

FLIR T600-Series



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

The FLIR T600-Series offer a crisp thermal image of 640 x 480 pixels on which the smallest of details can be seen. The T600-Series is flexible, can meet your every need and has extensive communication possibilities.



Up to 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 0.035°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. Field of view adapts to IR-lens.



Laser Pointer

The position of the laser pointer is highlighted on the thermal 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 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.



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 T600-Series is very easy to use.



Sketch annotations

Include a sketch with the thermal 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.



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.



Compass

The direction in which the camera is looking is automatically added to every image.

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



Connect to smartphone or tablet via Wi-Fi, using the FLIRTools mobile app (Apple iOS and Android) for processing and sharing results as well as for remote control.

expert and professional



FLIR T600-Series model comparison

FLIR T620	FLIR T640
Thermal sensitivity: <40 mk @ +30°C	Thermal sensitivity: <35 mk @ +30°C
Temperature range: -40°C up to +650°C	Temperature range: -40°C up to +2,000°C
1-4x continuous, digital zoom	1-8x continuous, digital zoom
MSX®	MSX®
	Live line profile
	Image sketch on thermal and visual
	Continuous auto-focus
	Viewfinder
	Measurement presets



The innovative FLIR MSX® feature produces an image more rich in every detail than ever before.

FLIR T600-Series

Technical specifications

Camera specific



FLIR T620



FLIR T640

Imaging performance			
Thermal sensitivity (at 30 °C)	<40 mK @ 30 °C		<35 mK @ 30 °C
Digital zoom	1-4x continuous		1-8x continuous
Focus	Automatic (one shot) or manual		Continuous, one shot or manual
Image presentation			
MSX®	IR image with MSX®		IR image with MSX®
Viewfinder	N/A		800x480 pixels
Image annotation			
Image sketch	N/A		On IR and visual image
Measurement			
Temperature range, standard	-40 °C to +150 °C +100 °C to +650 °C		-40 °C to +150 °C +100 °C to +650 °C +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		Yes
Automatic hot/cold detection	Max/Min temp. value and position shown within box, circle		Max/Min temp. value and position shown within box, circle or on a line

General

Imaging performance		
IR-resolution	640x480 pixels	
Spatial resolution	0.69 mrad for 25° lens 0.41 mrad for 15° lens 1.30 mrad for 45° lens	
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	
Focal Plane array (FPA)	Uncooled microbolometer	lens needs to be specified when ordering
Spectral range	7.5 to 14 µm	
Image frequency	30 Hz	
Image presentation		
Display	4.3" superbright touchscreen LCD 800x480 pixels	
Image modes	IR-image, Visual image, 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	



* After product registration on www.flir.com

Measurement	
Accuracy	± 2 °C or ± 2% of reading
Measurement analysis	
Spotmeter	10
Area	5 Max/Min/Average value within box or circle
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
Measurement function alarm	Audible/visual alarms (above/below) on any selected measurement function
Set-up	
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	✓
Report generation	
Instant Report in camera	Automatic generation of PDF report based on selected images direct in camera
Image storage	
Type	IR/visual images; simultaneous storage of visual and IR images Visual and IR-images automatically grouped together.
Format	Standard JPEG - including measurement data on SD memory card
Periodic image storage	7 seconds to 24 hours (IR) 14 seconds to 24 hours (IR and visual)
Digital camera	
Built-in digital camera	5 Mpixel incl. lamps
Digital camera, FOV match	Adapts to the IR lens
Laser LocatIR	
Laser	Semiconductor AlGaInP diode laser, Class 2 - position is displayed on the IR image
Laser alignment	Laser position shown on IR-image
Image annotation	
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 M0297 or Extech clamp meter EX845
Compass	Camera direction automatically added to every image
Video streaming /recording	
Radiometric IR video streaming	Full dynamic to PC using USB
Non radiometric IR-video/visual 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
Update of camera	
Update of camera to latest version	Update of camera from PC running FLIR Tools
Data communication interfaces	
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
Geographic Information System	
Built-in GPS	Location data automatically added to every image for referencing on WEB maps
Power	
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
Environmental specifications	
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
Physical characteristics	
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
Lenses optional	
Tele lens, 15°	15° x 11° / 0.5 m
Wide angle lens 45°	45° x 34° / 0.15 m
Standard package	
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, Printed documentation, FLIR Tools™ Download card, Memory card with adaptor, Power supply incl. multiplugs, USB cable, User documentation CD-ROM, HDMI cable (2)	

FLIR T600-Series



Accessories

Power



Cigarette lighter adaptor kit, 12 V DC, 1.2 m [1910490]
Can be used to power the camera from the cigarette lighter socket in a car.



2-bay battery charger, incl. power supply with multi-plugs [T198126]
This 2-bay battery charger is used for charging FLIR Systems' camera batteries.



Battery [T198055]
Extra battery that will allow you to spend extra time in the field doing inspections.



Power supply incl. Multi-plugs [T910814]
This power supply is used when powering the camera from the mains supply or to charge the batteries. It comes with different types of plugs.

Storage



Memory card SD [T911173]
Capture images on the go with your camera.

Cables



USB cable Std-A <-> Mini-B [1910423]
USB cable to connect the camera with a computer, using the USB protocol.



HDMI to DVI cable, 1.5 m [T910930]
Can be used to show the high resolution images of the camera on a screen with DVI input.



HDMI to HDMI cable, 1.5 m [T910891]
Can be used to show the high resolution images of the camera on a screen with HDMI input.

Headsets



Bluetooth® headset [T197771]
Headset with Bluetooth® for wireless connection with the thermal imaging camera, including microphone.

Extended measurement ranges

High temperature option +300°C up to +2,000°C [T197896]
Allow to measure temperatures of up to +2,000°C with the camera.

Lenses



Lens 88.9 mm, 7° field of view incl. case [\[T198166\]](#)
The 7° lens is a popular lens accessory and provides 3.6x magnification compared to the standard lens. Ideal for small or distant targets



Lens 41.3 mm, 15° field of view incl. case [\[T197914\]](#)
The 15° lens is a popular lens accessory and provides 1.7x magnification compared to the standard lens. Ideal for small or distant targets such as overhead power lines.



Lens 24.6 mm, 25° field of view incl. case [\[T197922\]](#)
The standard 25° lens is suitable for the majority of applications.



Lens 13.1 mm, 45° field of view incl. case [\[T197915\]](#)
This wide angle lens has a field of view almost double that of the standard 25° lens. Perfect for wide or tall targets or when working in confined areas.



Lens 6.5 mm, 80° field of view incl. case [\[T198065\]](#)
This wide angle lens has a field of view of more than 3 times that of the standard lens. Ideal for shooting images of large objects from a short distance.



Close-up lens 32 mm (fits 25° lens) incl. case [\[T198059\]](#)
The 32 mm lens provides a 2.9X magnification and is ideal for development purposes like looking at PCB's or small electronic components. Can only be mounted on 25° lens.



Close-up lens 64 mm (fits 25° lens) incl. case [\[T198060\]](#)
The 64 mm lens provides a 5.8X magnification and is ideal for development purposes like looking at PCB's or small electronic components. Can only be mounted on 25° lens.



Close-up lens, 1.5x with case [\[T198066\]](#)
For R&D usage or development purposes

Miscellaneous



Hard transport case [\[T197924\]](#)
Rugged, watertight plastic shipping case. Holds all items securely. The case can be locked with padlocks and features a breather valve to prevent pressure build-up in airplane cargo holds.



Pouch [\[T911048\]](#)
Soft pouch to protect the camera. Possible to attach to tool belt.



Tool belt [\[T911093\]](#)
Tool belt for thermal imaging camera pouches.



Tripod adapter [\[T197731\]](#)
Tripod adapter, necessary to be able to mount the camera on a tripod.



Neck strap [\[1124544\]](#)
Ties the camera around your neck so that it is protected against falling.



Large eyecap [\[T197883\]](#)
Can be mounted on the viewfinder.



Stylus pen [\[T197753\]](#)
Can be used to operate the touch screen.



Extech Clamp meter EX845 [\[T910972\]](#)
Can be connected to the thermal imaging camera through MeterLink™



Extech Moisture meter MO297 [\[T910973\]](#)
Can be connected to the thermal imaging camera through MeterLink™