TOPDON®

TCView TC001

The Dark Has No Secrets

Thermal Imager

Contents

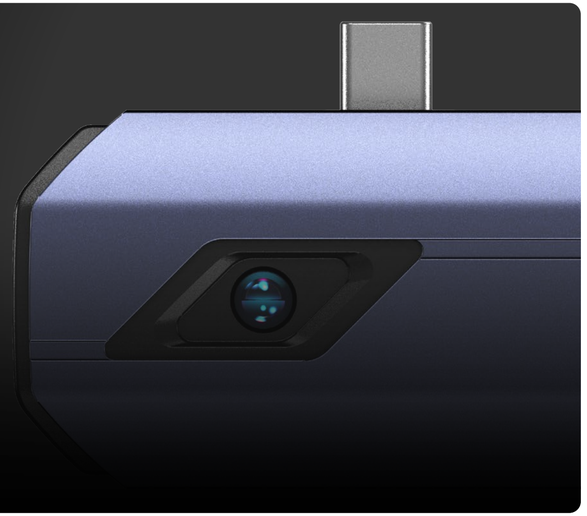
TCView TC001

TOPDON’s TC001 is a portable camera that turns your Android smartphone/tablet or Windows laptop into a powerful thermal imager. Simply download the accompanying app, slot the TC001 in your device's USB-C port, and unleash thermal technology that formally only belonged to special forces.

Perfect for home inspectors, HVAC technicians, electricians, automotive technicians, and even farmers looking to protect crops and livestock.

Specs

Specification



Spectral Range: 8~14μm
Resolution: 256×192 Pixels
Pixel Size: 12μm
NETD: ＜40mK @25°C, F#1.0, 25Hz
Frame Rate: 25Hz

Operating Systems

Compatible with Android
Phone / Tablet & Windows Laptop

Temperature

Object Temperature Range:
-20~150°C (-4~302°F),
150°C~550°C (302~1022°F)
Accuracy:
Maximum Temperature Variance of 2℃.
right down to the 0.1°C
Note:
The potential thermal error will be less than ±1.8°F (1°C) when the target temperature is below 212°F (100°C).

Parameters

Weight: 30g
Dimension:
71*42*14mm (2.80*1.65*0.55 inch)
Cable Length:
50cm (19.69 inch)

Superior Image Quality

Equipped with an ultra-high IR camera resolution of 256x192 pixels, the TC001 can produce a thermal image with unmatched clarity.

The TC001 is especially suitable for objects where surface temperature is hardly distinguishable, such as circuit boards and other electronics.

Built for Compatibility & Mobility

The TC001 is compatible with Android phone/tablet and features a downloadable app to turn a regular smartphone into a high-tech thermal camera. Windows tablet functionality is also supported, with the TCView app available to download from the TOPDDON official website.

Designed with mobility in mind, the TC001 can easily pair with most Android smartphones; the device only weighs 30g, and measures 71x42x14mm; further adding to the TC001's mobility.

Optimized Temperature Range And Accuracy

With a wide temperature range of 1. -4℉ to 1022℉(-20℃ to 550℃) , the camera can perform temperature reading for more objects.

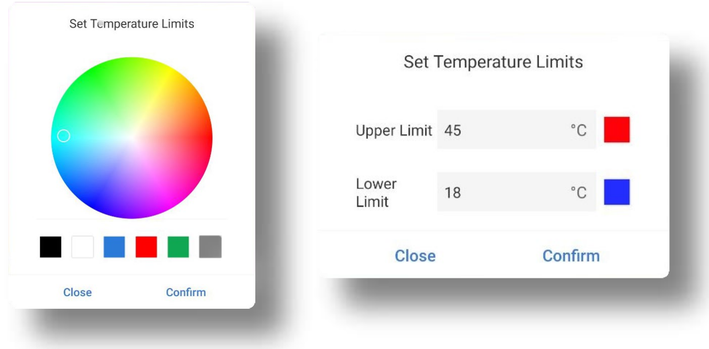
The TC001 infrared thermal camera can perform temperature detection with ±3.6°F (2°C) or 2% of max temperature for error.

It can also measure temperature to 0.1°C accuracy, allowing users to detect temperature with extreme accuracy.

Thermal Imaging App-Discover More

Users can download the app to view temperature recording data at any time and view or create real-time temperature graphs.

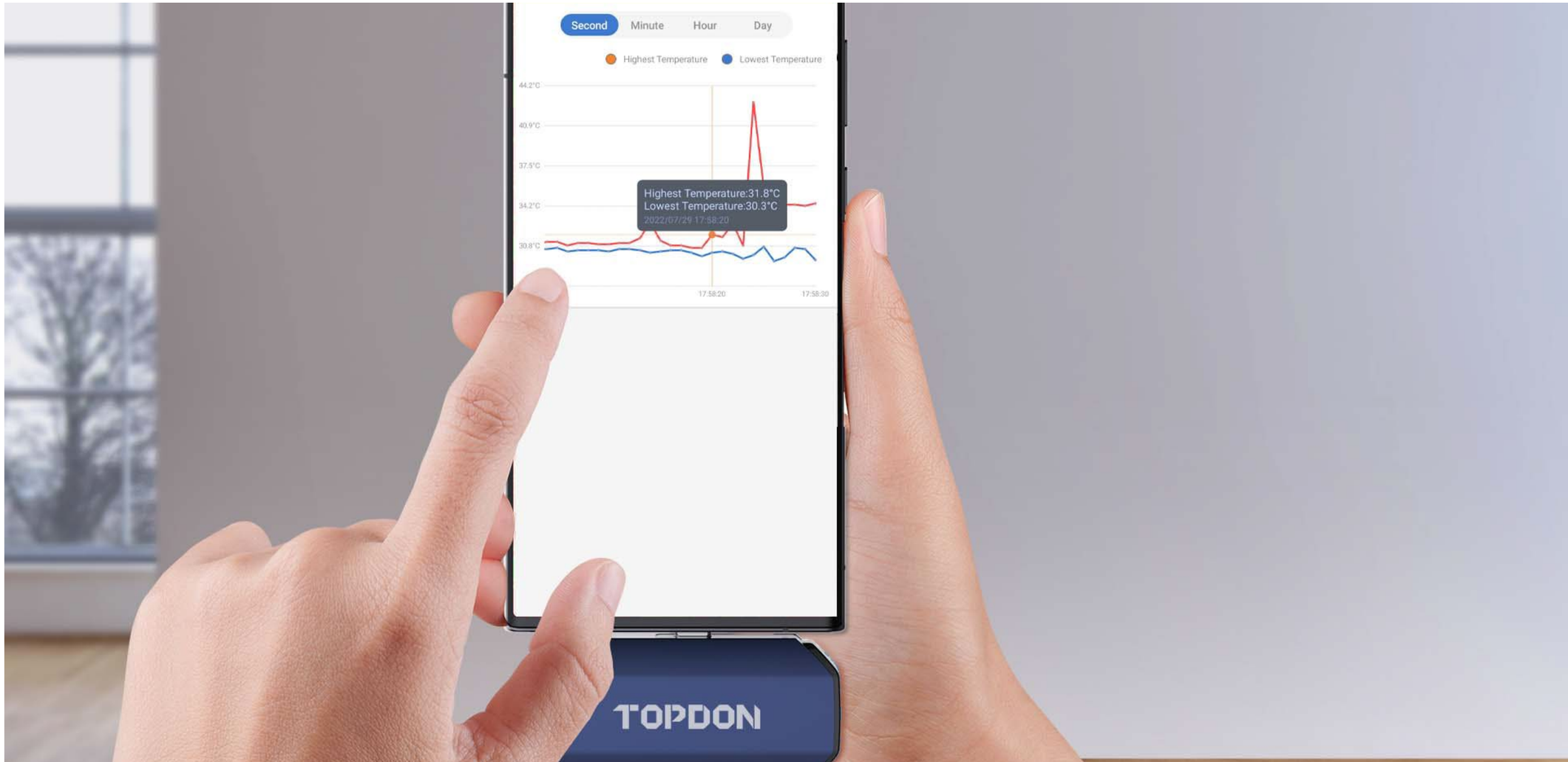
Featuring a DIY temperature range ability, the TOPDON infrared thermal camera allows users to set upper and lower limits, and corresponding colors.



Monitor Temperature Change By Waveform Graph

The TC001 can take continuous measurements of a scene, storing the data in the App. This data can provide the high, low, and average temperatures of objects in the scene over a set period of time and generate a waveform graph.

This waveform graph makes thermal reading observation much clearer, and allows for easier thermal temperature analysis.



Low Power Consumption, Lasts Longer

Compared to traditional infrared cameras, the TOPDON TC001 infrared thermal camera attaches to a smartphone or a tablet's input and is powered by the device, eliminating fear of running out of power outside with low power consumption of only 0.35W.

Unique Image Enhancement Technology

Includes 10 kinds of color palettes, sharpness and contrast adjustment, picture-in-picture and many other functions.Image enhancement technology makes the field of view clearer and more detailed, and enhances the target recognition function.

More Scenarios For Application

Plug and play and no registration is required if you only read the temperature. This tool is perfect for security purpose, such as Insulation inspection, Cylinder inspections, Water leak inspection, HVAC system inspection.

TC001 Functions

Turns Your Android Smartphone Into An Infrared Thermal Camera.

Read temperature for more objects ranging of -4°F to 1022°F(-20°C to 550°C).

Manually select 3 dimensions to check temperature: Point, Line(Highest and Lowest), Surface(Highest and Lowest).

DIY upper and lower limits, and corresponding colors to view temperature intuitively

Adjust image sharpness and contrast to make the field of view clearer.

Monitor Temperature Change by Waveform Graph

Choose from a variety of color palettes for more creative possibility.

Display a clear thermal image with ultra-high IR resolution of 256x192.

Image Manipulation: Image rotation & Picture-in-Picture.

What's In The Box?

TC001 Thermal Imaging Camera

x 1

Carrying Case

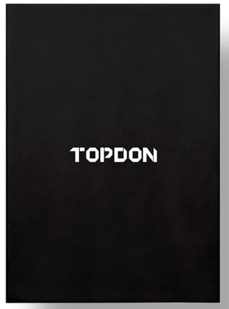
x 1

Multifunctional Adapter Cable

x 1

Package Box

(Front)



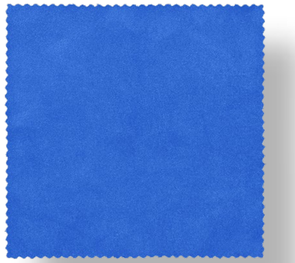
(Inner)

x 1

Quick User Guide

x 1

Cleaning Cloth



x 1

FAQs

Question

Why is there no response after connecting the TC001 to a phone?

Answer

Follow the the steps below to identify the problem:

a) Check if the blue LED indicator on the side of the TC001 is on. If not, the device may not be properly connected to your phone, or your phone does not support OTG functionality.

b) Check if OTG is available in your phone settings and if it is set to ON. For most phones, OTG functions are enabled by default and can be used directly. If not, please search “OTG” in Settings and turn it on manually. Please note that the TC001 is not compatible with phones without OTG functionality.

c) Check if the software version of Android is 6.0 or above.

d) Check if you have downloaded the TC001 app and given it necessary authorization.

e) Unplug the TC001 and reconnect it. If there is still no response, please contact after-sales personnel.

FAQs

Question

Can the TC001 detect objects underwater, through glass, or a wall?

Answer

No. Infrared detectors mainly detect the long-wave infrared region of 8~14μm, and can only be used to measure surface temperature.

Question

Why does the temperature reading increase when the device gets closer to the object?

Answer

Infrared radiation attenuates when passing through the atmosphere. The longer the distance, the greater the attenuation. Thus, the accuracy of temperature measurement at a distance will decrease. To ensure accuracy of measurement, please go to Personal Information -Settings - Temperature Correction - Distance to Spot, and input the actual distance (max: 5m) to get the corrected temperature.

FAQs

Question

Is the TC001 compatible with iOS devices?

Answer

No. The TC001 is ONLY compatible with Android devices and Windows computers.

Question

Why is there a clicking sound? What does "shutter moving" mean?

Answer

The temperature of the infrared imager will change slightly during use. Therefore, a periodic internal temperature calibration is needed. The micro-motor controlled activation or deactivation of the internal calibration makes such a sound, which is known in the industry as "shutter moving".

FAQs

Question

Why is the measured temperature not precise?

Answer

The temperature resolution of the TC001 is ±2%. The TC001 provides a normal temperature range of -20~150°C (-4~302°F), and a high temperature range of 150-550°C (302~1022°F). Please select the corresponding range in the app before measuring.

Question

What external factors will affect the infrared temperature measurement?

Answer

The factors are as follows:

a) Emissivity of the target 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 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.

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