

# Affordable and Flexible Solutions for Real-Time Thermal Analysis

The A325sc is designed from the ground up to deliver the accurate thermographic imaging and repeatable temperature measurement necessary in research and science applications. Each thermal image is built from over 76,000 individual picture elements that are sampled by the camera's on-board electronics and firmware. A325sc features include:

## **Uncooled Microbolometer Detector -**

Maintenance-free and provides excellent longwave imaging performance.

**Optics and Focus –** Standard built-in 25° lens with optional 6°, 15°, 45°, and 90° lenses available to achieve other fields of view; manual and auto focus standard.

**Microscopy and Close-up Measurement –** Optional 100 μm, 50 μm, and 25 μm optics and stands are available for small target imaging and measurement.

Ideal Plug-and-Play System – Integrates with GigE Vision and GenlCam protocols. The camera can be fully controlled from the PC, allowing real time, full frame video collection.

**Versatile/Compact –** Rugged and lightweight with straightforward 3-sided mounting feature that permits quick installation and easy movement for new application requirements.

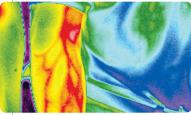
**Fast Data Transfer –** RJ-45 Gigabit Ethernet connection supplies a 14-bit 320 × 240 images at rates as high as 60 Hz.

**Tailored to Your Application –** FLIR Systems offers a complete line of accessories including optics, enclosures, data systems, and software tools to suit the most demanding applications.

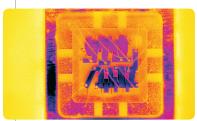
## Included Recording & Analysis Software -

Remotely control the A325sc, record thermal snapshots and movies, measure temperature from over 76,000 spots, create temperature verses time plots, and more with the included FLIR ResearchIR software.

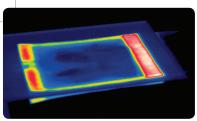




Vascular study



Electronic component



Package seal



## Imaging Specifications

Detector	A325sc
Detector Type	Uncooled Microbolometer
Spectral Range	7.5 – 13.0 µm
Resolution	320 × 240
Detector Pitch	25 μm
NETD	<50 mK
Electronics / Imaging	
Time Constant	<12 ms
Frame Rate	60 Hz
Dynamic Range	14-bit
Digital Data Streaming	Gigabit Ethernet (60 Hz)
Command & Control	Gigabit Ethernet
Measurement	
Standard Temperature Range	-20°C to 120°C (-4°F to 248°F ) 0°C to 350°C (32°F to 662°F )
Optional Temperature Range	Up to 2,000°C (3,632°F)
Accuracy	±2°C or ±2% of Reading
Optics	
Camera f/#	f/1.3
Integrated Lens	18 mm (25°)
Available Lenses	76 mm (6°), 30 mm (15°), 10 mm (45°), 4 mm (90°)
Close-up Lenses / Microscopes	Close-up 25 µm, 50 µm, 100 µm
Focus	Automatic or Manual (Motorized)
Image Presentation	
Digital Data	Via PC Using ResearchIR Software
General	
Operating Temperature Range	-15°C to 50°C (5°F to 122°F )
Storage Temperature Range	-40°C to 70°C (-40°F to 158°F )
Encapsulation	IP 40 (IEC 60529)
Bump / Vibration	25 g (IEC 60068-2-29) / 2 g (IEC 60068-2-6)
Power	12/24 VDC, 24 W Absolute Max.
Weight w/Lens	0.7 kg (1.54 lb)
0: (1 )// 11) (1	170 × 70 × 70 mm (6.7 × 2.8 × 2.8 in)
Size (L $\times$ W $\times$ H ) w/Lens	170 x 70 x 70 11111 (0.7 x 2.0 x 2.0 111)

## Back Panel



- ① Power Connector, Screw Terminal 2-pole: 10–30 VDC, <10 W.
- ② Gigabit Ethernet Port, 1000 MB, RJ-45 Connector: Control and image streaming.
- (3) Digital I/O Connector, Screw Terminal 6-pole: Digital Out: 2 outputs, opto-isolated, 10–30 V supply, 100 mA. Digital In: 2 inputs, opto-isolated, 10–30 V.

## SC300 Packages

A325sc ResearchIR Recording & Analysis Package: A325sc, Integrated 18 mm (25°) Lens, Standard Temperature Calibration, ResearchIR Software

A325sc ResearchIR Max Recording & Analysis Package: A325sc, Integrated 18 mm (25°) Lens, Standard Temperature Calibration, ResearchIR Max Software

\*Ask your FLIR representative about additional packages



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