

# FLIR T640bx / FLIR T620bx



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

The FLIR T640bx / FLIR T620bx 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 T640bx / FLIR T620bx extremely easy to use.

640  
x  
480

## 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.



## Picture-in-picture

Create an infrared overlay on your visual image. Adapts automatically to different lenses with different field of view. Moveable and resizable depending on camera model.



## High sensitivity

The T640bx allows you to see temperature differences as small as 0.04°C.



## 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 T640bx/T620bx is very easy to use.



## 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.



## Sketch annotations

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



## Large bright 4.3 inch LCD screen

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



## Text and voice annotations

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



## Viewfinder (FLIR T640bx)

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



## Digital zoom

The FLIR T640bx is equipped with a 1-8x continuous digital zoom and the T620bx with a 1-4x zoom.



## High quality visual camera

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



## Humidity Alarm/Insulation Alarm

The Relative Humidity Alarm alerts you to the areas where there is a risk of condensation. An Insulation Alarm shows the insulation performance of the building structure. By inputting relevant values into the camera the areas that fail to fulfill requirements will appear as colored.



## Automatic- and manual focus

The FLIR T640bx/FLIR T620bx have 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.



## FLIR Thermal Fusion

Merges visual and thermal images for better analysis.



## 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.

*\* Features dependant on camera model, please check technical specifications for more details.*



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



## FLIR T640bx / FLIR T620bx Model Comparison

### FLIR T620bx



Thermal sensitivity: 50 mk  
LCD display only  
1-4x continuous, digital zoom

### FLIR T640bx



Thermal sensitivity: 40 mk  
Viewfinder and LCD display  
1-8x continuous, digital zoom  
Line profile function  
Measurement presets



### FLIR Thermal Fusion

Merges visual and thermal images for better analysis.

# FLIR T620bx / FLIR T640bx

## Technical specifications

### Camera specific



	FLIR T620bx	FLIR T640bx
<b>Imaging performance</b>		
Field of View (FOV) / minimum focus distance	25° x 19° / 0.25 m 15° x 11° / 0.5 m 45° x 34° / 0.15 m lens needs to be specified when ordering	25° x 19° / 0.25 m 15° x 11° / 0.5 m 45° x 34° / 0.15 m lens needs to be specified when ordering
Spatial resolution	0.68 mrad for 25° lens 0.41 mrad for 15° lens 1.23 mrad for 45° lens	0.68 mrad for 25° lens 0.41 mrad for 15° lens 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
<b>Image presentation</b>		
Viewfinder	N/A	800x480 pixels
<b>Measurement analysis</b>		
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

<b>Imaging performance</b>	
Resolution	640x480 pixels
Focal Plane array (FPA)	Uncooled microbolometer
Spectral range	7.8 to 14 µm
Image frequency	30 Hz
Focus	Manual / autofocus
<b>Image presentation</b>	
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



## General

<b>Measurement</b>	
Accuracy	± 2 °C or ± 2% of reading
Temperature range, standard	-40 °C to +150 °C, +100 °C to +650 °C
Temperature range, optional	+300 °C to +2,000 °C
<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
Humidity alarm	1 humidity alarm including dew point alarm
Insulation alarm	1 insulation alarm
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>	
Digital	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® stored with the image
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 M0297 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
Bluetooth®	Communication with smart phone, PC tablet, headset and external sensors
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	> 3 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 60068-2-30/24h, 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
Lens 25°	25° x 19° / 0.3 m
<b>Standard package</b>	
FLIR T620bx / T640bx: Hard transport case, thermal imaging camera with lens, Battery (2), Battery charger, Large eyecap, Tripod adaptor, Neck strap, Lens cap, Bluetooth®	