

## FLIR SC300 Series

### Affordable and Flexible Solutions for Real-Time Thermal Analysis

The SC300 Series 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. SC300 Series 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.*

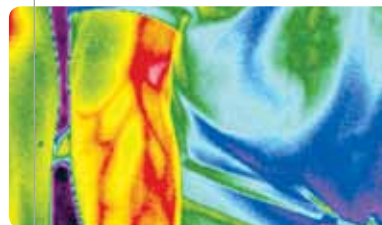
**Microscopy and Close-up Measurement –** *Optional 100 µm, 50 µm, and 25 µm optics and stands are available for small target imaging and measurement.*

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

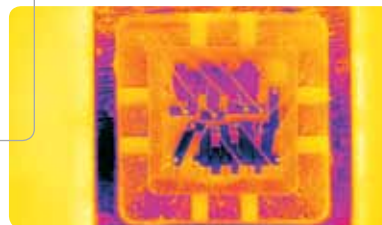
**Versatile/Compact –** *Rugged and lightweight with straightforward 3-sided mounting feature that permits quick installation and easy movement for new application requirements.*

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

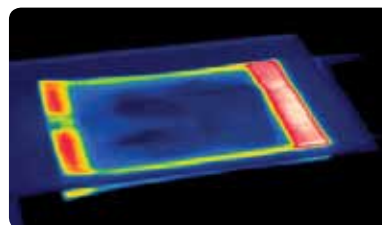
**Tailored to Your Application –** *FLIR Systems offers a complete line of accessories including optics, enclosures, data systems, and software tools to suit the most demanding applications.*



Vascular study



Electronic component



Package seal

## Imaging Specifications

Detector	SC305	SC325
Detector Type	Uncooled Microbolometer	
Spectral Range	7.5 – 13.0 $\mu\text{m}$	
Resolution	320 x 240	
Detector Pitch	25 $\mu\text{m}$	
NETD	<50 mK	
<b>Electronics / Imaging</b>		
Time Constant	<12 ms	
Frame Rate	9 Hz	60 Hz
Dynamic Range	14-bit	
Digital Data Streaming	Gigabit Ethernet (9 Hz)	Gigabit Ethernet (60 Hz)
Command & Control	Gigabit Ethernet	
<b>Measurement</b>		
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	$\pm 2^\circ\text{C}$ or $\pm 2\%$ of Reading	
<b>Optics</b>		
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 $\mu\text{m}$ , 50 $\mu\text{m}$ , 100 $\mu\text{m}$	
Focus	Automatic or Manual (Motorized)	
<b>Image Presentation</b>		
Digital Data	Via PC Using ExaminIR Software	
<b>General</b>		
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)	
Size (L x W x H) w/Lens	170 x 70 x 70 mm (6.7 x 2.8 x 2.8 in)	
Mounting	1/4"-20 (on three sides), 2 x M4 (on three sides)	

## 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

SC305 ExaminIR Recording & Analysis Package: SC305, Integrated 18 mm (25°) Lens, Standard Temperature Calibration, ExaminIR Software

SC305 ExaminIR Max Recording & Analysis Package: SC305, Integrated 18 mm (25°) Lens, Standard Temperature Calibration, ExaminIR Max Software

SC325 ExaminIR Recording & Analysis Package: SC325, Integrated 18 mm (25°) Lens, Standard Temperature Calibration, ExaminIR Software

SC325 ExaminIR Max Recording & Analysis Package: SC325, Integrated 18 mm (25°) Lens, Standard Temperature Calibration, ExaminIR Max Software

\*Ask your FLIR representative about additional packages



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