

TOPDON®



# TC004 Lite

See More Than The Human Eye



Thermal Imager

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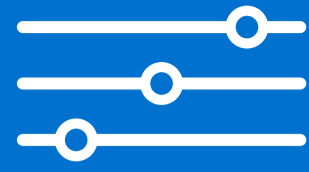


## TC004 Lite

Embark on a thermal journey like never before with TOPDON®'s TC004 Lite. Breaking down viewing barriers, this handheld thermal camera opens the door to the fascinating world of thermography for enthusiasts and professionals alike.

Elevate your visual experience with the 2.8" display which delivers stunning visuals at your fingertips. TC004 Lite is not just a device; it is an invitation to explore the unseen, offering a perfect balance of simplicity and sophistication.

Brief



# Specs

## Specs

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**Resolution:** 160x120 Pixels  
**Spectral Range:** 8~14  $\mu\text{m}$   
**Pixel Size:** 12  $\mu\text{m}$   
**NETD:** < 40 mK

**FOV:** 40°x30°  
**IFOV:** 4.62 mrad  
**Storage Capacity:** 512 MB  
**Battery:** 2,900 mAh

**Temperature Range:** -4° to 1,022°F (-20° to 550°C)  
**Zoom Level:** 1x/2x/4x  
**Measurement Accuracy:**  $\pm 2^\circ\text{C}$  or  $\pm 2\%$  of reading, the larger value shall prevail  
**Measurement Resolution:** 0.18°F (0.1°C)

## Parameters

**Dimensions:**

9.45" x 2.76" x 3.54" (240 x 70 x 90mm)

**Weight:**

18.3oz (520g)

**Screen Size:**

2.8" Display (7.1cm)

## Multilingual Support

**13 Languages:**

English, Chinese (Traditional), Korean, Japanese, French, Spanish, Italian, Portuguese, German, Polish, Russian, Hungarian, Turkish.



Brief

## Entry Level Thermal Resolution

See beyond the surface with a thermal resolution of 160 x 120 pixels.

TC004 Lite transforms thermal data into a canvas of insights, revealing the unseen and delivering precise image clarity.

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## Capture Every Detail

Tailor your observation with 1x / 2x / 4x zoom levels, offering unmatched viewing flexibility.

From a comprehensive overview at 1x to an intricate analysis at 4x, the TC004 Lite ensures every detail is captured.

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## Versatile Temperature Range

From chilly environments to high-temperature scenarios, TC004 Lite handles it all.

Ideal for multiple industries, TC004 Lite adapts to your every thermal need, visualizing a broad temperature range from -20°C to 550°C.

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## Wide Field of View

Enlarge your perspective with a wide 40° x 30° field of view.

Uncover comprehensive thermal details in a single glance, making inspections more thorough and efficient.

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Brief

## Compact and Portable

TC004 Lite is more than just a tool; it's your thermal companion on the go.

Its compact design and lightweight build make it effortless to carry, ensuring thermal exploration is never limited by location.

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Brief

## Extended Battery Life

Break free from constant recharging.

The 2900mAh battery grants TC004 Lite an impressive 15-hour runtime, enabling prolonged exploration throughout the day without interruption.

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Brief

## Robust Build

Built to endure real-world conditions, the TC004 Lite boasts an IP54 rating for water and dust resistance.

Designed to withstand drops of up to 2 meters, this device is protected from dust and humidity, ensuring a longer service life.

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# Functions

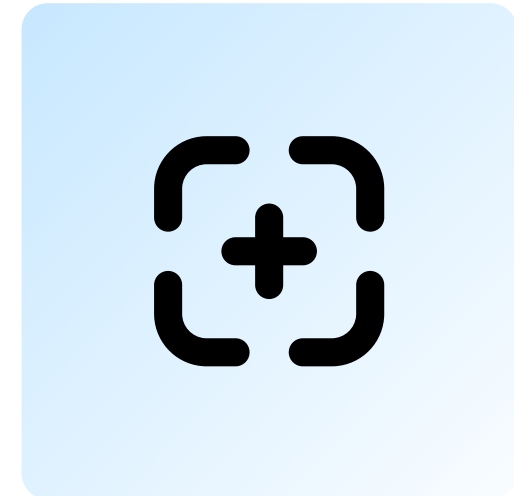
Specs

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Adjustable Emmissivity with Greater Accuracy



1x / 2x / 4x Zoom Levels



Wide Temp Ranging from -4°F to 1,022°F (-20°C to 550°C)



5 Color Palettes for More Possibilities

What's In The Box?



Tripod Mountable for a Stable View



High and Low Temperature Alarm



Monitor Temperature Change with Waveform Graphs

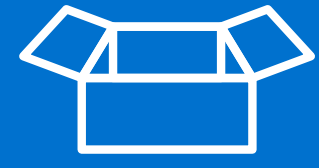


Long-lasting, 15 Hour Battery Life

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# What's In The Box?

Specs

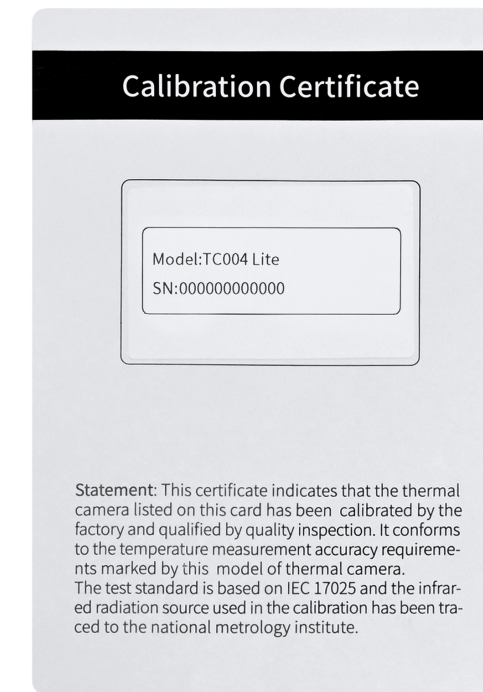
## Thermal Camera



## Storage Bag



## Calibration Certificate



## Product Certificate



Features

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## USB Data Cable



## What's In The Box?

## User Manual






## 5V3A Charger



Comp Chart

FAQs

MODEL	TC004 Lite	TC004	TC005
SPECIFICATIONS			
Display screen	2.8", 320 x 240 px screen	2.8", 320 x 240 px screen	2.8", 320 x 240 px screen
Storage	512MB storage	2GB RAM+16GB TF card	2GB RAM+16GB TF card
Battery type	Built-in 2900 mAh battery	Built-in 5000 mAh battery	Built-in 5000 mAh battery
Charging time	4h	4h	4h
Standby time	15h	12h	12h
Measuring range	-20~550°C (-4~1022°F)	-20~350°C (-4~662°F)	-20~550°C (-4~1022°F)
Temperature resolution	0.1°C	0.1°C	0.1°C
Measuring modes	Center spot/hot spot/cold spot	Center spot/hot spot/cold spot	Center spot/hot spot/cold spot
Measuring accuracy	±2°C or ±2%	±2°C or ±2%	±2°C or ±2%
Device weight(g)	520	520	520
Dimensions (mm)	240 x 70 x 90	240 x 70 x 90	240 x 70 x 90
Infrared light resolution	160*120	256*192	256*192
Image modes	Thermal Imaging	Thermal Imaging	Thermal Imaging, Dual Fusion, Visible, Image-in-Image
Pseudo color bar	5	5	7
Frame rate	25Hz	25Hz	25Hz
NETD	<40mK	<40mK	<40mK
Digital zoom	1/2/4	No	No
Tripod screw hole	Yes	Yes	Yes
Drop, impact, and vibration	2m, impact 25g (IEC 60068-2-27); vibration 2.5g (IEC60068-2-6)	2m, impact 25g (IEC 60068-2-27); vibration 2.5g (IEC60068-2-6)	2m, impact 25g (IEC 60068-2-27); vibration 2.5g (IEC60068-2-6)
Protection Rate	IP54	IP54	IP54
High/Low temperature alarm	Yes	Yes	Yes
Auto shutdown	5 min, 10 min, 20 min, OFF	5 min, 10 min, 20 min, OFF	5 min, 10 min, 20 min, OFF
Languages	13 languages: English, Traditional Chinese, Korean, Japanese, French, Spanish, Italian, Portuguese, German, Polish, Russian, Hungarian, and Turkish	13 languages: English, Traditional Chinese, Korean, Japanese, French, Spanish, Italian, Portuguese, German, Polish, Russian, Hungarian, and Turkish	13 languages: English, Traditional Chinese, Korean, Japanese, French, Spanish, Italian, Portuguese, German, Polish, Russian, Hungarian, and Turkish

Brief



# FAQs

Specs

## Question

Can the TC004 Lite detect objects underwater, through glass, or a wall?

Features

## Answer

No. Infrared detectors mainly detect 8 to 14 um long-wave infrared areas and can only be used to measure surface temperature.

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Functions

## Question

Why is there a lower temperature reading when the device gets far from the object and a higher reading when the device gets closer to the object?

What's In  
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## Answer

Infrared radiation weakens when passing through the atmosphere. The longer the distance, the greater the reduction. Thus, the accuracy of temperature measurement at a distance will decrease.  
To ensure the accuracy of your measurements, go to My Profile > Temperature Correction > Distance to Spot, and input the actual distance (max: 5 meters) to get the corrected temperature.

Comp Chart

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## FAQs

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### Question

Why is the measured temperature not precise?

Features

### Answer

The temperature resolution of TC004 Lite is  $\pm 2\%$ . The TC004 Lite provides a normal temperature range of  $-4$  to  $302^{\circ}\text{F}$  ( $-20$  to  $150^{\circ}\text{C}$ ), and a high temperature range of  $302^{\circ}$  to  $1022^{\circ}\text{F}$  ( $150$  to  $550^{\circ}\text{C}$ ). Please select the corresponding range in the app before measuring.

Functions

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### Question

What external factors will affect the infrared temperature measurement?

What's In  
The Box?

### Answer

**The following factors will have an impact on the measurement results:**

- a) Emissivity of the object surface.
- b) Ambient temperature: The object will reflect the infrared rays emitted by surrounding objects, which affects the temperature measurement of the object itself.
- c) Atmospheric temperature: The atmosphere itself also emits infrared rays.
- d) Atmospheric transmittance: the infrared rays emitted by the object are attenuated in the atmosphere.
- e) Distance: the longer the distance, the greater the attenuation of the infrared rays emitted by the object in the atmosphere.

Comp Chart

FAQs





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