FLIR T500-SERIES™

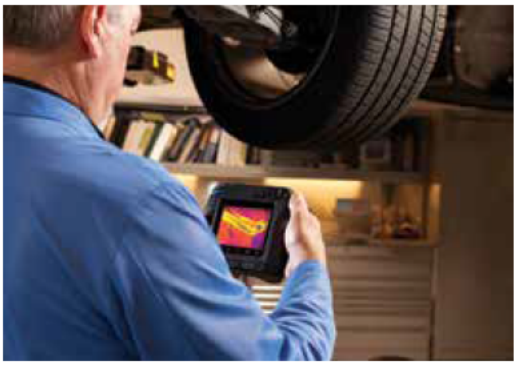
Professional Thermal Imaging Camera

The FLIR T530 and T540 are designed to support engineers and researchers with resolution, speed, and flexibility. These uncooled infrared cameras offer precision measurement and crisp, vibrant imagery enhanced through UltraMax® technology and the exacting detail of Macro Mode. And thanks to a new ergonomic design and intuitive, rapid-response interface, T500-Series cameras can increase efficiency and help reduce test times.

COMPREHENSIVE PRECISION ANALYSIS

Measure temperature with the sensitivity and detail needed for fast identification of faults and thermal gradients

- Sensitive enough to detect temperature differences smaller than 0.03°C
- Built-in Macro Mode measures components down to 71 µm/pixel* spot size, or 50 µm/pixel* with a macro lens (available in 2018)
- Quantify heat generation and thermal dissipation up to 1500°C

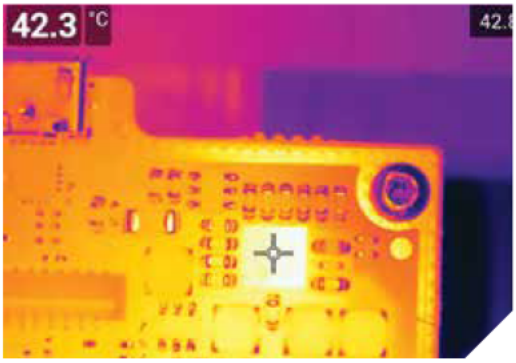


Ease of operation and ergonomic design make the T500 series an essential tool for product development and research

REDUCE TEST TIMES

Set up, start testing, then analyze thermal data quickly thanks to streamlined user features and analysis tools

- Start measuring quickly and easily thanks to intuitive GUI and menus
- Radiometric data streaming over USB or Wi-Fi lets you skip straight from testing to analysis
- Analyze and share data through FLIR Tools+, or gain more in-depth analysis with FLIR ResearchIR software



71 µm/pixel spot size performance, for accurate readings on small targets

OUTSTANDING IMAGE CLARITY

Build client trust through sharp, brilliant images that are easy for non-expert clients to interpret

- Produce stand-out 464 x 348 pixel IR imagery, or enhance to 645,888 pixels thorugh UltraMax® processing*
- Help non-expert clients interpret images by adding perspective with FLIR's proprietary MSX® image enhancements
- Ensure tack-sharp focus for crisp imagery by using the precise laser-assisted autofocus

**Model T540 only*

www.flir.com/T500science

FLIR® The World's Sixth Sense®

Specifications

Features by Camera	T530	T540
IR Resolution	320 x 240 (76,800 pixels)	464 x 348 (161,472 pixels)
UltraMax® Resolution	307,200 effective pixels	645,888 effective pixels
Object Temperature Range	-20°C to 120°C (-4°F to 248°F) 0°C to 650°C (32°F to 1202°F) Optional Calibration: 300°C to 1200°C (572°F to 2192°F)	-20°C to 120°C (-4°F to 248°F) 0°C to 650°C (32°F to 1202°F) 300°C to 1500°C (572°F to 2732°F)
Digital Zoom	1-4x continuous	1-6x continuous
Common Features		
Detector Type and Pitch	Uncooled microbolometer, 17 µm	
Thermal Sensitivity/ NETD	<30 mK @ 30°C (42° lens)	
Spectral Range	7.5 - 14.0 µm	
F-Number	f/1.1 (42° lens), f/1.3 (24° lens), f/1.5 (14° lens)	
Minimum Focus Distance	42° lens – 0.15 m 24° lens – 0.15 m 14° lens – 1.0 m	
Macro Mode	24° lens option / 103 µm effective spot size	24° lens option / 71 µm effective spot size
Lens Identification	Automatic	
Focus	Continuous with laser distance meter (LDM), one-shot LDM, one-shot contrast, manual	
Image Frequency	30 Hz	
Programmable Buttons	2	
Image Presentation and Modes		
Display	4", 640 x 480 pixel touchscreen LCD with auto-rotation	
Digital Camera	5 MP, with built-in LED photo/video lamp	
Color Palettes	Iron, Gray, Rainbow, Arctic, Lava, Rainbow HC	
Image Modes	Infrared, visual, MSX®, Picture-in-Picture, optional Macro Mode	
Picture-in-Picture	Resizable and movable	
UltraMax®	Image processing that quadruples pixel count	
Measurement and Analysis		
Accuracy	±2°C (±3.6°F) or ±2% of reading for ambient temperature 15°C to 35°C (59°F to 95°F) and object temperature above 0°C (32°F)	
Spotmeter and Area	3 ea. in live mode	
Measurement Presets	No measurement, center spot, hot spot, cold spot, User Preset 1, User Preset 2	
Laser Pointer	Yes	
Laser Distance Meter	Yes; dedicated button	
Annotations		
Voice	60 sec. recording added to still images or video via built-in mic (has speaker) or via Bluetooth	
Text	Predefined list or touchscreen keyboard	
Image Sketch	From touchscreen, on infrared image only	
GPS	Automatic GPS image tagging	
METERLiNK®	Yes	
Image Storage		
Storage Media	Removable SD card	
Image File Format	Standard JPEG with measurement data included	
Time Lapse (Infrared)	10 sec to 24 hrs	

Video Recording and Streaming	
Radiometric IR Video Recording	Real-time radiometric recording (.csq)
Non-Radiometric IR or Visual Video	H.264 to memory card
Radiometric IR Video Streaming	Yes, over UVC or Wi-Fi
Non-Radiometric IR Video Streaming	H.264 or MPEG-4 over Wi-Fi MJPEG over UVC or Wi-Fi
Communication Interfaces	USB 2.0, Bluetooth, Wi-Fi
Video Out	DisplayPort over USB Type-C
Additional Data	
Battery Type	Li-ion battery, charged in camera or on separate charger
Battery Operating Time	Approx. 4 hours at 25°C (77°F) ambient temperature and typical use
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)
Shock/Vibration/ Encapsulation; Safety	25 g / IEC 60068-2-27, 2 g / IEC 60068-2-6, IP 54; EN/UL/CSA/PSE 60950-1
Weight/Dimensions	1.3 kg (2.9 lbs), 140 x 201 x 84 mm (5.5 x 7.9 x 3.3 in)
Box Contents	
Packaging	Infrared camera with lens, 2 batteries, battery charger, neck strap, hard transport case, lanyards, front lens cap, power supply for battery charger, printed documentation, 8 GB SD card, cables (USB 2.0 A to USB Type-C, USB Type-C to HDMI, USB Type-C to USB Type-C)

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