

# FLIR T800-Series

## HIGH-PERFORMANCE HANDHELD INFRARED CAMERAS

FLIR T800-Series thermal imaging cameras are powerful, ergonomic non-contact inspection tools. The 180° tilting optic design makes it comfortable, safe, and easy to assess the condition of critical electrical and mechanical equipment all day long. With advanced features including unmatched temperature measurements down to -40°C, accuracy as good as  $\pm 1^\circ\text{C}$  /  $\pm 1$  percent, 1-Touch Level/Span contrast enhancement, and laser-assisted autofocus, you'll get highly accurate temperature measurements every time. Pair the T865 with a 6° FOV IR lens to perform inspections on small targets from long distances. With the on-board Inspection Route system, you'll be able to record temperature data and imagery in a logical sequence for faster troubleshooting and repair. Adding a FLIR T800-Series camera to a condition monitoring/predictive maintenance program can help reduce maintenance costs, improve system efficiency and reliability, and prevent downtime.

### KEY FEATURES:

**ERGONOMIC THERMAL IMAGING**

**180° ROTATING LENS BLOCK**

**640 × 480 IR RESOLUTION**

**MSX® AND ULTRAMAX®**

**1-TOUCH LEVEL & SPAN**

**FLIR THERMAL STUDIO PRO REPORTING**

**FLIR ROUTE CREATOR PLUG-IN**

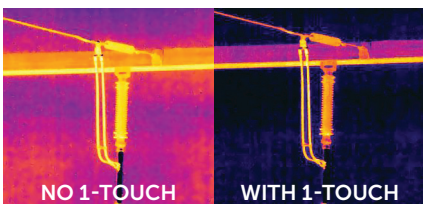
**FLIR IGNITE™ CLOUD**



*Collect and manage critical data quickly and easily*



*Assess the state of equipment from a safe distance, at any angle, or in any lighting condition*



*Instantly dial in clarity and accuracy with 1-Touch Level/Span*

### IMPROVE WORKFLOW EFFICIENCIES

Collect and manage critical data quickly and easily

- Develop inspection routes in FLIR Thermal Studio Pro with FLIR Route Creator\* and upload them to the camera for streamlined inspections of critical assets
- Acquire temperature data and thermal and visual imagery in a logical sequence for faster preventative/predictive maintenance procedures
- Upload directly and securely to FLIR Ignite cloud and automate data management and reporting through easy transfer of organized files to FLIR Thermal Studio Pro\*

### WORK SAFELY AND COMFORTABLY

Assess the state of equipment from a safe distance, at any angle, or in any lighting condition

- Use the camera in any environment – indoors or out – with a large, vibrant 4-inch color LCD display and an integrated eyepiece viewfinder for working in bright sunlight
- Image targets overhead or down low without strain thanks to the 180° rotating optical block and ergonomic design
- Accurately measure small targets over long distances or in large scenes by pairing the high-resolution IR sensor with the optional 6° telephoto lens

### MAKE CRITICAL DECISIONS QUICKLY

Save time and share data faster to increase in-field efficiency

- Ensure precision measurement with laser-assisted autofocus, 1-Touch Level/Span, and exceptional temperature accuracy<sup>1</sup>
- Avoid diagnostic errors with industry-leading image clarity from FLIR Vision Processing™, combining MSX, UltraMax, and proprietary adaptive filtering algorithms
- Optimize workflows with reporting features such as built-in voice annotation, customizable work folders, and Wi-Fi sync to FLIR mobile apps

\*All new purchases include a three-month trial of FLIR Thermal Studio Pro and the FLIR Route Creator plugin. At the end of the trial period, users who choose not to purchase a full-year subscription will be transitioned to FLIR Thermal Studio Starter.

<sup>1</sup>Accuracy as good as  $\pm 1\%$  with T865, see specs for more details

## SPECIFICATIONS

Features By Camera		T840	T865
IR Resolution		464 × 348 (161,472 pixels; 645,888 with UltraMax®)	640 × 480 (307,200 pixels; 1,228,800 with UltraMax®)
Detector Pitch		17 µm	12 µm
Object Temperature Range		-20 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 2000°C (572°F to 3632°F)
Digital Zoom		1-6x continuous	1-8x continuous
Macro Mode (24° lens option)		71 µm min. focus distance	50 µm min. focus distance
Spotmeter and Area		3 each in live mode	10 and 5 in live mode
Accuracy		±2°C (±3.6°F) -20°C to 100°C (-4°F to 212°F), ±2%: 100°C to 650°C (212°F to 1202°F), 300°C to 1500°C (572°F to 2732°F),	±1°C (±1.8°F): 5°C to 100°C (41°F to 212°F) ±1%: 100°F to 120°C (212°F to 248°F) ±2°C (±3.6°F): -40°C to 100°C (-40°F to 212°F) ±2%: 100°C to 650°C (212°F to 1202°F), 300°C to 2000°C (572°F to 3632°F) ±3%: 1800°C to 2000°C (3272°F to 3632°F) with 42° lens
Detector Data			
Detector Type and Pitch		Uncooled microbolometer	
Thermal Sensitivity/NETD		<30 mK @ 30°C (42° lens)	
Spectral Range		7.5 - 14.0 µm	
Image Frequency		30 Hz	
Lens Identification		Automatic	
F-Number		f/1.1 (42° lens), f/1.3 (24° lens), f/1.5 (14° lens), f/13.5 (6° lens)	
Focus		Continuous with laser distance meter (LDM), one-shot LDM, one-shot contrast, manual	
Minimum Focus Distance		*42° lens: 0.15 m/0.49 ft, 24° lens: 0.15 m/0.49 ft, 14° lens: 1.0 m/3.28 ft, 6° lens: 5.0 m/16.4 ft*	
Programmable Buttons		2	
Image Presentation and Modes			
Display		4", 640 × 480 pixel touchscreen LCD with auto-rotation	
Digital Camera		5 MP with built-in LED photo/video lamp	
Color Palettes		Iron, Rainbow, Rainbow HC, White hot, Black hot, Arctic, Lava	
Image Modes		Infrared, visual, MSX®, Picture-in-picture	
Picture-in-Picture		Resizable and movable	
UltraMax®		Activated in menu and processed in FLIR reporting software	
Measurement and Analysis			
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, displays distance on-screen	
On-screen Area Measurement		Yes; calculates area inside measurement box in m² or ft²	

Annotations	
FLIR Inspection Route	Enabled in the camera
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	Infrared images only; from touchscreen
METERLiNK®	Yes
GPS	Automatic image tagging
Communication & Connections	
Cloud Services (via Wi-Fi)	FLIR Ignite for direct, secure image uploading, organizing, storage, and sharing (required firmware available)
METERLiNK (via Bluetooth)	Wireless connection to FLIR meters with METERLiNK
Image Storage	
Storage	Removable SD card; FLIR Ignite cloud uploading
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 Streaming	Compressed, 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, DisplayPort
Video Out	DisplayPort
Additional Data	
Languages	21
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 (including battery)	1.4 kg (3.1 lbs)
Size (l×w×h, lens vertical)	164 × 201.3 × 84.1 mm (6.5 × 7.9 × 3.3 in)
Box Contents	
Packaging	Infrared camera with lens, small viewfinder eyecup, 2 rechargeable batteries, battery charger, hard transport case, lanyards, front lens cap, power supplies, printed documentation, SD card (8GB), cables (USB 2.0 A to USB Type-C, USB Type-C to HDMI, USB Type-C to USB Type-C), License card: FLIR Thermal Studio Pro (3-month subscription) + FLIR Route Creator Plugin for Thermal Studio Pro*