FLIR T-Series

640 x 480

FLIR T640

First Choice for Professional Thermographers

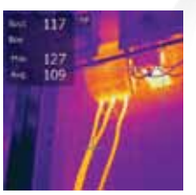
The exciting new FLIR T640 moves to the head of its class in professional and expert level cameras, providing the highest infrared resolution in the T-Series line and a new list of impressive features.

- 5 MP visible light camera with lamp
- 4.3" Bright Touch-screen LCD
- 8x Digital Zoom
- Voice, text, sketch, and draw-direct annotation
- P-i-P and fusion to superimpose thermal images
- Realtime video frame rate
- Instant Reports

5 MP Digital Camera with Lamp

Multifunction 3.5" Touch-Screen

Tiltable Lens



Delta T-Differential Temperature

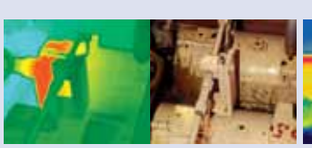
FLIR T640 Features

- **New! Highest IR Resolution in Its Class** - Crisp thermal images up to 307,200 pixels (640 x 480) for greater accuracy and readability from longer range distances
- **Wide Temperature Range** - Measures from -40°C to +2000°C
- **New! Higher Resolution Digital Camera** - 5 megapixel detector with LED lamps provides sharper visible light images for clear reference pictures of target objects
- **New! Large Touch-screen** - 4.3" LCD displays bright, sharp images and graphics with intuitive interface and efficient on-screen report generation
- **Viewfinder** - Built-in color viewfinder for easier viewing in bright environments
- **New! More Measurement Tools** - Report further details with 10 measurement spots, 5 box areas, Delta T-Differential temperature, isotherm, and auto hot/cold markers
- **High Thermal Sensitivity** - Sensitivity of 0.04˚C at 30˚C. Detailed, low-noise imaging to detect the smallest temperature differences and subtle problems
- **Ergonomic Tilting Lens** - Popular T-Series design allows 120° rotation of optical block for more comfortable operation when capturing images from challenging angles
- **Advanced Optics** - A range of lenses to fit your application needs including the standard 25° and optional 15°, and 45° optics
- **Thermal Fusion and P-i-P** - Blend thermal and visible light images onscreen and scale picture-in-picture overlays to identify targets and locations easily
- **Video Recording** - MPEG4 non-radiometric IR or daylight video recording to SD card
- **8x Digital Zoom** - Measurement presets and Line profile
- **Realtime** - video frame rate
- **Instant Reports**

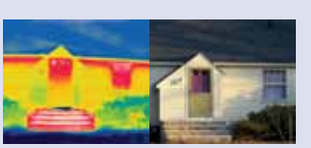
Applications

Electrical: Hot Fuses

Motor: Internal Winding Problem



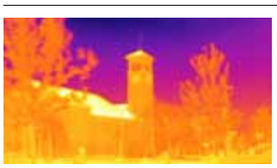
Motor: Bearing Problem



Building: Heat Loss

FLIR T640 Specifications

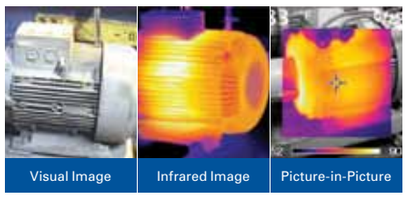
Imaging and optical data	
Field of view (FOV) / Minimum focus distance	25° × 19° / 0.25 m (0.82 ft.)
Spatial resolution (IFOV)	0.68 mrad
Thermal sensitivity/NETD	<40 mK @ +30°C (+86°F)
Image frequency	30 Hz
Focus	Automatic (one shot) or manual
Zoom	1–8× continuous, digital zoom, including panning
Focal Plane Array (FPA) / Spectral range	Uncooled microbolometer / 7.8–14 µm
IR resolution	640 × 480 pixels
Image presentation	
Display	Built-in Touch-screen, 4.3 in. wide screen LCD, 800 × 480 pixels
Viewfinder	Built-in 800 × 480 pixels
Automatic image adjustment	Continuous/manual; linear or histogram based; possible to lock max, min or span temperature
Manual image adjustment	Level/span/max/min
Image modes	IR image, visual image, thermal fusion, Picture-in-Picture, thumbnail gallery
Thermal fusion	IR image shown above, below or within temp interval on visual image
Picture-in-Picture	Resizable and movable IR area on visual image
Measurement	
Temperature range	–40°C to +150°C (–40°F to +302°F), +100°C to +650°C (+212°F to +1202°F) +300°C to +2000°C (+572°F to +3632°F)
Accuracy	±2°C (±3.6°F) or ±2% of reading
Measurement analysis	
Spotmeter	10
Area	5 boxes or circles with max./min./average
Automatic hot/cold detection	Max/Min temp. value and position shown within box, circle or on a line
Isotherm	Above/below/interval
Profile	1 live line
Measurement presets	Yes
Difference temperature	Delta temperature between measurement functions or reference temperature
Reference temperature	Manually set or captured from any measurement function
Emissivity correction	Variable from 0.01 to 1.0 or selected from materials list
Measurement corrections	Reflected temperature, optics transmission, atmospheric trans and external optics
Set-up	
Color palettes	Iron, Gray, Rainbow, Arctic, Lava, Rainbow HC
Set-up commands	Configure information to be shown in image; programmable button; local adaptation of units, language, date and time formats, camera software update
Camera software update	Use PC software FLIR Tools
Storage of images	
Image storage	Standard JPEG, including measurement data, on memory card
Image storage mode	IR/visual images, simultaneous storage of IR and visual images. Visual and IR image automatically grouped together
Video recording in camera and streaming to PC	
Non-radiometric IR and Digital camera video recording	MPEG-4 to memory card
Non-radiometric IR and Digital streaming	MPEG4 using USB
Data communication interfaces	
Interfaces	USB-mini, USB-A, Digital Video Output
USB	• USB-A: Connect external USB device • USB Mini-B: Data transfer to and from PC / streaming
Video out	Digital Video Output (DVI)
Video, connector type	HDMI compatible
Power system	
Battery	Li Ion, 3 hours operating time
Charging system	In camera (AC adapter or 12 V from a vehicle) or 2-bay charger
Power management	Automatic shutdown and sleep mode (user selectable)
Environmental data	
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)
Humidity (operating and storage)	IEC 60068-2-30/24 h 95% relative humidity +25°C to +40°C / 2 cycles
Encapsulation	IP 54 (IEC 60529)
Bump	25 g (IEC 60068-2-29)
Vibration	2 g (IEC 60068-2-6)
Physical data	
Weight	1.3 kg (2.87 lb.)
Size (L × W × H)	143 × 195 × 95 mm (5.6 × 7.7 × 3.7 in.)
Tripod mounting	UNC ¼"-20
Optional lens	
	Lens IR f=41.3 mm with case (15°), Lens IR f=24.6 mm with case (25°) Lens IR f=13.1 mm with case (45°)



45˚ Lens

25˚ Lens

15˚ Lens



Visual Image | Infrared Image | Picture-in-Picture

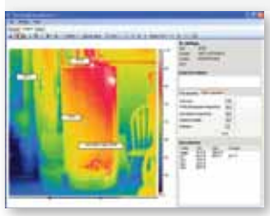
Picture-in-Picture Fusion

Allows for easier identification and interpretation of infrared images. This advanced technology enhances the value of an infrared image by allowing you to overlay it directly over the corresponding visible image. This functionality combines the benefits of both the infrared image and visual picture at the push of a button.

Training

The center offers a wide variety of infrared courses from entry-level thermography to advanced IR training. ITC infrared thermography certifications are globally recognized and are designed to exceed the requirements of international certification standards.

Check the ITC course schedule in the Asia Pacific region: www.flir.com/thg/itc



Optional Software

FREE FLIR QuickReport™

Allows the user to organize, analyze and present infrared image data in a report. Delivered with your FLIR camera.

FLIR Reporter™

A powerful yet easy-to-use tool to generate comprehensive and professional infrared inspection reports.

FLIR BuildIR™

Software designed to carry out advanced analysis of building structures. It is used to analyze images taken with an infrared camera and create inspection reports based on these images.

Accessories

Pouch
Extra battery
Battery charger
Car charger
Selection of lenses

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