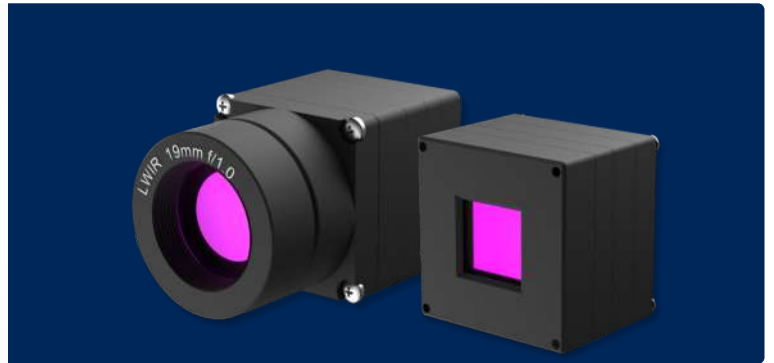




Thermal CORE - 640

Long Wavelength
Ultra Compact Infrared
Uncooled Thermal Core Module



We present the breakthrough long-wave infrared (LWIR) module, the Thermal Core 640, which sets a new benchmark for performance & reliability with low size and weight, while being completely shutterless. With the thermal sensitivity of ≥ 50 mK and an automated gain control (AGC) filter, this cutting-edge technology, which is proudly built in India, ensures good picture contrast and sharpness in all situations.

The Thermal Core 640 can cement its place as the go-to thermal camera module for defence, industrial, and commercial integrators with an optimised $12\ \mu\text{m}$ 640×480 focal plane array (FPA) with easy-to-access interface options.

Typical Applications



Defence EO Systems



Airborne Systems

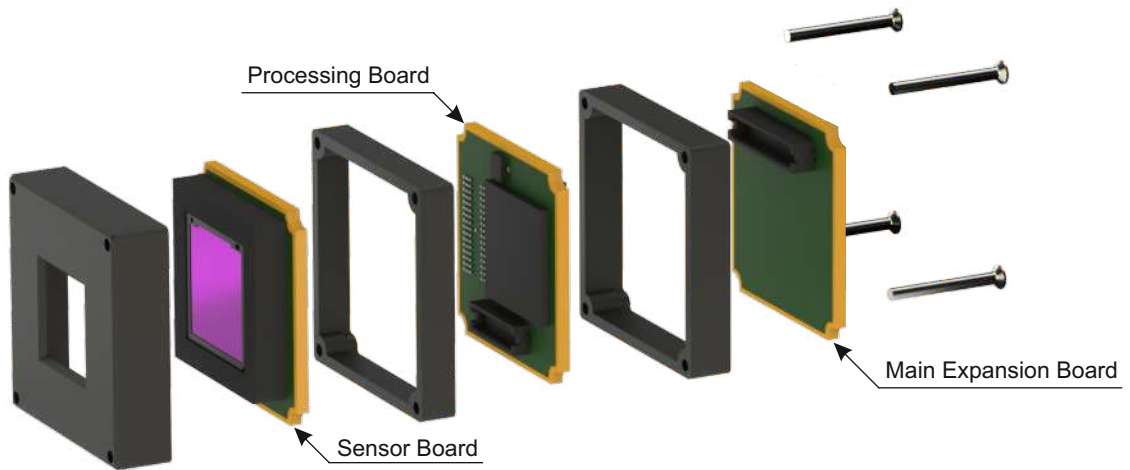


Driving Vision Enhancement



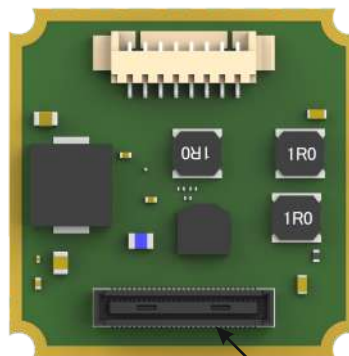
Security & Surveillance

EXPLODED VIEW



EXPANSION DETAILS

Main Expansion Board



- CMOS 8-Bit Parallel or BT.656,
- UART for Control Command Interface
- Power Input 5 VDC

TECHNICAL DATA

Detector

Detector type	Amorphous Silicon Microbolometer
Resolution	640 x 480
Pixel pitch	12 μm
NETD	< 50 mk
Spectral range	8 -14 μm
Refresh rate	50 Hz

Video Processing

AGC	Yes
Bad pixel correction	Manual list based
Offset correction	Fully shutterless
Color Palette	4 Palettes

Interfaces

Video output	Digital [BT.656, CMOS 8-Bit Parallel]
Communication interface	UART

Physical

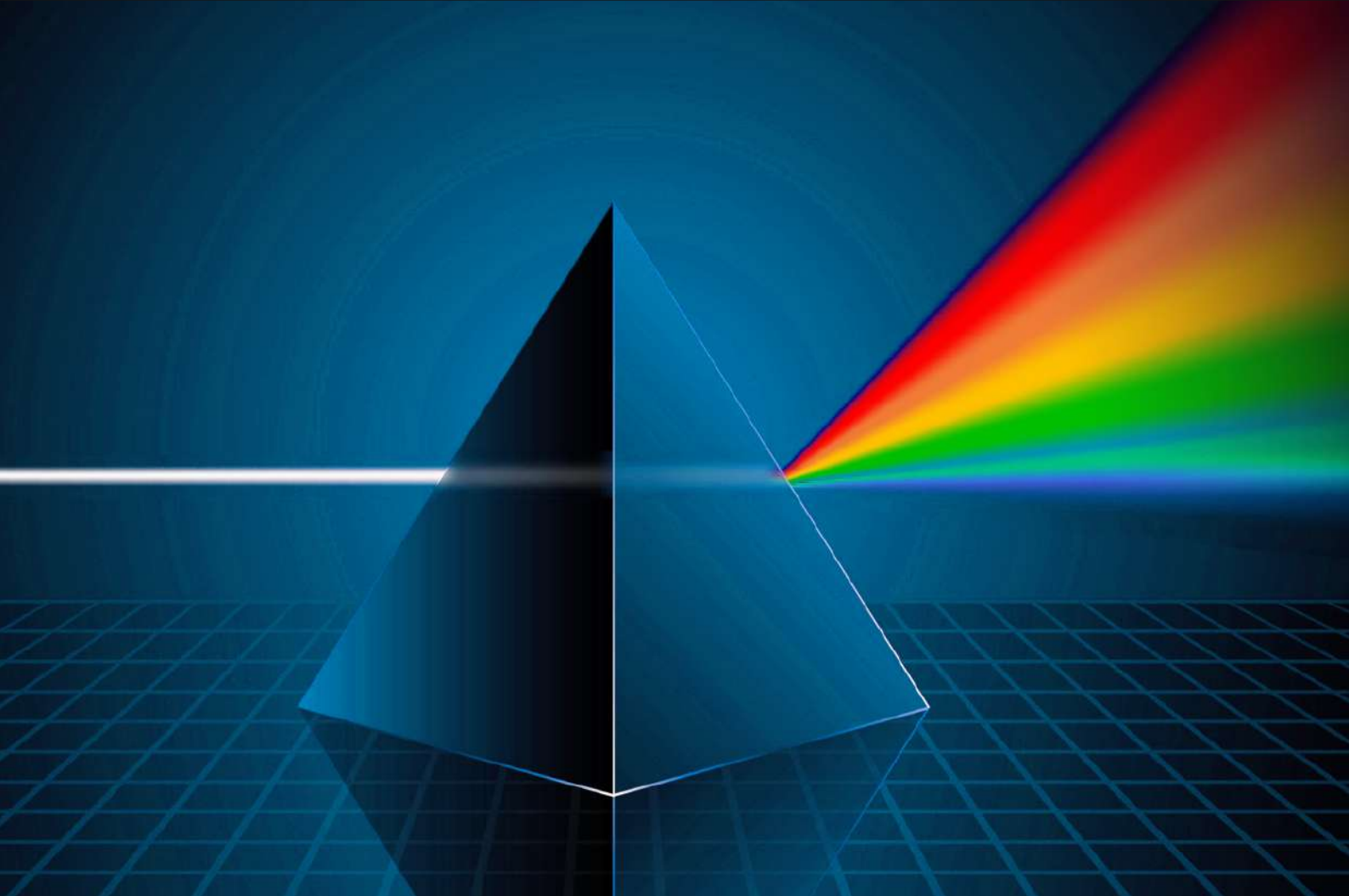
Size	30 mm x 30 mm x 26 mm (Without Lens)
Weight	~ 40 g (without Lens)
Power supply	5 VDC
Mounting holes	4 x M2 (front) (without Lens) 2 x M3 (4 side faces) (with Lens)

Operational

Operating Temperature	-40°C to +60°C
Storage Temperature	-50°C to +70°C

Optics

Lens Options	Available
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for any information,
visit www.pyrosens.com

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