FLIR T450sc

Compact, Portable Thermal Imaging Camera

The FLIR T450sc is a thermal imaging camera with a rotating optical block and touch screen interface. This handheld camera is perfect for bench-top testing in the lab or dynamic testing in the field. The tiltable IR unit gives you great flexibility and allows you to conduct your experiments fast and in a comfortable position.

IMAGE QUALITY AND THERMAL SENSITIVITY

The T450sc is equipped with an uncooled Vanadium Oxide (VOx) microbolometer detector that produces thermal images of 320 x 240 pixels. It generates crisp and clear detailed images that are easy to interpret, resulting in reliable imaging with high accuracy. The T450sc is also equipped with a visual camera.

TOUCH SCREEN

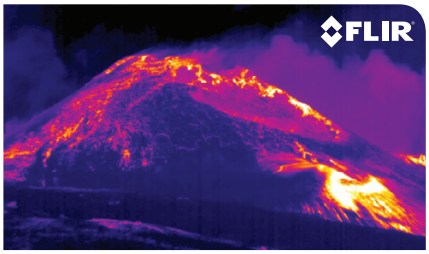
The high quality LCD touch screen presents sharp, bright images, bringing interactivity and user comfort to a new level. These features combined with the large back-lit buttons and joystick make the camera very easy to use.

RADIOMETRIC RECORDING

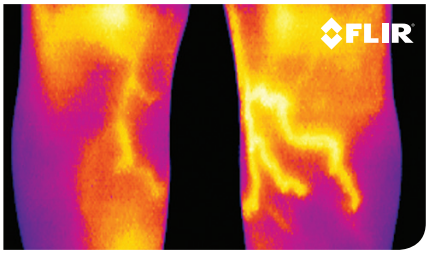
The T450sc allows for full dynamic video streaming to a PC using USB or to mobile devices using Wi-Fi. It can also record visual and thermal non-radiometric MPEG-4 video files. The T450sc can record radiometric IR sequences in real-time directly on the camera to SD card storage. These sequences include all temperature data and can be post analyzed on the camera or PC.

RICH FEATURE SET

The camera comes with features such as Multi Spectral Dynamic Imaging (MSX®), UltraMax™ image enhancement, auto-image rotation, image sketch, and autofocus. It is equipped with Auto Hot/Cold Spot and Audible/Visual Alarms. On-screen emissivity tables, up to 5 temperature measurement spots, and Delta T functionality mean you can quickly acquire and easily compare temperature data.



Thermal surveillance of volcanos



Vein cartography

SOFTWARE

The FLIR T450sc camera works seamlessly with FLIR ResearchIR Max software, enabling intuitive viewing, recording, and advanced processing of thermal data.

MATHWORKS® MATLAB

Control and capture data directly into MathWorks® Matlab software for advanced image analysis and processing.

KEY FEATURES

- Thermal and visual camera
- VOx uncooled microbolometer: 320 x 240 pixels
- Multi Spectral Dynamic Imaging (MSX®)
- UltraMax™ for up to 640 x 480 pixel thermal resolution
- Software included

MathWorks

Specifications

System Overview	T450sc
Detector Type	Uncooled Microbolometer
Spectral Range	7.5 – 13.0 µm
Resolution	320 × 240
Detector Pitch	25 µm
NETD	<30 mK
Electronics / Imaging	
Time Constant	<12 ms
Frame Rate	60 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 30 Hz to SD card
Analog Video	Composite Video / RCA Connector
Command & Control	USB, WiFi
Measurement	
Object Temperature Range	-20°C to +120°C (-4°F to +248°F) 0°C to +650°C (+32°F to +1202°F)
Accuracy	±1°C or ±1% (Limited Range) ±2°C or 2%, Whichever is Greater, at 25°C Nominal
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 × 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, Line Profile
Image Annotations	60 Sec Voice, Text, 4 x Markers, Sketch
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
UltraMax™ Image Enhancement	Increases Number of Pixels up to 4x Via 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 54 (IEC 60529)
Bump / Vibration	25 g (IEC 60068-2-29) / 2 g (IEC 60068-2-6)
External 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	0.855 kg (1.88 lb)
Size (L × W × H)	106 × 201 × 125 mm (4.2 × 7.9 × 4.9 in)
Mounting	¼"-20

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