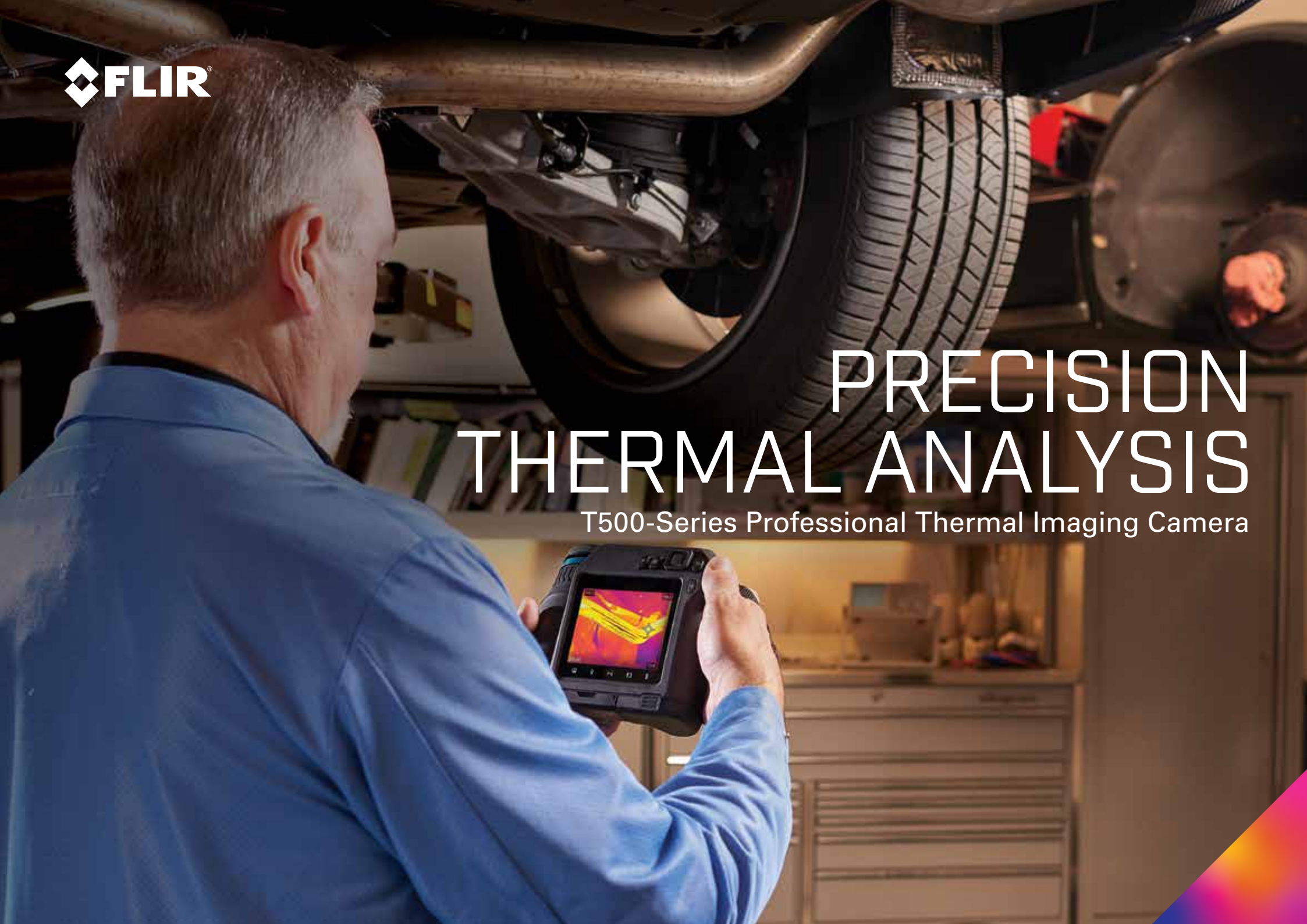




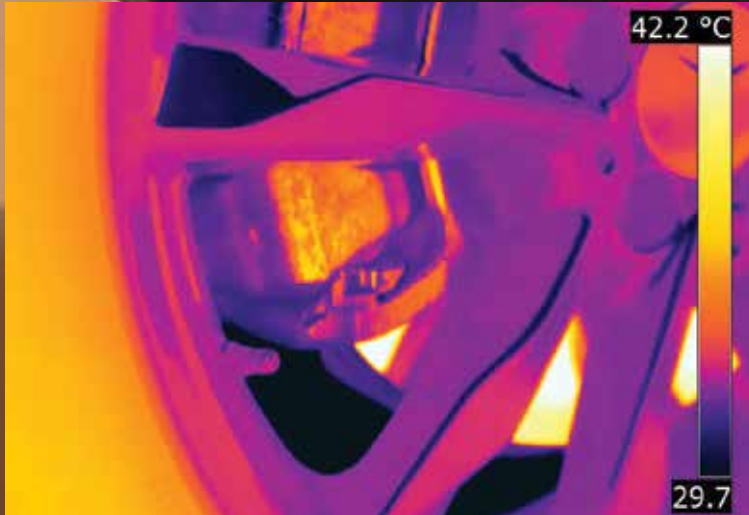
# PRECISION THERMAL ANALYSIS

T500-Series Professional Thermal Imaging Camera





# FAST, EFFICIENT TESTING PRECISION RESULTS

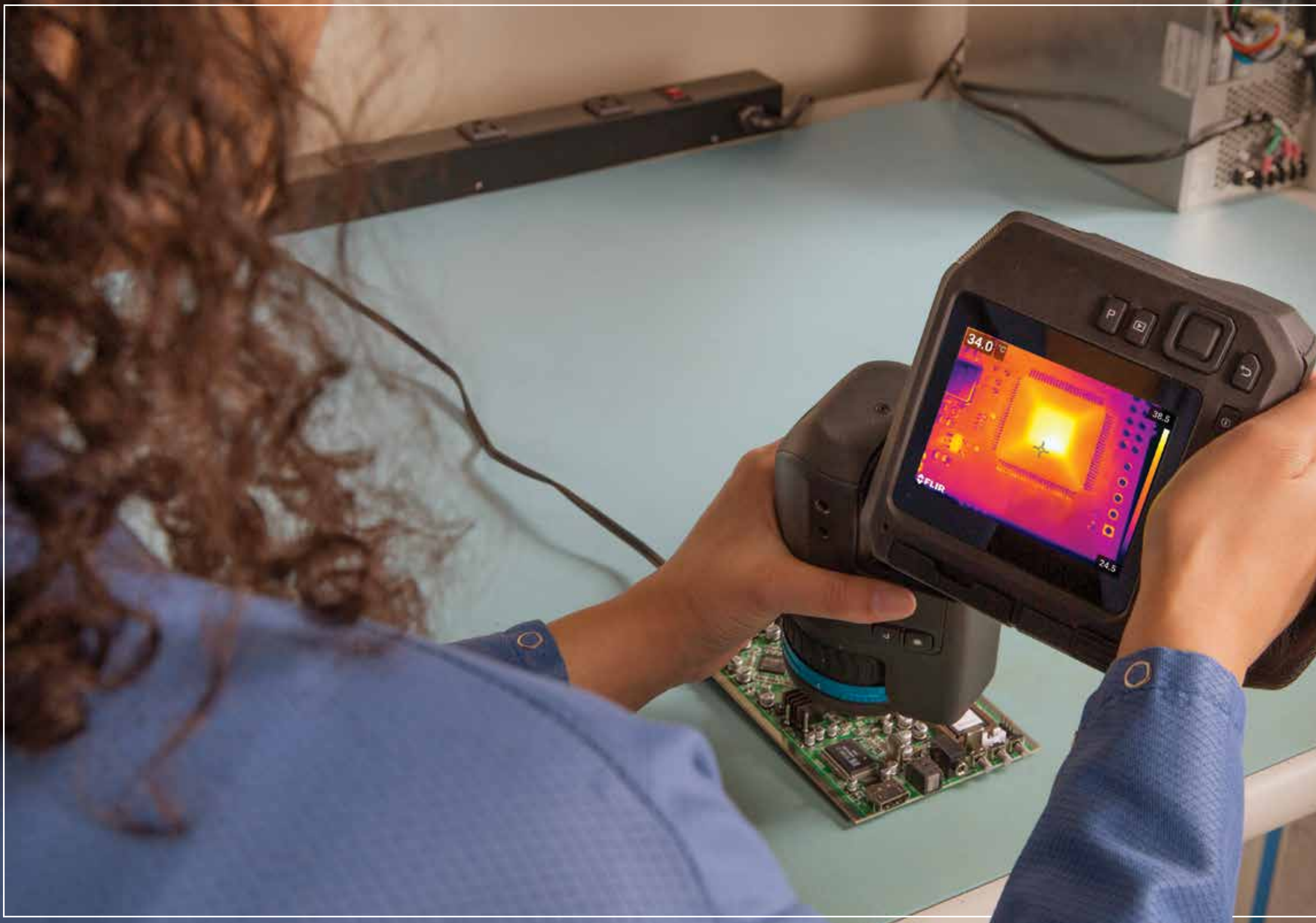


## Ideal for R&D/Science Applications

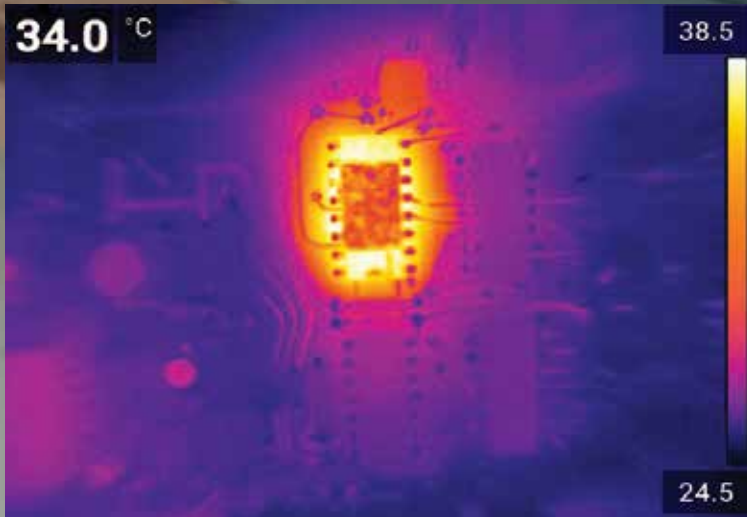
FLIR T500-Series Professional Thermal Imaging Cameras provide the resolution, crisp imagery, and temperature accuracy needed to help researchers and engineers improve product design, increase efficiency, or gain insight into a target's thermal behavior. With up to 307,200 temperature measurement points, the exacting detail of Macro Mode, and useful features such as 1-Touch Level/Span, the FLIR T500-Series will help you quickly identify hot spots and potential design flaws.

With the FLIR T500-Series, you can:

- **Deepen your understanding of products and processes** with Macro Mode measurement down to 50  $\mu\text{m}$  per pixel spot size (T560).
- **Measure targets comfortably in any lab environment**, thanks to the streamlined form-factor and 180° rotating optical block.
- **Reduce test times and increase efficiency** through rapid camera setup and advanced analysis tools.
- **Improve data sharing** and build client trust with vivid imagery that even non-experts can interpret.



# EXPANDABLE AND MODULAR



Record images with up to  $640 \times 480$  true native resolution or enhance to more than 1.2 MP through FLIR UltraMax® for the most accurate temperature measurements. Activate Macro Mode to measure small components down to  $50 \mu\text{m}$  using the  $24^\circ$  lens or down to  $24 \mu\text{m}$  with the 2x macro lens (T560).



## Multiple Targets, One Solution

Not every target is large enough or close enough for proper measurement with a single lens. That's why FLIR designed the T500-Series with interchangeable  $24^\circ$ ,  $42^\circ$ , and  $14^\circ$  lenses as well as a macro lens so you can use the same camera for every target you survey.

The camera auto-calibrates with each new lens to ensure it produces high-quality images and precise thermal measurements.





Two programmable buttons

Speaker plays back voice annotation

Vibrant, 4" optically-bonded PCAP touchscreen

180° rotating optical block for imaging at multiple angles


Scratch-resistant Dragontrail™ glass

Mic for voice annotation

Li-ion battery for extended use times

# FLIR T500-Series™

T530 | T540 | T560

A black FLIR T540 thermal camera is shown from a three-quarter perspective. The camera has a textured grip and a lens assembly. A callout line points to a button on the side of the camera body. Another callout line points to the lens assembly. A third callout line points to the front of the lens. A fourth callout line points to a small lens element on the front of the lens assembly. The camera is set against a dark, reflective background.

Separate Autofocus and  
Image Recording buttons

Interchangeable AutoCal™  
24°, 42°, and 14° lenses, plus a  
macro lens\*

Laser aids in precise  
autofocus

Built-in LED lamps

5 MP visible light camera

## EXCELLENCE IN PERFORMANCE AND DESIGN

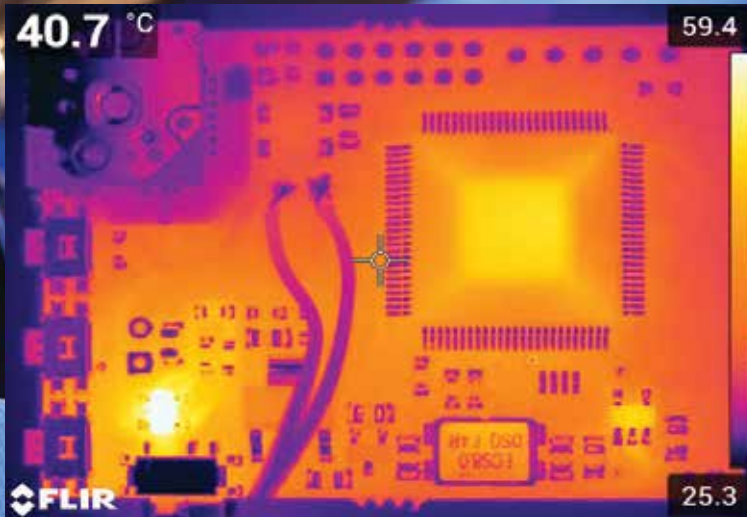
FLIR T530/T540/T560 cameras are packed with performance features that speed up testing and deliver precision results: an ergonomic design, built-in macro mode, razor-sharp macro lens\*, and analysis software that's a snap to learn.

\*not AutoCal-compatible





# INVESTIGATE, ANALYZE, SHARE



With the sensitivity to detect temperature differences of less than 0.03°C, the FLIR T500-Series allows you to find hidden design flaws and track small thermal gradients. These cameras offer a wide temperature range for quantifying heat generation and thermal dissipation up to 1500°C. Measurements are accurate to ±2%, promoting quality assurance and factory acceptance of printed circuit boards and other products.



## Optimized for Demanding Lab Environments

- Bright, 4" display with a 160° viewing angle
- 180° optical block rotation for imaging a range of target sizes
- Intuitive folder and naming structure, so images are easy to find
- Streams radiometric data directly to a computer over USB
- Enhanced data collection, analysis, and sharing with FLIR Research Studio software



# Specifications

T-Series_Science By Camera	T530	T540	T560
IR Resolution	320 x 240 (76,800 pixels)	464 x 348 (161,472 pixels)	640 x 480 (307,200 pixels)
UltraMax® Resolution	307,200 effective pixels	645,888 effective pixels	1,228,800 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)	-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)
Measurement Information	17 µm	17 µm	12 µm
Macro Mode (24° lens option)	103 µm effective spot size	71 µm effective spot size	50 µm effective spot size
Digital Zoom	1-4x continuous	1-6x continuous	1-8x continuous

Common Features	
Detector Type	Uncooled microbolometer
Thermal Sensitivity/NETD	<30 mK @ 30°C (86°F), 42° lens
Spectral Range	7.5–14.0 µm
Image Frequency	30 Hz
Programmable Buttons	2
Lens Identification	Automatic
F-Number	f/1.1 (42° lens), f/1.3 (24° lens), f/1.5 (14° lens)
Focus	Continuous with laser distance meter (LDM), one shot LDM, one-shot contrast, manual
Programmable Buttons	2
Image Presentation	
Display	4", 640 x 480 pixel touchscreen LCD with auto-rotation
Digital Camera	5 MP, with built-in LED photo/video lamp
Color Palettes	Arctic, White Hot, Black Hot, Iron, Lava, Rainbow, Rainbow HC
Image Modes	Infrared, visual, MSX®, Picture-in-Picture, optional Macro Mode
Measurement and Analysis	
Accuracy	±2°C (±3.6°F) or ±2% of reading
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

Area Measurement Information	Yes, with laser distance meter active
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 image tagging
METERLiNK®	Wireless connection to FLIR meters that also have METERLiNK
Image Storage	
Storage Media	Removable SD card
Image File Format	Standard JPEG with temperature measurement data
Time Lapse (Infrared)	10 sec to 24 hrs (infrared)
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
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)
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 and 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), license card for FLIR Thermal Studio Pro + FLIR Route Creator (3 month subscription)

Specifications are subject to change without notice. For the most up-to-date specs, go to [www.flir.com](http://www.flir.com)

T500-Series cameras are backed by FLIR's industry-leading warranty

2 years: Full protection, parts, labor

5 years: Battery

10 years: Detector



Learn more about these T500-SERIES cameras at [www.flir.com/T-Series\\_Science](http://www.flir.com/T-Series_Science)

**FLIR T500-Series™**  
T530 | T540 | T560

# SPECIFICATIONS & SUPPORT



FLIR offers education and training programs at its production facilities, regionally, or at your location. FLIR assists beginners to seasoned professionals in the following areas:

- On-line Training Courses
- Infrared Thermography for Research and Development
- Advanced Radiometry
- Thermography R&D Application Webinars
- Infrared Technology & Application Seminars
- Customer Site Consultation Services

## The Infrared Training Center

The mission of the Infrared Training Center is to make our customers and partners successful by enhancing their knowledge of IR technology, thermal imaging products, and relevant applications.

At ITC, you can take initial training courses in thermography, or receive more advanced training specific to research and development. All of our instructors are experienced thermal imaging specialists who have practical experience with numerous applications.



## Thermography Certification Training

Level I certifies that you know how a thermal imager works and how to use it. Level II cranks your credibility up a notch with more in-depth concepts and intensive labs. Level III asserts that you have knowledge and skills to administer your company's thermography program. These certifications offer strong validation to support the work you do as a thermographer.

Mobile Training Units and on-site training at your facility are encouraged if you would like to certify a group of 10 or more. For a complete list and schedule of courses and more information, visit [www.infraredtraining.com](http://www.infraredtraining.com).

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NASDAQ: FLIR

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