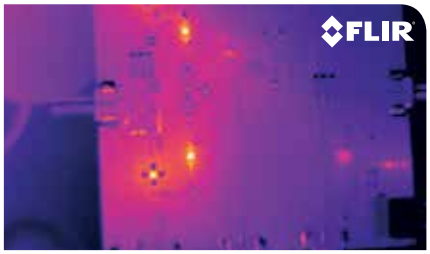
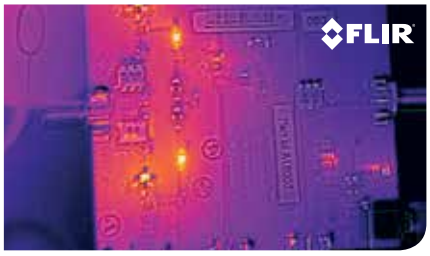
FLIR T650sc / T630sc

Portable Thermal Imaging Cameras

The T650sc / T630sc Series infrared cameras offer thermal and visual imagery, spot size resolution, and reliable temperature measurement accuracy—all at an affordable cost. Technicians, engineers, and scientists will appreciate features including a built-in digital camera, voice annotation, laser target locator, GPS, and much more. The tiltable IR unit gives you great flexibility and allows you to conduct your experiments fast and in a comfortable position.



Thermal image without MSX.



Thermal image without MSX. MSX allows seeing even more detail on the thermal image.

EXCELLENT IMAGE QUALITY AND THERMAL SENSITIVITY

The T650sc / T630sc cameras are equipped with an uncooled Vanadioum Oxide (VoX) microbolometer detector that produces thermal images of 640 x480 Pixels. They generate crisp and clear detailed images that are easy to interpret, resulting in reliable imaging with high accuracy.

TOUCH SCREEN

The high quality LCD touch screen presents sharp and bright images and brings interactivity and user comfort to a new level. In combination with the large backlit buttons and joystick the cameras are very easy to use.

RADIOMETRIC RECORDING

The T650sc / T630sc allow for full dynamic video streaming to a PC using USB or to mobile devices using Wi-Fi. They can also create visual and thermal non radiometric MPEG-4 video files. The T650sc can record radiometric IR sequences in real-time directly on the camera. These sequences contain all temperature data and can be post analyzed during playback on the camera or PC.

RICH FEATURE SET

The T650sc / T630sc come with features like Multi Spectral Dynamic Imaging (MSX), UltraMax™ image enhancement, auto-image rotation, image sketch and autofocus. They are equipped with Auto Hot/Cold Spot & 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.

SOFTWARE

FLIR T650sc / T630sc cameras work seamlessly together with FLIR ResearchIR Max software enabling intuitive viewing, recording and advanced processing of the thermal data provided by the camera.

MATHWORKS® MATLAB

Control the T650sc / T630sc and capture data directly into MathWorks® MATLAB software for advanced image analysis and enhancement.

KEY FEATURES

- Thermal and visual camera
- VoX uncooled microbolometer: 640 x 480 pixels
- Accuracy of +/- 1 °C
- Multi-spectral dynamic imaging (MSX)
- Ultramax for up to 1.2 mp thermal resolution
- Software included

MathWorks

Imaging Specifications

System Overview	T650sc	T630sc
Detector Type	Uncooled Microbolometer	
Spectral Range	7.5 – 13.0 µm	
Resolution	640 × 480	
Detector Pitch 25 µm	17 µm	
NETD	<20 mK	<30 mK
Electronics / Imaging		
Time Constant	<8 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	No
Analog Video	DVI over HDMI	
GSP	Location data stores with every image	
Command & Control	USB, WiFi	
Measurement		
Standard Temperature Range	-40°C to 650°C -40°F to 1202°F	
Accuracy	±1°C or ±1%(limited temperature range) ±2°C or 2%, whichever is greater, at 25°C nominal	
Optics		
Camera f/#	f/1.0, Integrated Lens 18 mm (25°)	
Available Lenses	88.9 mm (7°), 41.3 mm (15°), 24.6 mm (25°),13.1 mm (45°), 6.5 mm (80°)	
Close-up Lenses / Microscopes	Close-up (25 µm), (50 µm), (100 µm)	
Focus	Continuous Automatic or Manual (Motorized and tactile)	
Image Presentation		
On-Camera Display	Touch Screen/4.3 in LCD Display (1024 × 600) LCD Viewfinder (800 x 600)	
Auto-Orientation Keeps Onscreen Temperature Data	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	Spot Meters, Areas, Auto Hot / Cold Detection,Difference Temp, Isotherms, Alarms
Image Annotations	60 Sec Voice, Text, 4 x Markers, Sketch	
Visible Image	5.0 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)	
Power AC Adapter 90-260 VAC, 50/60 Hz	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	1.3 kg (2.87 lb)	
Size (L × W × H)	143 × 195 × 95 mm (4.2 × 7.9 × 4.9 in)	
Mounting	¼"-20	

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