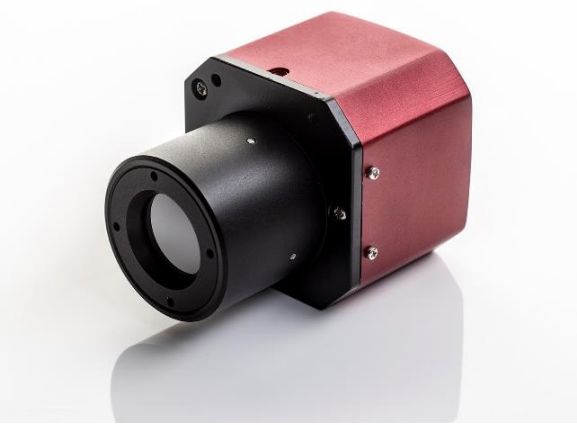


Product datasheet

VGA resolution Thermal Cores

Model: IRI-6000 Series

A range of high resolution thermal cameras offering outstanding image performance for night vision and surveillance applications.



Key Features

- Uncooled Micro bolometer
- 640 x 480 resolution
- High sensitivity
- Digital zoom with pan and tilt
- RS232 and RS485 control protocols
- Multiple image response schemes and colour palettes
- Standard or Compact case
- Manual control option
- Choice of screw fit lenses
- Non ITAR

Description

The IRI-6000 series offers outstanding imaging performance for night vision and surveillance applications. Featuring an uncooled high resolution 640x480 sensor, the cameras combine performance with flexibility and minimal cost of ownership. Available with a standard or compact enclosure and a screw fit lens, the module is designed to appeal to OEMs and systems integrators alike.

Based on an advanced Silicon Microbolometer the imager's 640x480 resolution puts it at the top end of its class. This allows fine images to be produced and maximises the detection capability of a small target at long range.

Flexible controls through RS232 or RS485 allow the view to be tailored to suit the application including colour palettes, polarity, digital zoom, pan and tilt. Picture response schemes include Automatic Level/Span (gain/contrast) and Advanced Histogram to provide a consistent background for applications using Video Content Analysis. Published protocols allow OEMs to integrate the camera commands with their control systems.

For specialised applications, manual controls are available including level/span, and shutter. The IRI-6000 series is designed for ease of physical integration; the standard case module features a small footprint and industry standard connectors. The compact version offers OEMs a shorter case and miniature connectors for applications where space is at a premium.

Technical Summary – IRI-6000 series

Detector	Uncooled Silicon Microbolometer
Number of pixels	640 x 480 pixels
Image refresh rate	8.3Hz PAL, 7.5Hz NTSC, 25Hz* PAL, 30Hz* NTSC
Spectral response	8µm to 14µm
Thermal sensitivity – model dependant	
- standard	70mK @20°C ambient and 30°C scene temperature
- high	50mK @20°C ambient and 30°C scene temperature
option High sensitivity	
Video output	Analogue 1V p-p composite video PAL or NTSC
Controls	
Control interface	RS 485 - Pelco D, or RS232 – Irisys
Colour palette	18 palettes including: Greyscale black hot, Greyscale white hot, Ironbow, Rainbow, Isotherm, Hot metal, Red-black, Green-black, High contrast and Blue-black
Gain and offset	Auto or manual
Shutter	Auto or manual, manual trigger
Digital zoom	Electronic zoom to any fixed magnification. Smooth continuous zoom to any magnification
Pan and tilt	Electronic pan and tilt while zoomed
Mechanical	
Housing	Aluminium
Dimensions	(L x W x H) excluding connectors and lens Standard case - 52mm x 53mm x 53mm Compact case – 42mm x 53mm x 53mm
Weight	Standard case – 160g Compact case – 150g
Mounting	2 x M4 screws (base) 2 x M3 screws (front)
Electrical connections	
Standard case	Video – BNC Power/data – pluggable terminal strip
Compact case	Video/power – miniature multi-pole socket Data – miniature multi-pole socket
Power supply requirements	Supply voltage: 5 – 14VDC Typical supply current 200mA @ 12VDC
Environmental	
Operating temperature	-15°C to +60°C
Storage temperature	-20°C to +70°C
Humidity	10% - 90% non-condensing
CE Mark	Standard Case models only
Vibration	MIL-PRF-28800F class 2 sec 4.5.5.3.1
Shock	MIL-PRF-28800F class 2 sec 4.5.5.4.1
IP rating	IP42
Lenses	
Lens options available	18mm f1.0, FOV 35.0° x 26.3° 25mm f1.0, FOV 25.0° x 19.0° 35mm f1.2, FOV 17.6° x 13.2°

	45mm f1.0, FOV 13.8° x 10.4° 50mm f1.2, FOV 12.4° x 9.3° 100mm f1.6, FOV 6.2° x 4.7°
Weight	18mm lens – 86g 25mm lens – 160g 35mm lens – 108g 45mm lens – 165g 50mm lens – 228g 100mm lens – 461g
Shipping data	
Shipping weight	Camera and lens weight + 300g
Shipping dimensions	(L x W x D) 33.5mm x 19mm x 12mm

Note: Data sheet may change without notice.

*Subject to export control