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

**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

**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 through 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

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

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

www.flir.com/T500science
## Specifications

### Features by Camera

<table>
<thead>
<tr>
<th>Camera</th>
<th>T530</th>
<th>T540</th>
</tr>
</thead>
<tbody>
<tr>
<td>IR Resolution</td>
<td>320 x 240 (76,800 pixels)</td>
<td>464 x 348 (161,472 pixels)</td>
</tr>
<tr>
<td>UltraMax® Resolution</td>
<td>307,200 effective pixels</td>
<td>645,888 effective pixels</td>
</tr>
<tr>
<td>Object Temperature Range</td>
<td>-20°C to 120°C (-4°F to 248°F) 0°C to 650°C (32°F to 1202°F)</td>
<td>-20°C to 120°C (-4°F to 248°F) 0°C to 1500°C (32°F to 2732°F)</td>
</tr>
<tr>
<td>Digital Zoom</td>
<td>1-4x continuous</td>
<td>1-6x continuous</td>
</tr>
</tbody>
</table>

### 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

- **Radome IR Video Recording**: Real-time radiometric recording (.csq)
- **Non-Radome IR Video Recording**: H.264 to memory card
- **Radiometric IR Video Streaming**: Yes, over UVC or Wi-Fi
- **Non-Radome IR Video Streaming**: H.264 or MPEG-4 over 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 to Type-C, USB Type-C to HDMI, USB Type-C to Type-C)

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