

FLIR T640

First Choice for Professional



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
- MPEG4 streaming video over Wi-fi
- MSX



5 MP Digital Camera with Lamp



Multifunction 4.3" Touch Screen



Tilttable Lens



Wi-fi Connectivity



Delta T-Differential Temperature



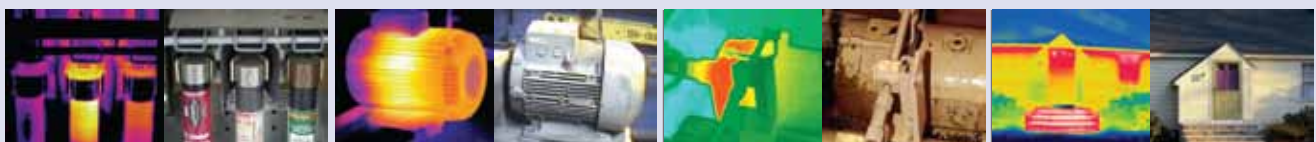
* after product registration on www.flir.com



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
- **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 Touchscreen** - 4.3" LCD displays bright, sharp images and graphics with intuitive interface and efficient on-screen report generation
- **New! Wi-Fi Connectivity** - Send images and data to mobile devices like an iPhone, iPad or PC to share critical information quickly
- **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
- **Bluetooth Communication** - Link and store moisture and clamp meter readings with IR images wirelessly to support your findings
- **Thermal Fusion and PiP** - Blend thermal and visible light images onscreen and scale picture-in-picture overlays to identify targets and locations easily
- **MPEG4** - non radiometric IR or daylight video recording to SD card
- **8x digital zoom** - Measurement presets and Line profile
- **Realtime** - video frame rate
- **Multi Spectral Dynamic Imaging (MSX)** - The innovative MSX feature produces an image more rich in every detail than ever before
- **Image sketch** - Indicate problem areas directly on the thermal image.
- **Continuous auto-focus** - Continuous automatic focus on the object that you are inspecting.
- **Built-in GPS** - GPS allows to georeference thermal images to determine their geographic location.

Applications



Electrical: Hot Fuses

Motor: Internal Winding Problem

Motor: Bearing Problem

Building: Heat Loss

FLIR T640 Specifications

Multi Spectral Dynamic Imaging (MSX)

Imaging and optical data	
Field of view (FOV)/Minimum focus distance	25° × 19° / 0.25 m (0.82 ft.)
Spatial resolution (IFOV)	0.69 mrad
Thermal sensitivity/NETD	<35 mK @ +30°C (+86°F)
Image frequency	30 Hz
Focus	Continuous, (one shot) or manual
Zoom	1–8× continuous, digital zoom, including panning
Focal Plane Array (FPA)/Spectral range	Uncooled microbolometer / 7.5–14 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
Multispectral Dynamic Imaging (MSX)	IR image with enhanced detailed presentation
Picture in Picture	Resizable and movable IR area on visual image
Measurement	
Temperature range	–40°C to +150°C (–4°F to +302°F) +100°C to +650°C (+212°F to +1202°F), (+300°C to +2000 °C)
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
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
Data communication interfaces	
Interfaces	USB-mini, USB-A, Bluetooth, Wi-Fi, Digital Video Output
Wi-Fi	Wireless communication between camera and external device
USB	• USB-A: Connect external USB device • USB Mini-B: Data transfer to and from PC / streaming MPEG
Video out	Digital Video Output (DVI)
Video, connector type	HDMI compatible
Power system	
Battery	Li Ion, 2.5 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 (+77°F to +104°F) / 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



MSX allows seeing even more detail on the thermal image.

Image sketch



Multifunctional LCD touch screen allows sketching and marking directly on the screen.

Picture-in-Picture



MeterLink



90° Lens

45° Lens

24° Lens

15° Lens

6° Lens

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