

# FLIR T640 / FLIR T620



State-of-the-art thermal imaging cameras that combine good ergonomics and flexibility with high image quality

The FLIR T640 / FLIR T620 offer a crisp thermal image of 640 x 480 pixels on which the smallest of details can be seen. An intuitive user interface supported by state-of-the-art touch-screen technology make the FLIR T640 / FLIR T620 extremely easy to use.



## 640x480 pixel resolution

The high definition 640x480 pixels detector generates crisp and clear detailed images that are easy to interpret, resulting in reliable inspections with higher accuracy.



## High sensitivity

The T640 allows you to see temperature differences as small as 0.04°C.



## Tiltable IR unit

The tiltable IR unit gives you great flexibility and allows you to work faster and in a comfortable position during your inspections.



## Large bright 4.3 inch LCD screen

The high quality LCD screen presents sharp and bright images also in outdoor environments.



## Viewfinder (FLIR T640)

The high-resolution viewfinder is ideal for outdoor use or when the LCD screen is not used.



## High quality visual camera

An integrated 5 megapixel visual camera generates crisp visual images in all conditions.



## Automatic- and manual focus

The FLIR T640/FLIR T620 has a manual focus on the lens as well as a quick one shot autofocus.



## Laser Pointer

The position of the laser pointer is highlighted on the IR-image, which helps you associate the hot spot in the image with the physical target.



## Flexible interfaces

Easy access to Digital Video Interface, USB for connecting external devices, USB2 for PC communication and a direct connection to charge the battery inside the camera.



## Radiometric IR video streaming

16 bit radiometric IR video can be streamed to a PC (via USB) running the FLIR R&D software.



## MPEG-4 video

Create visual and infrared non radiometric MPEG-4 video files.



## FLIR Thermal Fusion

Merges visual and thermal images for better analysis.



## Picture-in-picture

Create an infrared overlay on your visual image. Moveable and resizable, depending on model.



## Touch screen

The LCD touch screen brings interactivity and user comfort to a new level. In combination with the large backlit buttons and joystick control the T640/T620 is very easy to use.



## Sketch annotations

Include a sketch with the IR image of the inspected object, just draw it on the touch screen.



## Text and voice annotations

Text comments can be selected from a list. A Bluetooth headset can be connected to make voice annotations.



## Digital zoom

The FLIR T640 is equipped with a 1-8x continuous digital zoom and the T620 with a 1-4x zoom.



Connect to smartphone or tablet via Wi-Fi, use the FLIRViewer App (Apple) or FLIR Tools mobile (Android) for processing and sharing results



expert and professional



## FLIR T640 / FLIR T620 model comparison

### FLIR T620

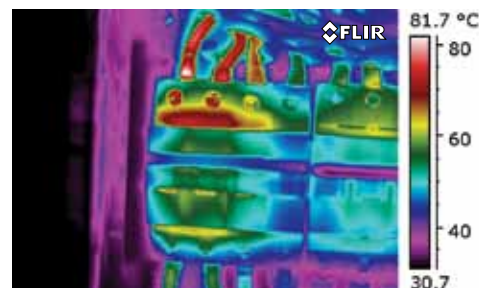


Thermal sensitivity: 50 mk  
LCD display only  
Measures temperatures up to +650°C  
1-4x continuous, digital zoom

### FLIR T640



Thermal sensitivity: 40 mk  
Viewfinder and LCD display  
Measures temperatures up to +2,000°C  
1-8x continuous, digital zoom  
Line profile function  
Measurement presets



Overheated connection.

# FLIR T620 - FLIR T640

## Technical specifications

### Camera specific



FLIR T620



FLIR T640

| Imaging performance                          |   |   |
|--|---|---|
| Field of View (FOV) / minimum focus distance | 25° x 19° / 0.25 m<br>15° x 11° / 0.5 m<br>45° x 34° / 0.15 m<br>lens needs to be specified when ordering | 25° x 19° / 0.25 m<br>15° x 11° / 0.5 m<br>45° x 34° / 0.15 m<br>lens needs to be specified when ordering |
| Spatial resolution                           | 0.68 mrad for 25° lens<br>0.41 mrad for 15° lens<br>1.23 mrad for 45° lens                                | 0.68 mrad for 25° lens<br>0.41 mrad for 15° lens<br>1.23 mrad for 45° lens                                |
| Thermal sensitivity (at 30 °C)               | 50 mK @ 30 °C   | 40 mK @ 30 °C   |
| Digital zoom                                 | Direct access, 1-4x continuous  | Direct access, 1-8x continuous  |
| Image presentation                           |   |   |
| Viewfinder                                   | N/A   | 800x480 pixels  |
| Measurement                                  |   |   |
| Temperature range, standard                  | -40 °C to +150 °C<br>+100 °C to +650 °C   | -40 °C to +150 °C<br>+100 °C to +650 °C<br>+300 °C to +2,000 °C   |
| Temperature range, optional                  | +300 °C to +2,000 °C  |   |
| Measurement analysis                         |   |   |
| Line profile function                        | N/A   | Live profile, H/V-direction   |
| Measurement presets                          | N/A   | Add preset measurement set up by the press of one button  |

### General

| Imaging performance  |  |
|--|--|
| Resolution   | 640x480 pixels   |
| Focal Plane array (FPA)                                      | Uncooled microbolometer 640x480 pixels, latest generation with 17 µm pitch   |
| Spectral range   | 7.8 to 14 µm   |
| Image frequency  | 30 Hz  |
| Focus  | Manual / autofocus   |
| Image presentation   |  |
| Display  | 4.3" superbright touchscreen LCD 800x480 pixels  |
| Image modes  | IR-image with selected color scale, Full color visual, Picture in Picture (Resizable and movable IR-area), Thermal Fusion (Threshold above, below and interval), thumbnail gallery |
| Manual image adjustments                                     | Level/span/max/min   |
| Automatic image adjustments, continuous or manual activation | Standard or based on histogram from image content  |
| Automatic image adjustment with locked scale                 | Lock max, min or span  |
| Measurement  |  |
| Accuracy   | ± 2 °C or ± 2% of reading  |



\* After product registration on [www.flir.com](http://www.flir.com)

## General

|   |  |
|---|--|
| <b>Measurement analysis</b>   |  |
| Spotmeter   | 10   |
| Area  | 5 Max/Min/Average value within box or circle   |
| Automatic hot/cold detection  | Max/Min temp. value and position shown within box, circle or on a line                                   |
| Isotherm  | Detect high/low temperature/interval   |
| Difference temperature  | Difference between any two measurement functions or any measurement function and a reference temperature |
| Reference temperature function  | Manually set   |
| Emissivity correction   | Variable from 0.01 to 1.0 or selected from materials list  |
| Measurement corrections   | Reflected temperature, optics transmission and atmospheric transmission                                  |
| External windows correction   | Automatic based on inputs of window temperature and transmission   |
| <b>Set-up</b>   |  |
| Image controls  | Palettes (Arctic, Gray, Iron, Lava, Rainbow and Rainbow HC), image adjustment (auto/manual)              |
| Set-up controls   | Local adaptation of units, language, date and time formats; automatic shutdown, display intensity        |
| Configure information to be shown in image  | ✓  |
| Programmable button   | ✓  |
| <b>Image storage</b>  |  |
| Type  | IR/visual images; simultaneous storage of visual and IR images   |
| Format  | Standard JPEG - including measurement data on SD memory card   |
| <b>Digital camera</b>   |  |
| Built-in digital camera   | 5 Mpixel incl. lamps   |
| <b>Laser LocatIR</b>  |  |
| Laser   | Semiconductor AlGaInP diode laser, Class 2 - position is displayed on the IR image                       |
| Laser alignment   | Laser position shown on IR-image   |
| <b>Image annotation</b>   |  |
| Voice   | 60 seconds via Bluetooth®  |
| Text  | Text from predefined list or soft keyboard on touch screen   |
| Sketch  | A sketch drawn on touch screen is automatically saved with image   |
| Meterlink   | Wireless connection to: Extech Moisture meter MO297 or Extech clamp meter EX845                          |
| <b>Report generation</b>  |  |
| Instant Report in camera  | Automatic generation of PDF report based on selected images direct in camera                             |
| <b>Video streaming /recording</b>   |  |
| Radiometric IR video streaming  | Full dynamic to PC using USB   |
| Non radiometric IR-video streaming  | MPEG 4 streaming to PC using USB   |
| Video recording in camera   | Non-radiometric IR video/visual video, MPEG4 to SD-card.   |
| WiFi  | Wireless streaming of non-radiometric IR-video, MPEG4  |
| <b>Update of camera</b>   |  |
| Automatic update of camera to latest version  | Automatic update of camera from PC running FLIR Tools  |
| <b>Data communication interfaces</b>  |  |
| Interfaces  | USB-mini, USB-A, Bluetooth®, WiFi, DVI video   |
| USB   | USB-A: Connect external USB device - USB-mini-B: Data transfer to and from PC / Streaming MPEG 4         |
| WiFi  | Connects directly to Ipad/Iphone for image transfer or via local network                                 |
| <b>Power</b>  |  |
| Battery type  | Lithium-Ion (field replaceable)  |
| Battery operating time  | > 2.5 hours at 25°   |
| Charging system   | In camera, AC adaptor, 2-bay charger or 12 V from a vehicle  |
| Power management  | Automatic shutdown and sleep mode (user selectable)  |
| AC operation  | AC adaptor, 90-260 V AC, 50/60 Hz  |
| Adaptor voltage   | 12 Volt VDC out  |
| <b>Environmental specifications</b>   |  |
| Operating temperature range   | -15 to +50 °C  |
| Storage temperature range   | -40 °C to +70 °C   |
| Humidity, operating and storage, non-condensing   | IEC 60068-2-30 /24 h, 95% relative humidity +25 °C to +40 °C   |
| Encapsulation   | IP 54, IEC 60529   |
| Bump, Operational   | 25G, IEC 60068-2-29  |
| Vibration, Operational  | 2G, IEC 60068-2-6  |
| EMC, emission   | EN 61000-6-3   |
| EMC, immunity   | EN 61000-6-2   |
| <b>Physical characteristics</b>   |  |
| Camera weight incl. battery   | 1.3 kg   |
| Camera size (L x W x H)   | 143 x 195 x 95 mm  |
| Tripod Mounting   | 1/4" - 20  |
| <b>Lenses optional</b>  |  |
| Tele lens, 15°  | 15° x 11° / 0.9 m  |
| Wide angle lens 45°   | 45° x 34° / 0.1 m  |
| <b>Standard package</b>   |  |
| FLIR T620 / T640: Hard transport case, thermal imaging camera with lens, Battery (2), Battery charger, Large eyecap, Tripod adaptor, Neck strap, Lens cap, Bluetooth® headset, Calibration certificate, FLIR Tools™ PC software CD-ROM, Memory card with adaptor, Power supply incl. multiplugs, Printed Getting Started Guide, Printed Important Information Guide, USB cable, User documentation CD-ROM, HDMI cable (2), Warranty extension card or Registration card |  |

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