

# FLIR T-Series Thermal Imaging Cameras



## T-Series

High Performance

Now with the Highest Quality 640 × 480 Detector  
and FLIR Viewer Wi-Fi Connectivity

Flexible, Ergonomic Design Makes It Easy to  
Capture Images from Any Angle

## Get the Shot Without the Stress

If you've ever spent hours straining to look for a bus duct problem with a point-and-shoot thermal camera or hunting for loose connections with one down at floor level, you know the toll it can take on your neck, shoulders, and back. Fortunately, with FLIR T-Series you don't have to work that way anymore.



## Work Comfortably

T-Series features an ergonomically-designed rotating optical block that tilts up or down along its 120-degree range of motion while keeping the touchscreen display right in front of you. Work in comfort and safety as you view targets above your head, below your knees, or around corners.

T-Series. The best way to capture the best thermal images from any angle.

Now with more resolution options.

High Performance  
Thermal Imagery:

• **T300/400** -

**76,000 pixels**

*Excellent accuracy and sensitivity.*

• **T620/640** -

**307,200 pixels**

*Best IR resolution in the industry.*

## Unmatched Warranty

FLIR's exclusive Double Diamond warranty covers the whole camera for 2 years, the battery for 5 years, and the detector for 10 full years. No one but FLIR can offer peace of mind like this because no one but FLIR builds their own detectors.



## T300 & T400 Features

Affordable, feature-rich T-Series infrared cameras offer maximum efficiency and flexibility for professional thermographers with demanding workloads.

**Superior IR Images** – Razor-sharp thermal images with up to 76,800 pixels (320 × 240) for greater accuracy from farther away

**High Thermal Sensitivity** – Clear, low-noise images that reveal subtle problems and temperature differences

**Visible Light Digital Camera with Video Lamp** – 3.1 megapixel resolution with video lamp provides clear images in any lighting conditions

**Rotating Optical Block** – Ergonomic lens system rotates up to 120° for easy, comfortable viewing when capturing images from challenging angles

**New! Wi-Fi Connectivity** – Send images and data to mobile devices like iPad®, iPhone®, and iPod touch® with FLIR Viewer so you can analyze and share critical information faster than ever

**Advanced Optics** – The widest range of optics to fit the view and spot size you need for your application; built-in 24° and optional 6°, 15°, 45°, 90°, and microscope lenses available

**Laser Pointer** – Pinpoint a reference spot and align marker to image for precise detection

**Temperature Measurement Precision** – Accuracy calibrated within 2% or  $\pm 2^\circ$  to meet the standard you can always trust FLIR to deliver

**Scalable P-i-P and Thermal Fusion** – Display both the thermal and visible images onscreen for easy identification and control the size of the Picture-in-Picture window

**Delta T & Multiple Measurement Spots** – Powerful tools include differential temperature, 5 measurement spots, 5 box areas, isotherm, and auto hot/cold measurements for detailed analysis

**MeterLink** – Measure more than temperature with your camera by connecting a MeterLink-enabled clamp or moisture meter directly to the T-Series for annotating thermal images

**Annotation** – Add voice and text comments to images or use the touchscreen to sketch notes

**InstantReport** – Generate a professional PDF document in the camera without an external computer and complete the job before you leave the site



3.5" Touchscreen LCD



Digital Camera with Lamp



Rotating Optical Block



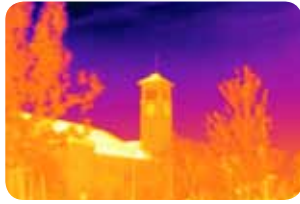
Connect to iPhone, iPad, or iPod touch via Wi-Fi



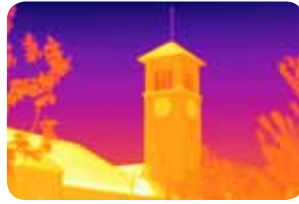
Thermal Fusion



90° Lens



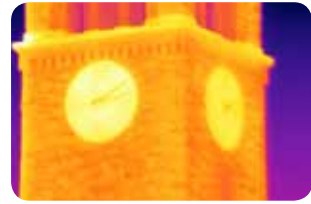
45° Lens



24° Lens



15° Lens



6° Lens

3.1 MP Camera with Lamp & Laser Pointer for Visible Light Reference Pictures



3.5" LCD with Stylus for Easy Touchscreen Access to Images and Camera Tools



Connect to iPhone, iPad, or iPod touch over Wi-Fi with FLIR Viewer for fast image transfer, analysis, and sharing

Rotating Optical Block for Comfortable Operation & Viewing Angles

## T300

### Includes:

- High quality 76,800 pixel (320 x 240) resolution
- Wi-Fi to mobile devices
- Thermal sensitivity of 0.05°C
- 3.1 MP visible light camera with lamp
- Temperature calibration standard at 650°C
- Difference temperature function
- 4x digital zoom
- Wide variety of lens options
- 3.5" Touchscreen LCD
- Record 60 seconds of voice comments on each image
- Picture-in-Picture to superimpose thermal images
- Standard JPEG images with full temperature data
- QuickReport analysis & reporting software
- Standard NTSC video output
- Copy images to USB thumb drive
- Realtime video frame rate

## T400

### Additional Features:

- 8x digital zoom
- On board MPEG4 digital video recording
- High temp calibration standard at 1,200°C
- Periodic image storage every 10 sec up to 24 hrs
- Panorama function stitches multiple images together
- Annotation with text, sketch, and image marker
- Fusion blending of thermal and visual light images
- Temperature screening with audible alarm
- InstantReport built-in PDF report generation



## T620 & T640 Features

The exciting, new T620 and T640 move to the head of the class in high performance cameras, providing the highest infrared resolution in the T-Series line and a fresh, long list of impressive features.

**New! Highest IR Resolution in its Class** – Crisp thermal images with up to 307,200 pixels (640 × 480) for greater accuracy and readability from longer 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 provides ~25% bigger display area with bright, sharp images, clear graphics, an intuitive interface, and efficient on-screen report generation

**New! Viewfinder** – Built-in color viewfinder on T640 makes thermal and visible images clearer and easier to see in brightly lit environments

**New! Wi-Fi Connectivity** – Send images and data to mobile devices like an iPhone, iPad, or iPod touch with FLIR Viewer and share critical information quickly

**More Measurement Tools** – Report all the details with 10 measurement spots, 5 box areas, Delta T differential temperature, isotherm, and auto hot/cold markers

**Temperature Measurement Precision** – Accuracy calibrated to within 2% or  $\pm 2^\circ$  to meet the standard you can always trust FLIR to deliver

**High Thermal Sensitivity** – Detailed, low-noise imaging to detect the smallest temperature differences and subtle problems

**Rotating Optical Block** – Popular T-Series design allows 120° lens rotation 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 P-i-P** – Blend thermal and visible light images onscreen and scale picture-in-picture overlays to identify targets and locations easily



4.3" Touch-Screen LCD



5 MP Digital Camera with Lamp



Rotating Optical Block



Connect to iPhone, iPad, or iPod touch via Wi-Fi



T640 Color Viewfinder



T640 Viewfinder Makes Working in Bright Environments Even Easier

Large Touchscreen Puts Fast Tools at Your Fingertips

5 MP Visible Light Camera for Reference Pictures

Joystick & Large Backlit Buttons for Gloved Operation



Rotating Optical Block for Comfortable Viewing from Tough Angles



Connect to iPhone, iPad, or iPod touch over Wi-Fi with FLIR Viewer for fast image transfer, analysis, and sharing

## T620

### Includes:

- Highest quality 307,200 pixel (640 x 480) resolution
- 5 MP visible light camera with lamp
- 4.3" bright touchscreen LCD
- Connect to iPhone, iPad, or iPod touch via Wi-Fi
- Bluetooth to MeterLink
- Temperature calibration standard at 650°C
- Thermal sensitivity of 0.05°C
- 4x digital zoom
- Voice, text, and sketch annotation
- P-i-P and fusion to superimpose thermal images
- MPEG4 non-radiometric IR or daylight video recording to SD card
- Realtime video frame rate
- FLIR Tools software for camera updates
- InstantReport

## T640

### Additional Features:

- Built-in color viewfinder for easier viewing in bright environments
- Thermal sensitivity of 0.04°C
- Temperature range standard to 2,000°C
- 8x digital zoom
- Measurement presets
- Line profile

# Imaging Specifications



	T300	T400	T620	T640
<b>Camera Specifications</b>				
Resolution	320 x 240	320 x 240	640 x 480	640 x 480
Total Pixels	76,800	76,800	307,200	307,200
Thermal Sensitivity	<0.05°C	<0.05°C	<0.05°C	<0.04°C
Accuracy	+/-2% or 2°C	+/-2% or 2°C	+/-2% or 2°C	+/-2% or 2°C
Temperature Range	-4°F to 1,202°F (-20°C to 650°C)	-4°F to 2,192°F (-20°C to 1,200°C)	-40°F to 1,202°F (-40°C to 650°C)	-40°F to 3,632°F (-40°C to 2,000°C)
Hi-Temp Option to 1,200°C	x	Standard		
Lens Options	Standard: 25° x 19°; Optional: 90°, 45°, 15°, 6°; Close-up: 100 μ, 50 μ		Standard: 25°; Optional: 45°, 15°, 100 μ, 50 μ	
Zoom	2x Continuous Digital	8x Continuous Digital	4x Continuous Digital	8x Continuous Digital
Focus	Auto & Manual		Auto & Manual	
Uncooled Microbolometer	x	x	x	x
Color LCD Touchscreen	3.5"	3.5"	4.3" Bright Touch	4.3" Bright Touch
Color Viewfinder				x
Video Camera w/Lamp	3.1 MP	3.1 MP	5 MP	5 MP
Fusion	PIP Scalable	PIP Scalable & Moveable	PIP Scalable & Moveable	PIP Scalable & Moveable
Laser Spot	x	x	x	x
Video Out	Composite	Composite	HDMI/DVI	HDMI/DVI
Frame Rate	30 Hz		30 Hz	
<b>Analysis</b>				
Professional‡	x	x	x	x
Delta T	x	x	x	x
<b>Annotation</b>				
Voice (60 seconds)	x	x	x	x
Text & Sketch		x	x	x
Panorama		x		
Periodic Image Storage		x	x	x
<b>File Storage</b>				
Radiometric JPG (>1,000)	x	x	x	x
MPEG4 Video Recording		x	x	x
<b>Other</b>				
Joystick Control			x	x
Wi-Fi to Mobile Devices	x	x	x	x
MeterLink	x	x	x	x
QuickReport	x	x		
InstantReport		x	x	x
FLIR Tools			x	x
ThermaTrak	x	x		
Battery Type/Op Time	Li-Ion/>4 hours	Li-Ion/>4 hours	Li-Ion/>3 hours	Li-Ion/>3 hours
Weight (including battery)	1.94 lb (0.88 kg)		2.87 lb (1.3 kg)	

‡ Professional analytics tools include DeltaT functionality and multiple movable spot



## Wi-Fi Connectivity to Mobile Devices

Download the new FLIR Viewer app from the Apple Store to your iPad, iPhone, or iPod touch and link to the cameras via Wi-Fi. Transfer images to your mobile device, use it to add measurement spots, re-adjust span and level, change palettes, create reports, and show or email findings to decision makers easily. It's an efficient way to make a big impact.



## MeterLink™

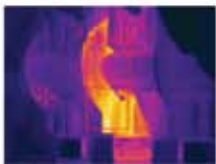
Measure more than temperature with your camera and be sure you're getting critical electrical load readings so you can make the right call. Quantify the severity of electrical problems with MeterLink-enabled clamp meters that use Bluetooth wireless communication to send data to the FLIR camera for annotation on stored thermal images. Contact FLIR to learn about other tools that connect with MeterLink.




## InstantReport

Create professional reports on board your camera with InstantReport. FLIR's analysis software has always offered professional results and been easy to use. Now, create reports without a PC! InstantReport includes thermal and visual images along with your measurements and analysis tools, and text & sketch annotations, in a standard PDF document that's easy to share right from the touchscreen.

Thermogram 2010-07-21 10:47 AM



building 18 - electrical



Measurements	
Spot 1	77.3°C
Area 1 Max	217.7°C
Ar1max-Sp1	140.4°C

DC	08.5A
DC	08.5A

Parameters	
Emissivity	0.88
Ref temp	20.0°C
Obj dist	1.0m
FOV	25°

## Infrared Training Center

Get the most out of your FLIR investment and advance your career with world-class instruction through the Infrared Training Center. An ITC certificate is written proof of your expertise in operating your camera and interpreting the thermal information it provides.

**For full course descriptions, updated schedules, and more information, visit [www.infraredtraining.com](http://www.infraredtraining.com) or call 1.866.872.4847.**



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