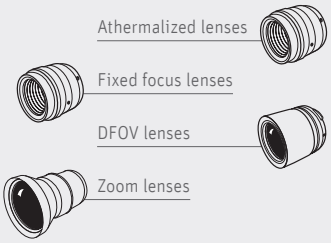
- Low power
- High resolution
- Easy connectivity
- Small size, 17 µm pixel pitch
- 50 Hz frame rate worldwide

OEM applications

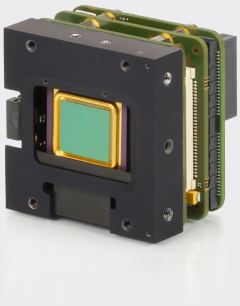
- UAV / UGV
- Gimbal
- Night vision
- Thermal sights
- Border security
- Fire fighting
- Driver assistance
- Police surveillance
- Search & Rescue (SAR)
- Electro optical payloads

Ready-to-integrate

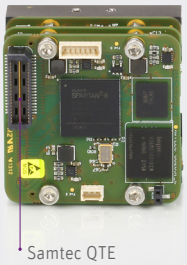
Lens & filter options



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



Inputs



Outputs

Specifications

Module specifications	XTM-640-16bitDV
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 µs - 80 µs
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	
Connector	Samtec QTE
Video output	16 bit digital video + LVAL/DVAL/FVAL signals
Analog output	-
Module control	XSP protocol
Trigger	In or out (configurable via Samtec)
Power requirements	
Power consumption	1.65 W
Power supply	3.3 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 mm³)	45 x 45 x 35.8
Weight module	75 g

Array specifications	XTM-640-16bitDV
Array type	Uncooled microbolometer (a-Si)
Spectral band	8 to 14 µm
# pixels	640 x 480
Pixel pitch	17 µm
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)	QTE Interface
XEN-000064	55	50	16bitDV
XEN-000445		9	

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Xenics
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ISO 9001:2015 certified