

Advanced Test Equipment Corp. www.atecorp.com 800-404-ATEC (2832)

# Your First Step to Professional Thermography



#### **Accurate Temperature Measurement**

Precision at your fingertips - Perfect focus for flawless temperature readings.

- Manual focus, ensures concise measurement at all distances.
- 49° wide angle shot, to always see the big picture. Help you infer the root of the thermal anomaly.
- 40mk thermal sensitivity, unveil subtle flaws. A damp spot never escapes your sight.

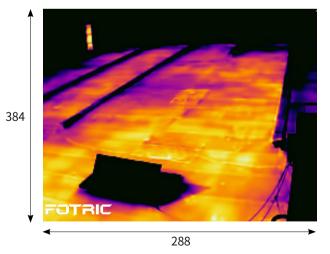


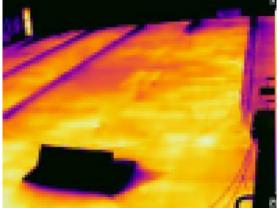
40mk thermal sensitivity reveal every anomaly

### **Superior Image Quality**

Image quality is more about aesthetics, but directly impacts the quality of your presentation.

- 384\*288 thermal pixels, presenting your findings with unprecedented clarity.
- Super resolution, boost the performance to expert level.
- TEF-Fusion 0~100% adjustable transparency. Select the best way present your finding.
- Touch span to highlight the anomaly against the environment.





Over 100000 pixels

Under 10000 pixels



#### **Robust and Intuitive Design**

A perfect combination of ruggedness ingenuity.

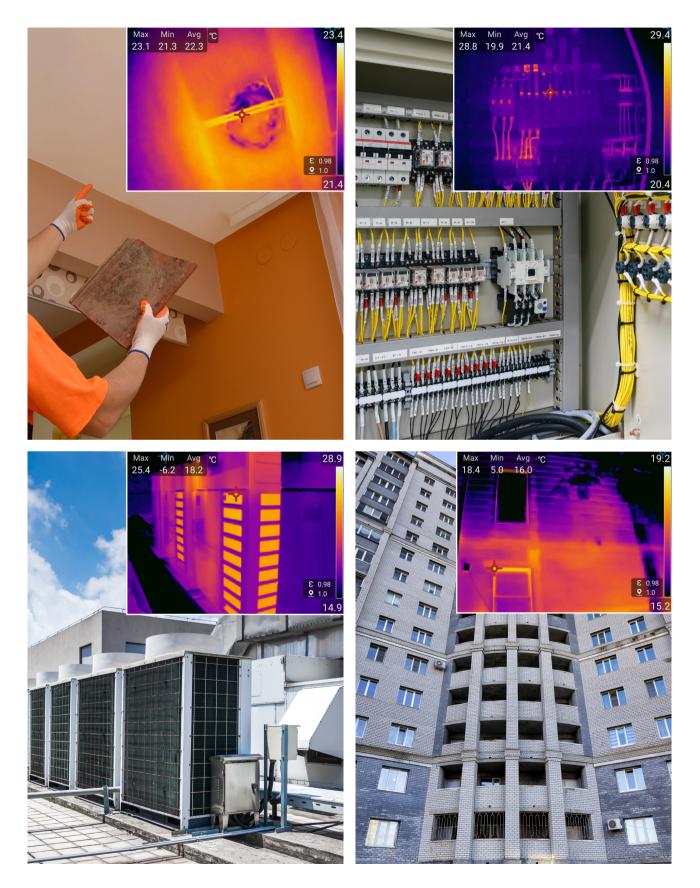
- Function shortcut button, tailor what the camera does to what you need.
- Spacious 3.5" LCD touch screen that enable both screen and button operation.
- 8MP industrial grade digital camera, enables flawless inspection result presentation.
- Dust and water resistant (IP54), made for durability and industrial adaptability.

#### **Unparallel Response Speed**

Your thermal camera should never slow you down. It's all about user experience.

- Powered by Android, it flows as smoothly as your smartphone.
- Fluent remote control with every operation system (Windows, MacOS, Android, IOS), so you can access your work from everywhere.

## Applications



# Specifications

Model	FOTRIC TK7
Core Parameters	
Thermal Resolution	384*288
Super Resolution(SR)	768*576
Thermal Sensitivity (NETD)	40mk(0.04° C)@30° C
Field of View (FOV)	49° x 36.8°
IFOV with Standard Lens (spatial resolution)	2.27 mrad
f-number (Focal length)	f7.5
Minimum Focus Distance	0.1m
Focus Mode	Focus free and manual focus
Spectral Range	~7-14µm
IR Detector Type	Uncooled FPA infrared detector
Detector Pitch	17µm
Al programmable Key	Support, for function shortcut
T-DEF ™	
Thermal and visible light Image fusion	Support, thermal and visible light image fusion, transparency 0% ~100%
Picture in Picture	Support, resizable and movable
TWB <sup>™</sup> Histogram thermal color display	Support
IRExplorer	Support, cross plaform data transmission and remote control system
Build-in Digital Camera	8 MP industrial camera
LED Flash Lamp	Support
Frame Rate	30Hz
Temperature Analysis	
Temperature Range	-20 ° C ~350° C
remperature nange	-20 C~350 C
Measurement Accuracy	$\pm 2^{\circ}$ C or 2%, whichever is greater (at 25 ° C ambient temperature)
Measurement Accuracy Measurement Parameters	±2 ° C or 2% , whichever is greater (at 25 ° C ambient temperature) Emissivity, Ambient Temp, Partial Emissivity, Reflected Temp, Relative Humidity, Distance, IR Window Compensation.
Measurement Accuracy Measurement Parameters Measurement Tools	±2 ° C or 2% , whichever is greater (at 25 ° C ambient temperature) Emissivity, Ambient Temp, Partial Emissivity, Reflected Temp, Relative Humidity,
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Measurement Accuracy Measurement Parameters Measurement Tools Delta T/Temperature Rise Image Display	±2°C or 2%, whichever is greater (at 25°C ambient temperature) Emissivity, Ambient Temp, Partial Emissivity, Reflected Temp, Relative Humidity, Distance, IR Window Compensation. Spot: 6; Line: 3; Rectangle/Circle: 4 Yes
Measurement Accuracy Measurement Parameters Measurement Tools Delta T/Temperature Rise	<ul> <li>±2 ° C or 2%, whichever is greater (at 25 ° C ambient temperature)</li> <li>Emissivity, Ambient Temp, Partial Emissivity, Reflected Temp, Relative Humidity, Distance, IR Window Compensation.</li> <li>Spot: 6; Line: 3; Rectangle/Circle: 4</li> </ul>
Measurement Accuracy Measurement Parameters Measurement Tools Delta T/Temperature Rise Image Display	±2°C or 2%, whichever is greater (at 25°C ambient temperature) Emissivity, Ambient Temp, Partial Emissivity, Reflected Temp, Relative Humidity, Distance, IR Window Compensation. Spot: 6; Line: 3; Rectangle/Circle: 4 Yes
Measurement Accuracy Measurement Parameters Measurement Tools Delta T/Temperature Rise Image Display Display Screen Image Mode Palettes	±2°C or 2%, whichever is greater (at 25°C ambient temperature) Emissivity, Ambient Temp, Partial Emissivity, Reflected Temp, Relative Humidity, Distance, IR Window Compensation. Spot: 6; Line: 3; Rectangle/Circle: 4 Yes 3.5 inch Touch Screen Thermal image、Visible light、Picture in Picture & T-DEF ™ 8 Palettes, 8 Inverted Palettes
Measurement AccuracyMeasurement ParametersMeasurement ToolsDelta T/Temperature RiseImage DisplayDisplay ScreenImage ModePalettesIsothermal Alarm/Color Alarm	±2°C or 2%, whichever is greater (at 25°C ambient temperature) Emissivity, Ambient Temp, Partial Emissivity, Reflected Temp, Relative Humidity, Distance, IR Window Compensation. Spot: 6; Line: 3; Rectangle/Circle: 4 Yes 3.5 inch Touch Screen Thermal image、Visible light、Picture in Picture & T-DEF ™ 8 Palettes, 8 Inverted Palettes Yes, Above, Below, and Interval
Measurement AccuracyMeasurement ParametersMeasurement ToolsDelta T/Temperature RiseImage DisplayDisplay ScreenImage ModePalettesIsothermal Alarm/Color AlarmTemperature Span Mode	±2°C or 2%, whichever is greater (at 25°C ambient temperature) Emissivity, Ambient Temp, Partial Emissivity, Reflected Temp, Relative Humidity, Distance, IR Window Compensation. Spot: 6; Line: 3; Rectangle/Circle: 4 Yes 3.5 inch Touch Screen Thermal image、Visible light、Picture in Picture & T-DEF ™ 8 Palettes, 8 Inverted Palettes Yes, Above, Below, and Interval Automatic; Manual; Touch
Measurement AccuracyMeasurement ParametersMeasurement ToolsDelta T/Temperature RiseImage DisplayDisplay ScreenImage ModePalettesIsothermal Alarm/Color AlarmTemperature Span ModeMinimum Temperature Span	±2°C or 2%, whichever is greater (at 25°C ambient temperature) Emissivity, Ambient Temp, Partial Emissivity, Reflected Temp, Relative Humidity, Distance, IR Window Compensation. Spot: 6; Line: 3; Rectangle/Circle: 4 Yes 3.5 inch Touch Screen Thermal image、Visible light、Picture in Picture & T-DEF ™ 8 Palettes, 8 Inverted Palettes Yes, Above, Below, and Interval
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Measurement AccuracyMeasurement ParametersMeasurement ToolsDelta T/Temperature RiseImage DisplayDisplay ScreenImage ModePalettesIsothermal Alarm/Color AlarmTemperature Span ModeMinimum Temperature SpanInfo DisplayMax and Min Point Tracing	±2°C or 2%, whichever is greater (at 25°C ambient temperature) Emissivity, Ambient Temp, Partial Emissivity, Reflected Temp, Relative Humidity, Distance, IR Window Compensation. Spot: 6; Line: 3; Rectangle/Circle: 4 Yes 3.5 inch Touch Screen Thermal image、Visible light、Picture in Picture & T-DEF ™ 8 Palettes, 8 Inverted Palettes Yes, Above, Below, and Interval Automatic; Manual; Touch Auto:3°C, Manual and Touch:2°C
Measurement AccuracyMeasurement ParametersMeasurement ToolsDelta T/Temperature RiseImage DisplayDisplay ScreenImage ModePalettesIsothermal Alarm/Color AlarmTemperature Span ModeMinimum Temperature SpanInfo DisplayMax and Min Point TracingDigital Zoom	±2°C or 2%, whichever is greater (at 25°C ambient temperature) Emissivity, Ambient Temp, Partial Emissivity, Reflected Temp, Relative Humidity, Distance, IR Window Compensation. Spot: 6; Line: 3; Rectangle/Circle: 4 Yes 3.5 inch Touch Screen Thermal image、Visible light、Picture in Picture & T-DEF ™ 8 Palettes, 8 Inverted Palettes Yes, Above, Below, and Interval Automatic; Manual; Touch Auto:3°C, Manual and Touch:2°C Max; Min; Avg; Measurement parameters
Measurement AccuracyMeasurement ParametersMeasurement ToolsDelta T/Temperature RiseImage DisplayDisplay ScreenImage ModePalettesIsothermal Alarm/Color AlarmTemperature Span ModeMinimum Temperature SpanInfo DisplayMax and Min Point TracingDigital ZoomStorage & Analysis	±2°C or 2%, whichever is greater (at 25°C ambient temperature) Emissivity, Ambient Temp, Partial Emissivity, Reflected Temp, Relative Humidity, Distance, IR Window Compensation. Spot: 6; Line: 3; Rectangle/Circle: 4 Yes 3.5 inch Touch Screen Thermal image、Visible light、Picture in Picture & T-DEF ™ 8 Palettes, 8 Inverted Palettes Yes, Above, Below, and Interval Automatic; Manual; Touch Auto:3°C, Manual and Touch:2°C Max; Min; Avg; Measurement parameters Support 1-8x, continuous
Measurement AccuracyMeasurement ParametersMeasurement ToolsDelta T/Temperature RiseImage DisplayDisplay ScreenImage ModePalettesIsothermal Alarm/Color AlarmTemperature Span ModeMinimum Temperature SpanInfo DisplayMax and Min Point TracingDigital ZoomStorage & AnalysisStorage Card	±2°C or 2%, whichever is greater (at 25°C ambient temperature) Emissivity, Ambient Temp, Partial Emissivity, Reflected Temp, Relative Humidity, Distance, IR Window Compensation. Spot: 6; Line: 3; Rectangle/Circle: 4 Yes 3.5 inch Touch Screen Thermal image、Visible light、Picture in Picture & T-DEF ™ 8 Palettes, 8 Inverted Palettes Yes, Above, Below, and Interval Automatic; Manual; Touch Auto:3°C, Manual and Touch:2°C Max; Min; Avg; Measurement parameters Support 1-8x, continuous TF card, 32GB
Measurement AccuracyMeasurement ParametersMeasurement ToolsDelta T/Temperature RiseImage DisplayDisplay ScreenImage ModePalettesIsothermal Alarm/Color AlarmTemperature Span ModeMinimum Temperature SpanInfo DisplayMax and Min Point TracingDigital ZoomStorage & AnalysisStorage CardCapture Mode	±2°C or 2%, whichever is greater (at 25°C ambient temperature) Emissivity, Ambient Temp, Partial Emissivity, Reflected Temp, Relative Humidity, Distance, IR Window Compensation. Spot: 6; Line: 3; Rectangle/Circle: 4 Yes 3.5 inch Touch Screen Thermal image、Visible light、Picture in Picture & T-DEF ™ 8 Palettes, 8 Inverted Palettes Yes, Above, Below, and Interval Automatic; Manual; Touch Auto:3°C, Manual and Touch:2°C Max; Min; Avg; Measurement parameters Support 1-8x, continuous TF card, 32GB Single frame capture and Time-lapse
Measurement AccuracyMeasurement ParametersMeasurement ToolsDelta T/Temperature RiseImage DisplayDisplay ScreenImage ModePalettesIsothermal Alarm/Color AlarmTemperature Span ModeMinimum Temperature SpanInfo DisplayMax and Min Point TracingDigital ZoomStorage & AnalysisStorage CardCapture ModeVideo Recording	±2 ° C or 2%, whichever is greater (at 25 ° C ambient temperature) Emissivity, Ambient Temp, Partial Emissivity, Reflected Temp, Relative Humidity, Distance, IR Window Compensation. Spot: 6; Line: 3; Rectangle/Circle: 4 Yes 3.5 inch Touch Screen Thermal image, Visible light, Picture in Picture & T-DEF ™ 8 Palettes, 8 Inverted Palettes Yes, Above, Below, and Interval Automatic; Manual; Touch Auto:3° C , Manual and Touch:2° C Max; Min; Avg; Measurement parameters Support 1-8x, continuous TF card, 32GB Single frame capture and Time-lapse MP4 video recording
Measurement AccuracyMeasurement ParametersMeasurement ToolsDelta T/Temperature RiseImage DisplayDisplay ScreenImage ModePalettesIsothermal Alarm/Color AlarmTemperature Span ModeMinimum Temperature SpanInfo DisplayMax and Min Point TracingDigital ZoomStorage & AnalysisStorage CardCapture ModeVideo RecordingFile Format	±2°C or 2%, whichever is greater (at 25°C ambient temperature) Emissivity, Ambient Temp, Partial Emissivity, Reflected Temp, Relative Humidity, Distance, IR Window Compensation. Spot: 6; Line: 3; Rectangle/Circle: 4 Yes 3.5 inch Touch Screen Thermal image、Visible light、Picture in Picture & T-DEF ™ 8 Palettes, 8 Inverted Palettes Yes, Above, Below, and Interval Automatic; Manual; Touch Auto:3°C, Manual and Touch:2°C Max; Min; Avg; Measurement parameters Support 1-8x, continuous TF card, 32GB Single frame capture and Time-lapse
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Voice Annotation	Support (120 seconds)
Text Annotation	Support
Tags	Support
Favorite	Support (filter favorite files)
PC Analysis and Report Software	AnalyzIR
Data Connection	
Wi-Fi Connection	Support 2.4GHz&5GH channel,Support 802.11a/b/g/n/ac
USB	USB Type-C type;USB 3.0 / 2.0 compliant,Support USB OTG
HDMI	Micro HDMI type, HDMI 1.4 compliant, Support 1080P imaging video streaming in 60Hz.
Bluetooth	Support
Remote Display	Support
Remote Control	Support
Power System	
Battery	Rechargeable Li-ion, 3.6V, 5000mAh
Battery Operation Time	≥ 4 hours
Battery Charging Time	3.5 hours to full-charge by battery dock. 2.5 hours to full-charge by connect to camera.
Charging Methods	Support battery dock adaptor and Type-C interface (compatible with cell phone charger).
Auto Screen-off	Support
General Specifications	
GPS	Yes
QR code Scanning	Support
Storage Card Interface	TF Card,Support Hot-plug.
Laser Pointer	Level 2; wavelength: 635nm; Power: <1mW
Operation Temperature	-20° C to 50° C
Storage Temperature	-40° C to 70° C, without battery
Relative Humidity	<95%RH (Operation and Storage)
Safety	SELV relay (GB 4943.1/IEC60950-1)
Electromagnetic Compatibility	GB/T17626.2/IEC 61000-4-2
Vibration	2g(GB/T 2423.10/IEC 60068-2-6)
Shock	25g(GB/T 2423.5/IEC 60068-2-27)
Collision	10g(GB/T 2423.6/IEC 60068-2-29) with packing
Drop	Designed for 2 meters drop test. (GB/T 2423.8/IEC 60068-2-32)
Dimension (mm)	243 * 95 * 142
Weight ( include battery)	800g
Enclosure Rating	IP54
Tripod Interface	UNC 1/4 -20 threaded hole for tripod
Warranty	1 year warranty on camera, 10 years for IR detector.
Recommended Calibration Cycle	2 years
Supported Languages	English, Spanish, Korean, Italian, Germany, Portuguese, Traditional Chinese
RoHS Compliant	Yes
Box Contents (Standard Configuration)	FOTRIC handheld thermal camera, documentations( certificate of quality, certificate of calibration, warranty card, packing list), user manual, USB-Type C cable, TF card TF card reader, power adaptor, 1 piece of battery.

# Innovation Excellence Integrity

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