

TECHNICAL DATA

# Fluke Ti480 Infrared Camera



## Key features

- High resolution, 640 x 480 thermal imaging camera with MultiSharp™ Focus
- Delivers 4x the pixel data with SuperResolution to create a 1280 x 960 resolution image
- Captures an instant in-focus image of designated target with LaserSharp® Auto Focus
- Presents a clear, accurate image focused throughout the field of view with MultiSharp™ Focus
- Saves time by wirelessly syncing images directly from your camera to the Fluke Connect® system
- Provides context for the visual and infrared details all in one precisely blended or picture-in-picture image with IR-Fusion® technology
- Includes backlit ruggedized LCD capacitive Captures additional digital images to show location or additional site details with IR-PhotoNotes™ annotations
- Digitally documents critical information along with the infrared image using IR-PhotoNotes™ or voice annotation
- Monitors processes with video recording, video streaming, and remote control
- Works with optional pre-calibrated lenses: 2x telephoto, and wide angle
- Measures temperatures from -20°C to +800°C (-4°F to +1472°F)
- Highlights areas that are outside your pre-set "normal" temperature ranges with color alarms
- Features one-handed pistol-grip for quick, point-and-shoot troubleshooting
- Includes Fluke Connect® SmartView® desktop software to optimize thermal images, perform analytics, quickly generate customizable reports, and export images to the format of your choice in the cloud

## Product overview: Fluke Ti480 Infrared Camera

**Fluke Ti480 Infrared Camera delivers stunning 640 x 480 resolution images at surprising affordability.**

With the Fluke Ti480, users can perform thermal imaging inspections with more confidence and faster results than ever

before. It is a rugged, superbly engineered pistol grip thermal imaging camera that delivers 640 x 480 resolution and stands up to the rigorous demands of thermal inspections in harsh environments.

### More ways to optimize focus

The Ti480 offers multiple features to optimize focus and ensure that you get more accurate temperature information. MultiSharp™ Focus delivers images automatically focused throughout the field of view even if you start from a completely blurry target. The camera takes multiple images and combines them to give you clear, accurate focus on targets near and far. Simply point and shoot.

For single targets, LaserSharp® Auto Focus delivers instant focus at the push of a button. The built-in laser distance meter instantly calculates and displays the distance to your designated target, and the focus engine immediately adjusts the focus.

Better still, the Ti480 brings SuperResolution that provides 4x the pixel data of the standard mode to create a 1280 x 960 image so you can see even more detail.

### Includes powerful easy-to-use Fluke Connect® SmartView® desktop software.

Fluke Connect SmartView desktop software is a comprehensive analysis and reporting software. It makes it easier than ever to optimize thermal images, perform analytics, generate quick, customizable, robust reports, and export images to the format of your choice in the cloud. You can also wirelessly sync images directly from your Ti480 camera to the Fluke Connect® App on your smartphone. You can also live stream the camera display to your smartphone or PC and remotely control the camera. You can also attach captured images to an asset record or work order so you can access maintenance records simultaneously at the inspection site and from the office or an off-site location.

## Specifications: Fluke Ti480 Infrared Camera

Key features	
IFOV with standard lens (spatial resolution)	0.93 mRad, D:S 1065:1
Detector resolution	640 x 480 (307,200 pixels) or 1280 x 960 with SuperResolution
SuperResolution	Yes, on camera and in software. Captures and combines 4x the data to create a 1280 x 960 image
MultiSharp™ Focus	Yes, focused near and far, throughout the field of view
LaserSharp® Auto Focus	Yes, for consistently in-focus images. Every. Single. Time.
Laser distance meter	Yes, calculates distance to the target for precisely focused images and displays distance on screen
Advanced manual focus	Yes
Ruggedized touchscreen display	3.5 inch (landscape) 640 x 480 LCD
Rugged, ergonomic design for one-handed use	Yes
Digital zoom	2x and 4x
Pre-calibrated Lenses	wide angle, 2x telephoto, 4x telephoto and 25 micron/macro

### Temperature measurement

Temperature measurement range (not calibrated below -10 °C)	≤ -20 °C to +800 °C (-4 °F to 1472 °F)
Accuracy	±2 °C or 2% (at 25 °C nominal, whichever is greater)
Thermal sensitivity (NETD)*	≤ 0.05 °C at 30 °C target temp (50 mK)
On-screen emissivity correction	Yes (both value and table)
On-screen reflected background temperature compensation	Yes
On-screen transmission correction	Yes
Live line marker	Yes
*Best possible	

### Wireless connectivity

To PC, iPhone® and iPad® (iOS 4s and later), Android™ 4.3 and up, and WiFi to LAN (where available)

Fluke Connect® app compatible	Yes, connect your camera to your smartphone, and images taken automatically upload to the Fluke Connect app for saving and sharing
Fluke Connect Assets optional software	Yes, assign images to assets and create work orders. Easily compare measurement types - whether mechanical, electrical or infrared images - in one location.
Fluke Connect Instant Upload	Yes, connect your camera to your building's WiFi network, and images taken automatically upload to the Fluke Connect system for viewing on your smartphone or PC
Fluke Connect tool compatible	Yes, connects wirelessly to select Fluke Connect enabled tools and displays measurements on camera screen. Five simultaneous connections supported.
Fluke Connect SmartView desktop software	Yes

### IR-Fusion® technology

Adds the context of the visible details to your infrared image

AutoBlend™ mode	Min, Mid, Max IR plus full visible on camera; continuously variable in software
Picture-In-Picture (PIP)	Yes
Built-in digital camera (visible light)	5 MP

### Lenses

Standard lens	IFOV (spatial resolution)	0.93 mRad, D:S 1065:1
	Field of view	34 °H x 24 °V
	Minimum focus distance	15 cm (approx. 6 in)
	IR-Fusion® technology	Picture-in-picture and full screen

Optional 2x telephoto smart lens	IFOV	0.46 mRad. D:S is 2145:1
	Field of view	17 °H x 12 °V
	Minimum focus distance	45 cm (approx. 18 in)
	IR-Fusion® technology	Picture-in-picture and full screen
Optional wide-angle smart lens	IFOV	1.85 mRad. D:S is 525:1
	Field of view	68 °H x 48 °V
	Minimum focus distance	15 cm (approx. 6 in)
	IR-Fusion® technology	Full screen

### Level and span

Fast auto toggle between manual and auto modes	Yes
Fast auto-rescale in manual mode	Yes
Minimum span (in manual mode)	2.0 °C (3.6 °F)
Minimum span (in auto mode)	3.0 °C (5.4 °F)

### Data storage and image capture

Extensive memory options	Removable 4 GB micro SD memory card, 4 GB internal flash memory, save to USB flash drive capability, upload to Fluke Cloud™ for permanent storage
Image capture, review, save mechanism	One-handed image capture, review, and save capability
Image file formats	Non-radiometric (.bmp) or (.jpeg) or fully-radiometric (.is2); no analysis software required for non-radiometric (.bmp, .jpg and .avi) files
Memory review	Thumbnail and fullscreen review
Software	Fluke Connect SmartView software - full analysis and reporting software and Fluke Connect system
Export file formats with Fluke Connect SmartView software	Bitmap (.bmp), GIF, JPEG, PNG, TIFF
Voice annotation	60 seconds maximum recording time per image; reviewable playback on camera, optional bluetooth headset available but not required
IR-PhotoNotes™	Yes (5 images)
Text annotation	Yes
Video recording	Standard and radiometric
File formats video	Non-radiometric (MPEG - encoded .AVI) and fully-radiometric (.IS3)
Remote display viewing	Yes, see the live stream of the camera display on your PC, smartphone, or TV monitor. Via USB, WiFi hotspot, or WiFi network to Fluke Connect SmartView software on a PC; via WiFi hotspot to the Fluke Connect app on a smartphone; or via HDMI to a TV monitor
Remote control operation	Yes, through Fluke Connect SmartView software or Fluke Connect mobile app
Auto capture (temperature and interval)	Yes

<b>Battery</b>	
Batteries (field-replaceable, rechargeable)	Two lithium ion smart battery packs with five-segment LED display to show charge level
Battery life	2-3 hours per battery (Actual life varies depending on settings and usage)
Battery charge time	2.5 hours to full charge
Battery charging system	Two-bay battery charger or in-imager charging. Optional 12 V automotive charging adapter
AC operation	AC operation with included power supply (100 V AC to 240 V AC, 50/60 Hz)
Power saving	User selectable sleep and power off modes

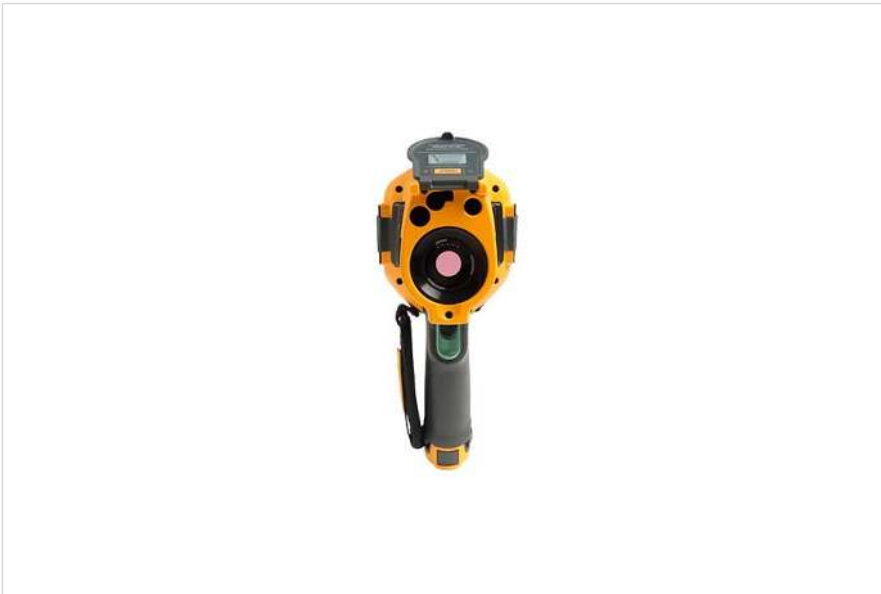
<b>Color palettes</b>	
Standard palettes	8: Ironbow, Blue-Red, High Contrast, Amber, Amber Inverted, Hot Metal, Grayscale, Grayscale Inverted
Ultra Contrast™ palettes	8: Ironbow Ultra, Blue-Red Ultra, High Contrast Ultra, Amber Ultra, Amber Inverted Ultra, Hot Metal Ultra, Grayscale Ultra, Grayscale Inverted Ultra

<b>General specifications</b>	
Frame rate	60 Hz or 9 Hz versions
Laser pointer	Yes
LED light (torch)	Yes
Color alarms (temperature alarms)	High temperature, low temperature, and isotherms (within range)
Center-point temperature measurement	Yes
Spot temperature	Hot and cold spot markers
User-definable spot markers	3 user-definable spot markers
Center box	Expandable-contractible measurement box with MIN-MAX-AVG temp display
Infrared spectral band	7.5 $\mu\text{m}$ to 14 $\mu\text{m}$ (long wave)
Operating temperature	-10 °C to +50 °C (14 °F to 122 °F)
Storage temperature	-20 °C to +50 °C (-4 °F to 122 °F) without batteries
Relative humidity	10% to 95% non-condensing
Safety	IEC 61010-1: Overvoltage category II, Pollution Degree 2
Electromagnetic compatibility	IEC 61326-1: Basic EM environment. CISPR 11: Group 1, Class A
Australian RCM	IEC 61326-1
US FCC	CFR 47, Part 15 Subpart B
Vibration	0.03 g <sup>2</sup> /Hz (3.8 g), 2.5 g IEC 68-2-6
Shock	25 g, IEC 68-2-29
Drop	Engineered to withstand 2 meter (6.5 feet) drop with standard lens
Size (H x W x L)	27.7 x 12.2 x 16.7 cm (10.9 x 4.8 x 6.5 in)
Weight (battery included)	1.04 kg (2.3 lb)



Enclosure rating	IEC 60529: IP54 (protected against dust, limited ingress; protection against water spray from all directions)
Warranty	Two-years (standard), extended warranties are available
Recommended calibration cycle	Two-years (assumes normal operation and normal aging)
Supported languages	Czech, Dutch, English, Finnish, French, German, Hungarian, Italian, Japanese, Korean, Polish, Portuguese, Russian, Simplified Chinese, Spanish, Swedish, Traditional Chinese, and Turkish

## Ordering information



### **FLK-Ti480 60 Hz**

Fluke Ti480 Infrared Camera 60 Hz

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Includes:

- Thermal imager with standard infrared lens
  - AC power supply and battery pack charger (including universal AC adapters)
  - Two, rugged lithium ion smart battery packs
  - USB cable
  - HDMI video cable
  - 4 GB micro SD card
  - Rugged, hard carrying case
  - Soft transport bag
  - Adjustable hand strap
  - Available by free download Fluke Connect® SmartView® desktop software and users manual
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### **FLK-Ti480 9 Hz**

Fluke Ti480 Infrared Camera 9 Hz

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Includes:

- Thermal imager with standard infrared lens
  - AC power supply and battery pack charger (including universal AC adapters)
  - Two, rugged lithium ion smart battery packs
  - USB cable
  - HDMI video cable
  - 4 GB micro SD card
  - Rugged, hard carrying case
  - Soft transport bag
  - Adjustable hand strap
  - Available by free download Fluke Connect® SmartView® desktop software and users manual
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### Preventive maintenance simplified. Rework eliminated.

Save time and improve the reliability of your maintenance data by wirelessly syncing measurements using the Fluke Connect® system.

- Eliminate data-entry errors by saving measurements directly from the tool and associating them with the work order, report or asset record.
- Maximize uptime and make confident maintenance decisions with data you can trust and trace.
- Access baseline, historical and current measurements by asset.
- Move away from clipboards, notebooks and multiple spreadsheets with a wireless one-step measurement transfer.
- Share your measurement data using ShareLive™ video calls and emails.

Find out more at [flukeconnect.com](http://flukeconnect.com)



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**Smart phone wireless service and data plan not included with purchase. Fluke Connect is not available in all countries.**

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