

FLIR T450sc

Compact Infrared Cameras for Research and Science Applications

Portable, ergonomic, and easy-to-use, FLIR's T450sc infrared camera provides excellent infrared image quality at an affordable cost and are packed with innovative features that make them perfect choices for your research and scientific needs. The T450sc camera offers:

Rich Feature Set – Infrared image resolution of 320 × 240 along with auto or manual focus options, up to 8x continuous digital zoom, and optional interchangeable infrared lenses allow you to get the information your project demands.

Integrated Visual Camera – Capture visible-light images at the same time you capture your thermal image with a built-in 3.1 megapixel digital camera that includes a target illuminator for low light situations.

Auto Hot/Cold Spot & Audible/Visual Alarms – Detect high, low, and interval temperatures on the thermal image quickly and efficiently using FLIR's advanced in-camera algorithms. Create custom temperature triggers to sound audible or show visible alarms for desired targets.

On-Camera Radiometric Recording – Real-time temperature calibrated movie recording at 30Hz to SD card that can be replayed on the camera or exported to ResearchIR 4.0 for playback, analysis and data sharing.

On-Camera Measurement Tools – On-screen emissivity tables, up to 5 temperature measurement spots, and Delta T functionality mean you can quickly acquire and easily compare temperature data.

MSX® Enhancement and Picture-in-Picture – Merge or overlay visual and infrared images to make identification and interpretation of infrared images easy and intuitive.

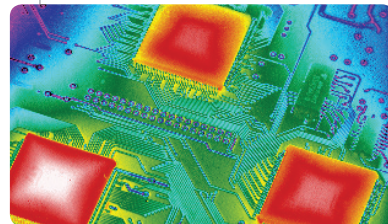
Built-in Annotation – Save text, markers, sketches, and record up to 60 seconds of voice comments; reference data is automatically associated with the visual and thermal JPEG images.

Ergonomic Design – 3.5" LCD touchscreen brings new easy-to-navigate interface and user comfort to a new level. Optics head and display screen are independently rotatable for optimum viewing.

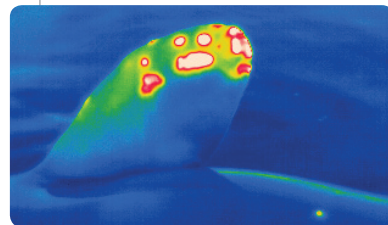
Auto Orientation – Keeps onscreen measurement data upright for easier reading in vertical or horizontal framing.

Maximum Connectivity – Store thousands of images to a standard removable SD Memory Card or output through standard video and USB outputs. Create visual and infrared non-radiometric MPEG-4 video files.

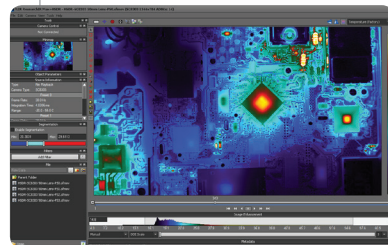
Included ResearchIR Data Acquisition and Analysis Software – Specifically developed for use in research and scientific environments, FLIR ResearchIR allows T450sc users to remotely control their camera, record movies & snapshots, and conduct detailed thermal analysis in "live" or "playback" mode.



Microchip



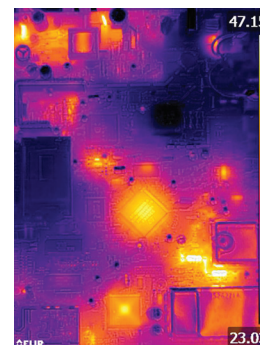
Whale fin



ResearchIR Data Acquisition and Analysis Software

Imaging Specifications

Detector	T450sc
Detector Type	Uncooled Microbolometer
Spectral Range	7.5 – 13.0 μm
Resolution	320 x 240
Detector Pitch	25 μm
NETD	<30 mK
Electronics / Imaging	
Time Constant	<12 ms
Frame Rate	30 Hz
Dynamic Range	14-bit
Digital Data Streaming	Real-time Radiometric = USB to PC Real-time Non-radiometric = MPEG via USB to PC
On-Camera Radiometric Recording	Real-time Temperature Calibrated Movie Recording at 30Hz to SD card
Analog Video	Composite Video / RCA connector
Command & Control	USB, WiFi
Measurement	
Standard Temperature Range	-40°C to 1500°C (-40°F to 2732°F)
Accuracy	$\pm 1^\circ\text{C}$ or $\pm 1\%$ (limited range)
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	
On-Camera Display	Touch Screen/3.5 in LCD Display (320 x 240)
Auto-Orientation	Keeps Onscreen Temperature Data Upright in Portrait or Landscape
Automatic Gain Control	Manual, Linear, Histogram, DDE
Image Analysis	Spot Meters, Areas, Auto Hot / Cold Detection, Difference Temp, Isotherms, Alarms
Image Annotations	60 Sec Voice, Text, 4 x Markers, Sketch
Zoom	8x Digital Continuous
Visible Image	3.1 Megapixel from Integrated Visible Camera
MSX® Enhancement/ Picture in Picture	Adds Visible Detail to Thermal/ P-i-P Overlays Thermal on Visible Image
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 54 (IEC 60529)
Bump / Vibration	25 g (IEC 60068-2-29) / 2 g (IEC 60068-2-6)
Power	AC Adapter 90-260 VAC, 50/60 Hz or 12 V from a Vehicle
Battery System	Li Ion, 4 Hours Operating Time
Weight w/ Battery	0.88 kg (1.94 lb)
Size (L x W x H)	106 x 201 x 125 mm (4.2 x 7.9 x 4.9 in)
Mounting	¼"-20



Auto-Orientation



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