XTM⁺ series

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High resolution uncooled thermal OEM module

Made for applications with higher imaging requirements, the XTM⁺ OEM modules offers increased imaging quality and higher frame rates, all while retaining its low power consumption and compact form factor.
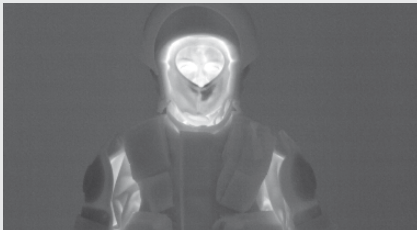
Thermal security

Vision enhancement

Police surveillance

Border security

Ready-to-integrate

The XTM⁺ series are compact uncooled OEM modules, ready to be integrated in the customer's application. Imaging capabilities have been further improved, meeting the requirements of even the most demanding applications.

Like the XTM, high operating temperature range and unparalleled uniform and crisp thermal images are guaranteed thanks to on-board image processing and full shutter control. Frame rates are increased with the XTM⁺, pushing the limits of high speed imaging.

A multitude of imaging interface options ensures you find one that suits your requirements. Integration and use of these infrared modules are easy - little or no operator training is required. The small pixel pitch of 17 µm allows for longer Detection, Recognition and Identification (DRI) values in critical security applications.

Benefits & Features

Made for easy integration

Compact, low weight and power consumption to overcome constraints in integration

Higher performance

640 x 480 pixel resolution is provided with increased frame rates of 60 Hz, as well as low 50 mK NETD detector noise.

Flexible interface options

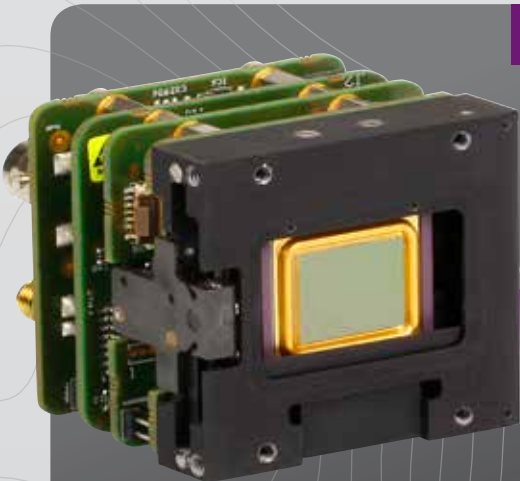A variety of interfaces are available to suit your needs

Windowing mode

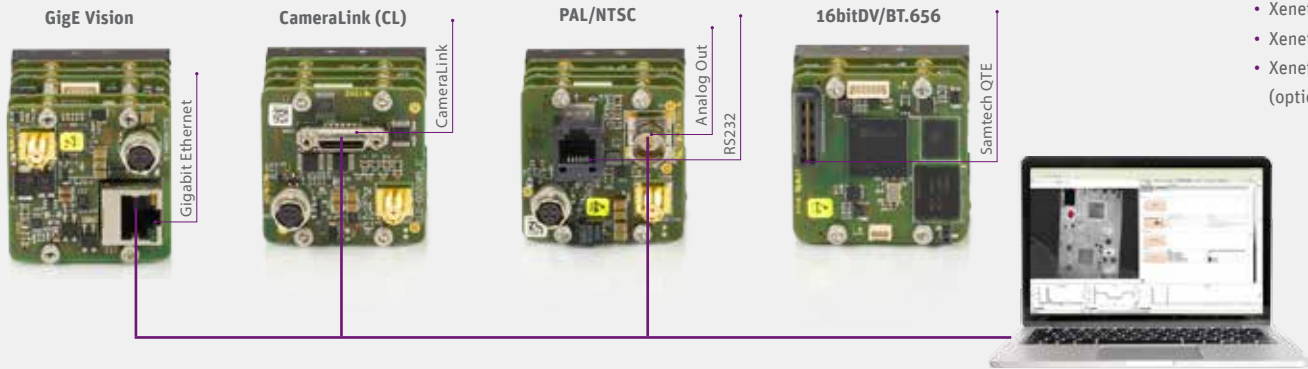Imaging in a reduced window of interest for increased frame rates

Advantages

- Low power consumption
- High resolution
- Easy connectivity
- Small size, light-weight

Designed for use in

- UAV / UGV
- Gimbals / Electro optical payloads
- Search & Rescue (SAR)
- Situational awareness

Connectivity & Interface

GigE Vision — Gigabit Ethernet

CameraLink (CL) — CameraLink

PAL/NTSC — Analog Out / RS232

16bitDV/BT.656 — Samtech QTE

▸ **Software**
- Xeneth
- Xeneth SDK (optional)
- Xeneth LabVIEW SDK (optional)

Camera Specifications	XTM⁺ 640 GigE	XTM⁺ 640 CL	XTM⁺ 640 PAL/NTSC	XTM⁺ 640 16bit DV	XTM⁺ 640 BT.656
Mechanical specifications					
Dimensions - excluding lens (width x height x length) [mm]	45 x 45 x 63	45 x 45 x 45	45 x 45 x 47	45 x 45 x 36	45 x 45 x 36
Weight - excluding lens [gr]	125	84	99	72	72
Optical interface (optional)	M42 or M34 x 0.75				
Connector GigE	RJ-45	NA	NA	NA	
Connector CameraLink	NA	Standard SDR	NA		
Connector power	Hirose HR10-7R-SA(73)			NA	
Connector trigger	SMA				
Connector analog	NA	NA	BNC		
Connector RS232	NA	NA	RJ-12		
Connector general I/O	NA	NA	NA	QTE-020-02-L-D-A Samtec	
Environmental & power specifications					
Ambient operating temperature range [°C]	From -40 to +60				
Storage temperature [°C]	From -45 to +85				
Power consumption [W]	4.5	2	2	1.65	
Power supply voltage	DC 12 V			DC 3.3 V	
Electro-optical specifications					
Image format [pixels]	640x480				
Pixel pitch [µm]	17				
Detector type	a-Si microbolometer				
Integration type	Rolling shutter				
Active area and diagonal [mm]	10.88 x 8.16 (13.6 diagonal)				
Detector NETD (Noise Equivalent Temperature Difference) [mK]	<50 (at 30Hz, 300K, F/1)				
Spectral range [µm]	8 - 14				
Pixel operability	>99.5%				
Max frame rate (full frame) [Hz]	60 (or 9)	60 (or 9)	PAL: 25 (or 9) NTSC: 30 (or 9)	60 (or 9)	60 (or 9)
Integration time range [µs]	1-80				
Region of interest	Yes				
Min region size [pixels]	160x120				
Analog-to-Digital (ADC) [bits]	16				
Command and control	GigE Vision	CameraLink	RS232	QTE Samtec (Serial LVCMOS)	
Digital output format	16 bit GigE Vision	16 bit base CameraLink	NA	16 bit Digital Video	BT.656
Trigger	in or out via SMA (configurable, not for 9 Hz)	in or out via SMA or CL-CC1 (configurable, not for 9 Hz)	in or out via SMA (configurable, not for 9 Hz)	in or out via QTE Samtec (configurable, not for 9 Hz)	

Broad selection of lenses available

We offer various long-wave infrared lenses that are compatible with the XTM+ series. Optical interfaces are optional.

Contact us or visit the product page for more info.
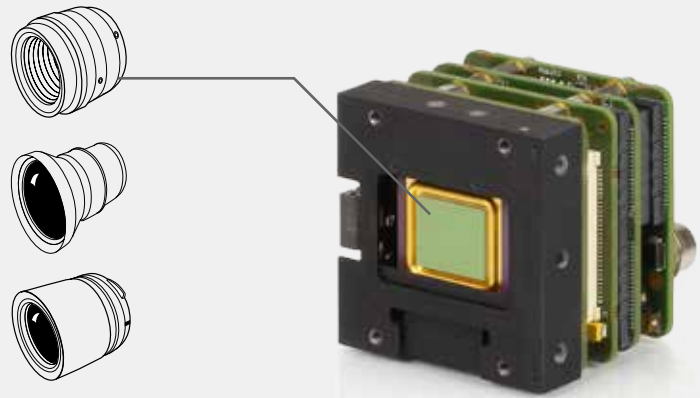
Product selector guide

Product	Part number	Detector NETD (mK)	Max frame rate (full frame)	Interface
XTM+ 640 GigE	XEN-000637		60 Hz	GigE Vision
XTM+ 640 GigE 9Hz	XEN-000642		9 Hz	
XTM+ 640 CL	XEN-000638		60 Hz	CameraLink
XTM+ 640 CL 9Hz	XEN-000643		9 Hz	
XTM+ 640 PAL	XEN-000634		25 Hz	PAL
XTM+ 640 PAL 9Hz	XEN-000639	< 50 (at 30Hz, 300K, F/1)	9 Hz	
XTM+ 640 NTSC	XEN-000648		30 Hz	NTSC
XTM+ 640 NTSC 9Hz	XEN-000649		9 Hz	
XTM+ 640 16bit DV	XEN-000635		60 Hz	16bitDV (QTE)
XTM+ 640 16bit DV 9Hz	XEN-000640		9 Hz	
XTM+ 640 BT.656	XEN-000636		60 Hz	BT.656 (QTE)
XTM+ 640 BT.656 9Hz	XEN-000641		9 Hz	

More information

Further information available at our product page:

- Access to technical documents, white papers;
- Information on lens compatibility;
- Contact form for pricing and general inquiries

Xenics
Infrared Solutions

ISO 9001:2015 certified

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