

## IRI 5300

### THERMAL IMAGING CAMERA CORE

The IRI5300 offers outstanding imaging performance for night vision and surveillance applications. Featuring an uncooled high resolution 384x288 sensor, the camera combines the traditional Irisys features of performance, flexibility and minimal cost of ownership.

With two option of compact enclosure and screw fit lenses, the module is designed to appeal to OEMs and systems integrators alike.

#### Applications:

- Security Surveillance
- Night Vision for CCTV Systems
- Marine
- Security Vehicles
- Handheld Thermal Imagers

#### Product Description

Based on an advanced Silicon Microbolometer the imager's 384x288 resolution puts it at the top end of its class with 44% higher pixel count than many of its competitors. This allows fine pictures to be produced and maximises the detection capability of a small target at range.

Flexible controls through RS232 or RS485 allow the view to be tailored so suit the application including colour palettes, polarity and digital zoom, pan and tilt. Published protocols allow OEMs to integrate the camera commands with their control systems.

Picture response schemes include Automatic Level/Span (gain/contrast) and Advanced Histogram to provide a consistent background for applications using Video Content Analysis.

For specialised applications, manual controls are available including level/span, and shutter.

The IRI5300 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 a premium.



*“A high performance thermal imaging camera core for surveillance applications”*



**IRI 5300****SPECIFICATION****Performance**

Detector:	384x288 pixels Silicon Micro bolometer
Image refresh rate:	8.3Hz PAL, 7.5Hz NTSC 25Hz PAL*, 30Hz NTSC*
Spectral Response:	8µm to 14µm
Thermal Sensitivity:	100mK (0.1°C) @ 20°C ambient and 30°C scene temperature
Lenses: (Interchangeable)	15mm f1.0, FOV 35° x 26° 45mm f1.0, FOV 12° x 9°, Athermalized Others - contact Irisys
Focus:	Fixed, preset

**Video Output**

Analogue	1V p-p composite video PAL: 625 lines 50 fields per second 2:1 interlace NTSC 525 lines, 30 fields per second 2:1 interlace
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**Control Interface**

RS232	9,600 bits per second
or RS 485	115,200 bits per second

**Controls**

Colour Palette	Greyscale black hot Greyscale white hot Ironbow Red scale
Auto/manual	Auto or Manual level/span Level +/- Span +/-
Shutter	Auto or Manual Shutter manual trigger
Zoom	Electronic Zoom x2, x4
Pan & Tilt	Electronic Pan & Tilt while zoomed

**Environmental**

Temperature	
Operating range:	-15°C to +50°C
Storage range:	-20°C to +70°C
Humidity:	10% - 90% non-condensing
CE Mark (Europe)	
Vibration:	MIL-PRF-28800F Class 2 section 4.5.5.3.1
Shock:	MIL-PRF-28800F Class 2 section 4.5.5.4.1
IP Rating:	IP42

**Mechanical:**

Housing:	Aluminium
Dimensions (LxWxH): Excluding connectors & lens	Standard Case 52mm x 53mm x 53mm Compact Case 42mm x 53mm x 53mm
Weight:	200g (including 35° lens)
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:	12VDC +/- 1v
Typical supply current	<300mA

**Ordering Information**

Lens	<9Hz scan rate		25/30Hz scan rate*	
	Standard Case	PAL	NTSC	PAL
15mm 35x26 deg	IRI5331-01	IRI5331-02	IRI5339-01	IRI5339-02
45mm 12x9 deg	IRI5371-01	IRI5371-02	IRI5379-01	IRI5379-02
Compact Case	PAL	NTSC	PAL	NTSC
15mm 35x26 deg	IRI5331-03	IRI 5331-04	IRI5339-03	IRI 5339-04
45mm 12x9 deg	IRI5371-03	IRI 5371-04	IRI5379-03	IRI 5379-04

\*subject to export controls

**Optional Accessories**

IWI 5418	Configuration kit consisting: Set-up software CD, USB Serial set-up module
IWI 4411	100-240VAC to 12VDC Power Supply
IWI 5319	1/4" BSW tripod adaptor
IWI 5520	Germanium window, hard coated for camera housing for 15mm lens
IWI 5521	Germanium window, hard coated for camera housing for 45mm lens

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