

TOPDON®



TS001

Sharp Focus, Close or Distant



Thermal Imager

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What's In
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TS001

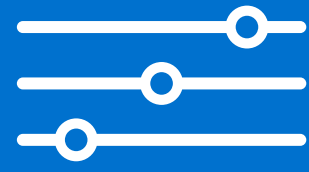
Experience unparalleled clarity from near to far with the TS001, a long-focus Android thermal imager designed to capture sharp images, even for objects as close as PCB boards.

With a high-resolution 256x192 pixels infrared sensor and a smooth 25Hz frame rate, every detail is captured with precision. The TS001's adjustable 9mm lens covers distances from 0.1 to 500 meters, catering to various applications including building inspections, animal observation, auto repair, and PCB inspection. Equipped with measurement and observation modes, it provides accurate temperature readings and intuitive insights into heat distribution. Perfect for professionals such as home inspectors, automotive technicians, and electricians, the TS001 empowers you to detect, diagnose, and resolve issues with unparalleled clarity and efficiency.

Comp Chart

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Specs

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What's In The Box?

Comp Chart

FAQs

Specification

Resolution:
256 x 192 Pixels

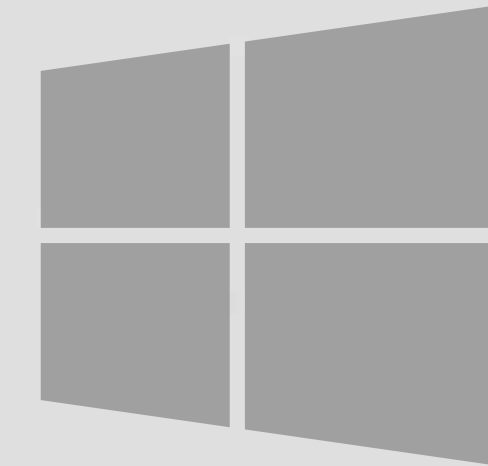
NETD:
<40mK

Focal Length:
9mm

Frame Rate:
25Hz



Operating Systems



Compatible with Android phones, Android tablets, & Windows laptops.

Temperature

Object Temperature Range:
-20°C~550°C (-4°F~1022°F)

Temperature Accuracy:
±3°C or ±3%

Temperature Resolution:
0.1°C

Parameters

Weight: 45g

Dimension:
2.76" x 1.1" x 1.73" (70 x 28 x 44mm)

Extension Cable Length:
50cm

Brief

Adjustable Lenses: Clear Vision from Near to Far

The TS001 boasts adjustable 9mm lenses, accommodating infrared imaging needs from 0.1 to 500 meters to ensure clarity whether viewing objects up close or at a distance.

Specs

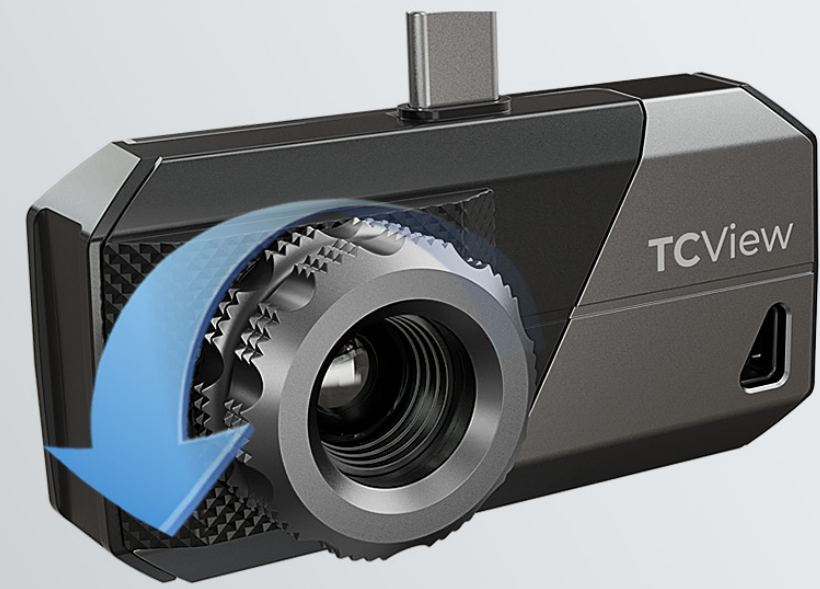
Features

Functions

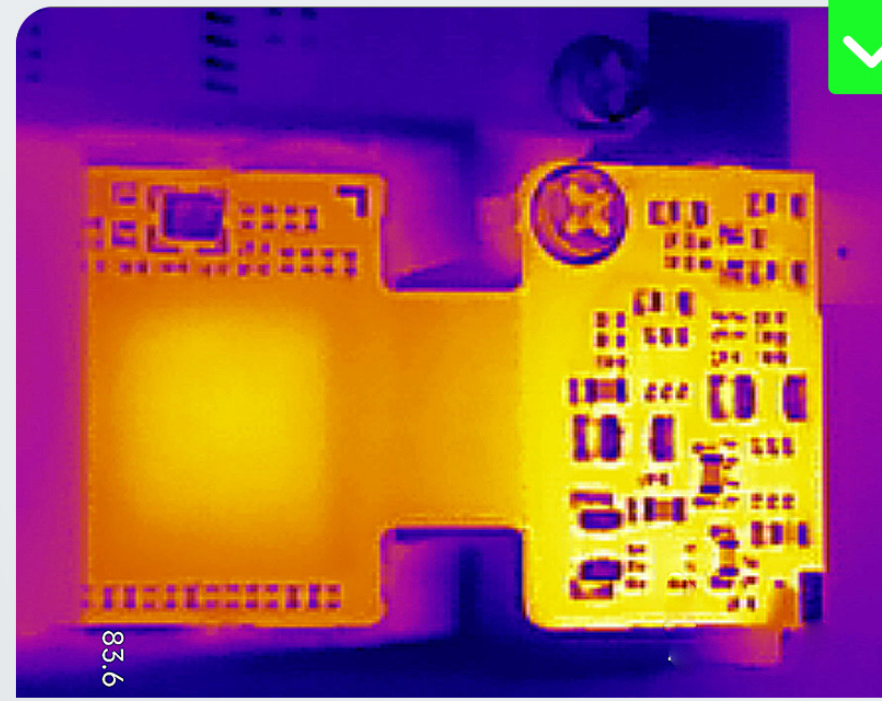
What's In The Box?

Comp Chart

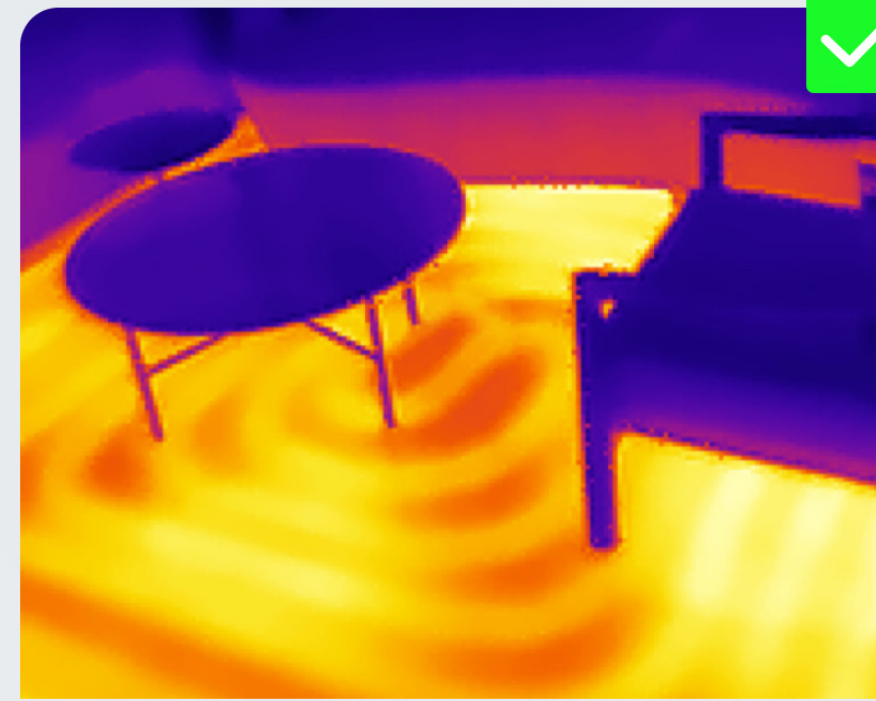
FAQs



Adjustable Lenses 9mm



PCB Boards



Underfloor Heating

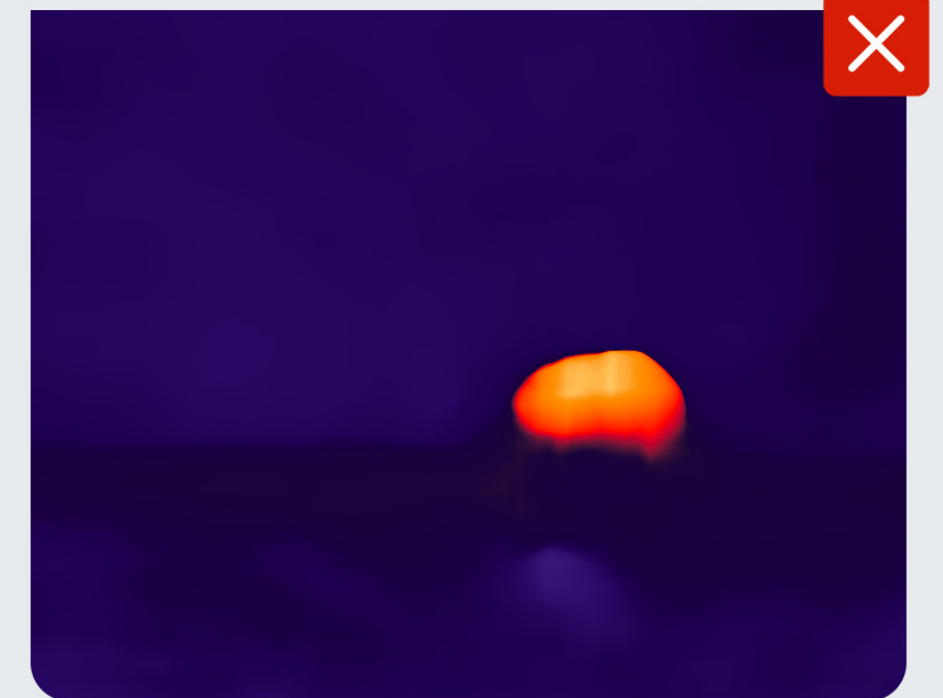
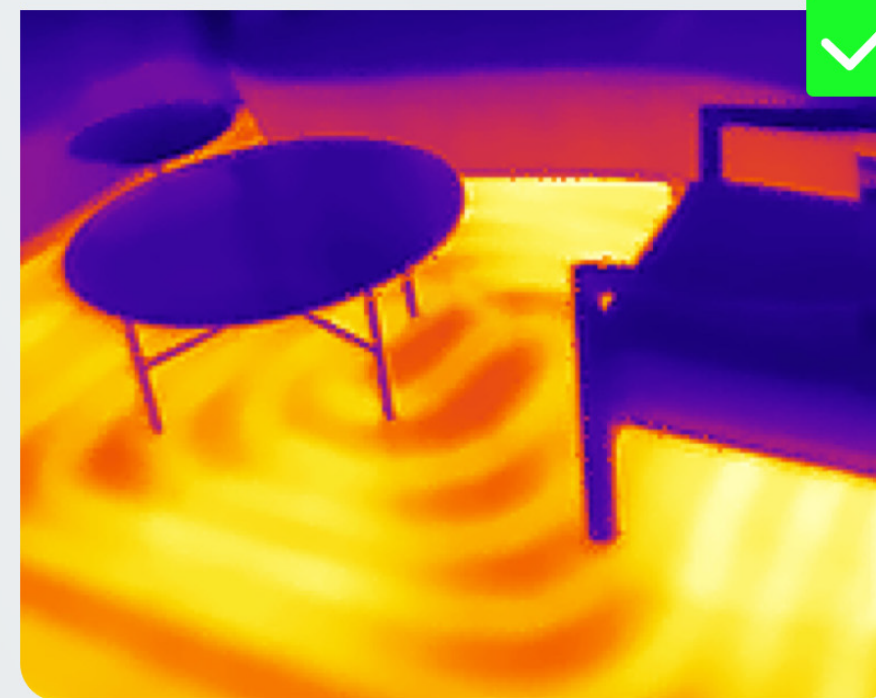
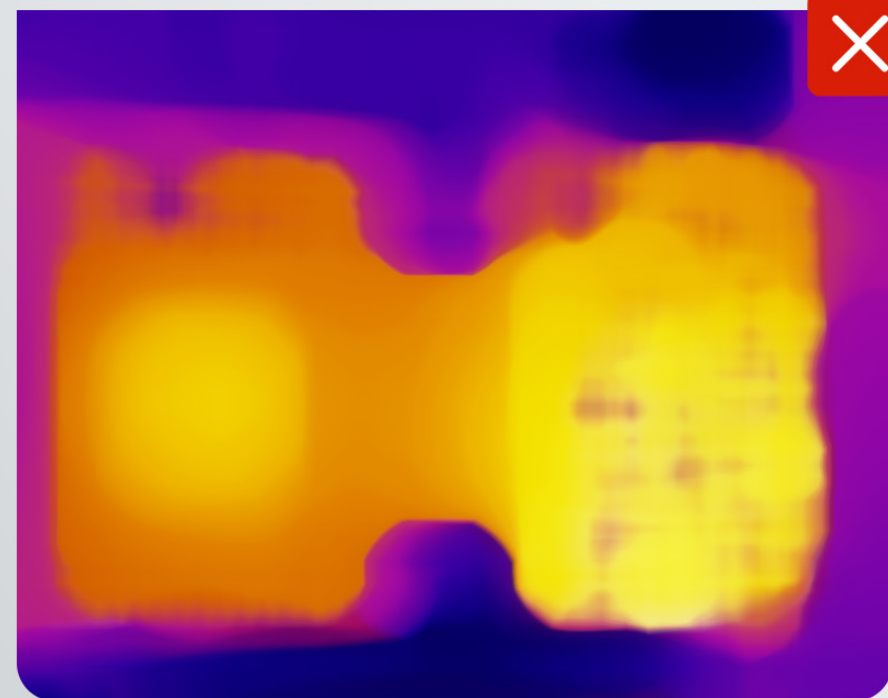


Animal Observation

VS



Focus 4mm



Brief

Where Clarity Takes Center Stage

See the infrared world in stunning clarity with our 256x192 IR Resolution TS001 imager, capturing crisp images with every detail.

Enjoy fluid visuals with a 25Hz infrared refresh rate for smooth and seamless viewing.

Specs

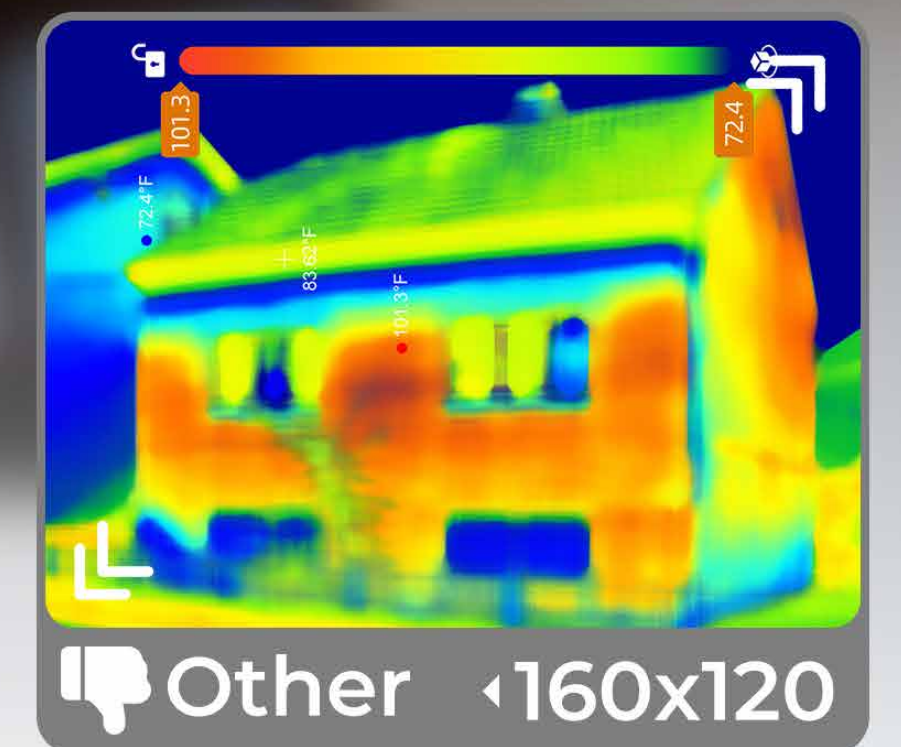
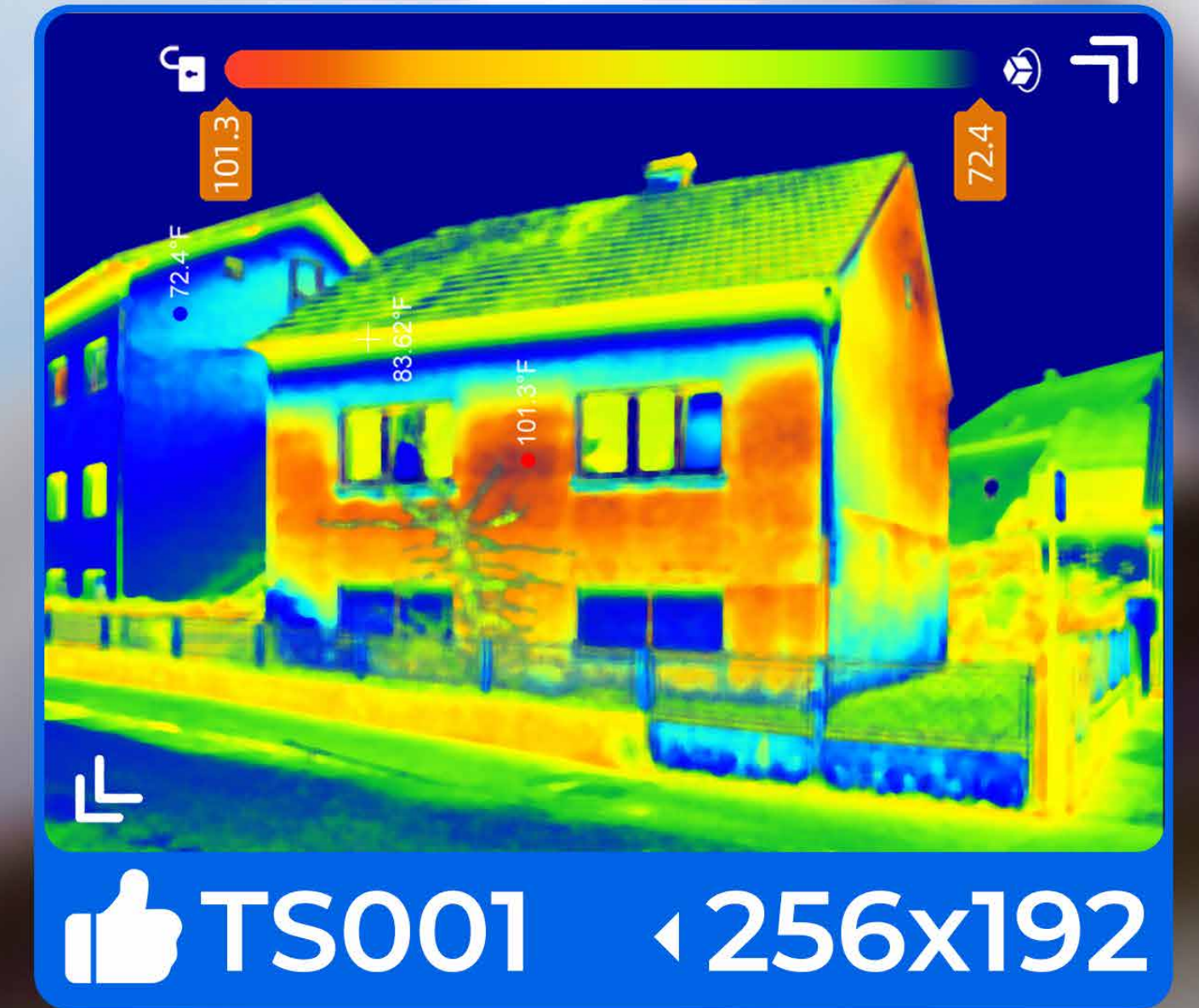
Features

Functions

What's In The Box?

Comp Chart

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Brief

Precision Pathfinders of Heat and Cold

The TS001 achieves readings with an incredible accuracy of 0.1 degrees and an error margin of less than 3%. It's the epitome of reliability.

From frosty lows of -20°C to scorching highs of 550°C (-4°F to 1022°F), it covers the temperature spectrum effortlessly.

Specs

Features

Functions

What's In The Box?

Comp Chart

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Brief

Fast Vision, Faster Action

In the world of thermal imaging, TS001's observation mode is your adept ally, swiftly capturing targets.

Its dynamic recognition tracks moving objects while the high/low-temperature mode intelligently flags extreme temperature sources.

Through these modes, TS001 rapidly identifies points of interest and uncovers anomalies within the observed area.

Specs

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Functions

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Brief

Swipe to Highlight Temperature Variance

With just a swipe, you can tailor your thermal view to focus only on what matters most to you.

The intuitive color bar lets you easily set the temperature range you want to spotlight.

Plus, when things heat up beyond your chosen range, you'll see it pop in bold black and white, or any other colors you choose, making temperature differences immediately crystal clear.

Specs

Features

Functions

What's In The Box?

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Brief

Boundless Vision, Always Clear

From up close to far away, indoors to outdoors, the TS001 Thermal Imaging Camera delivers unmatched clarity.

Whether you're inspecting PCB boards in the lab, monitoring boilers from a distance, conducting HVAC checks indoors, or outdoor cable inspection, TS001 has got you covered.

Specs

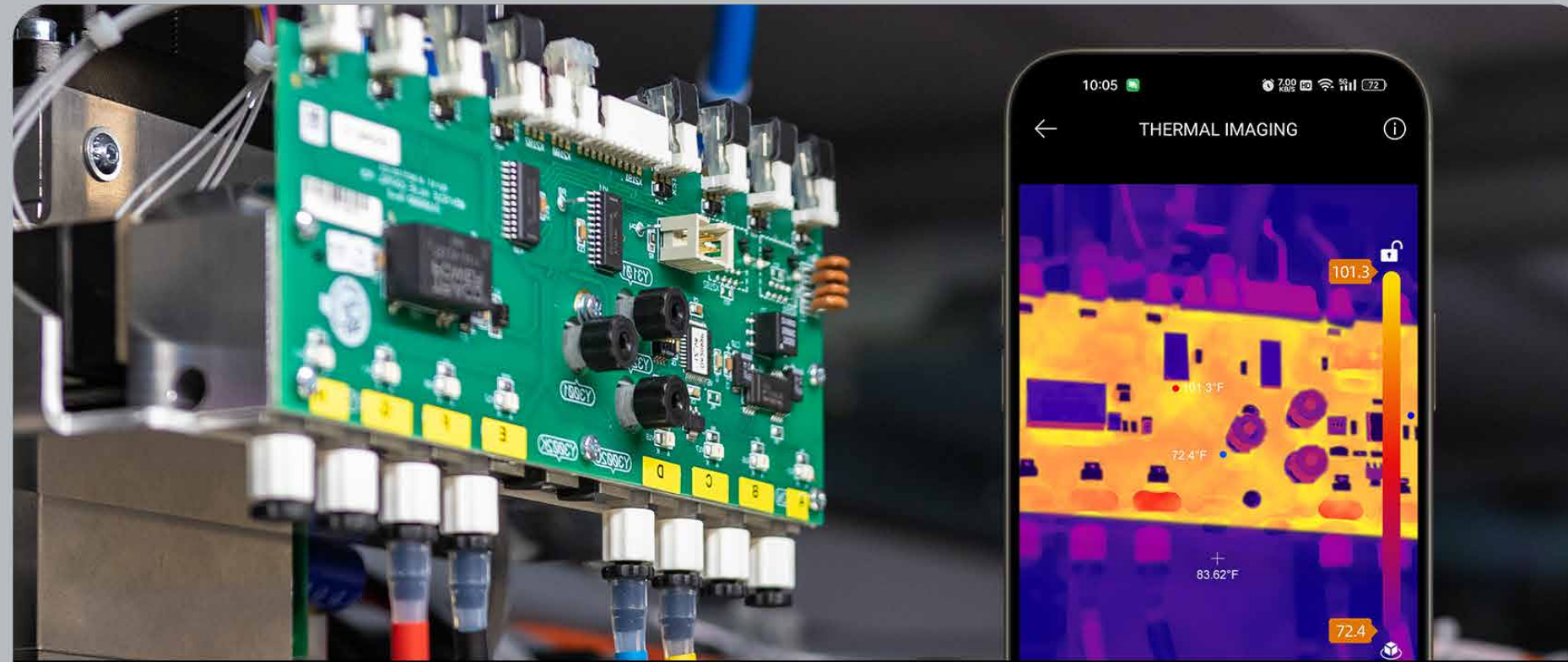
Features

Functions

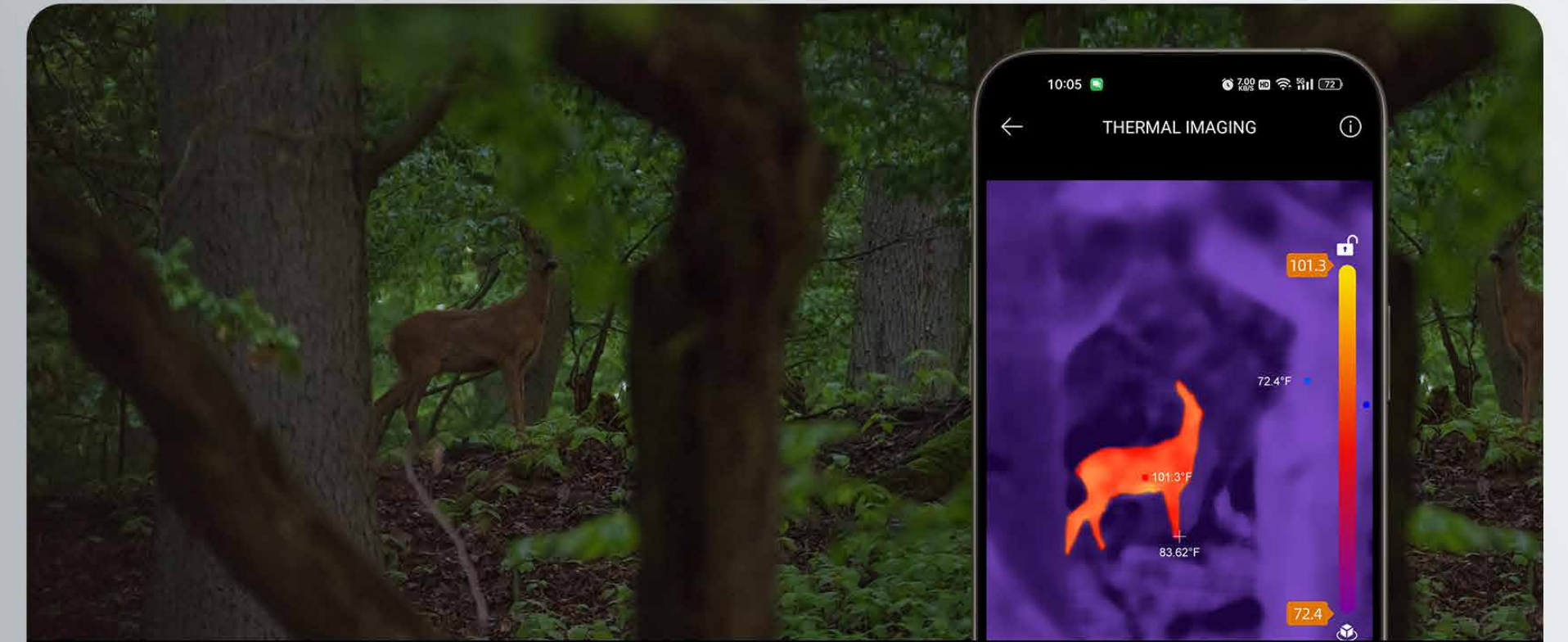
What's In The Box?

Comp Chart

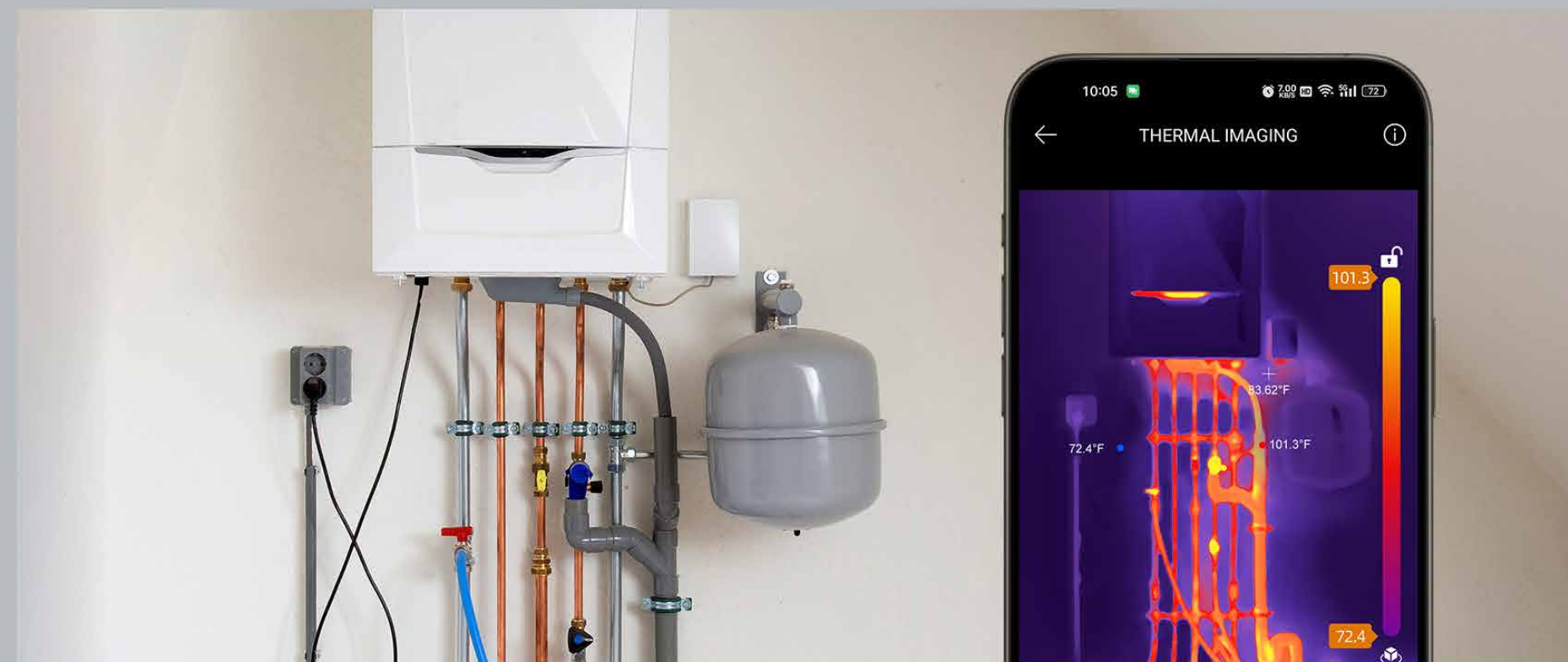
FAQs



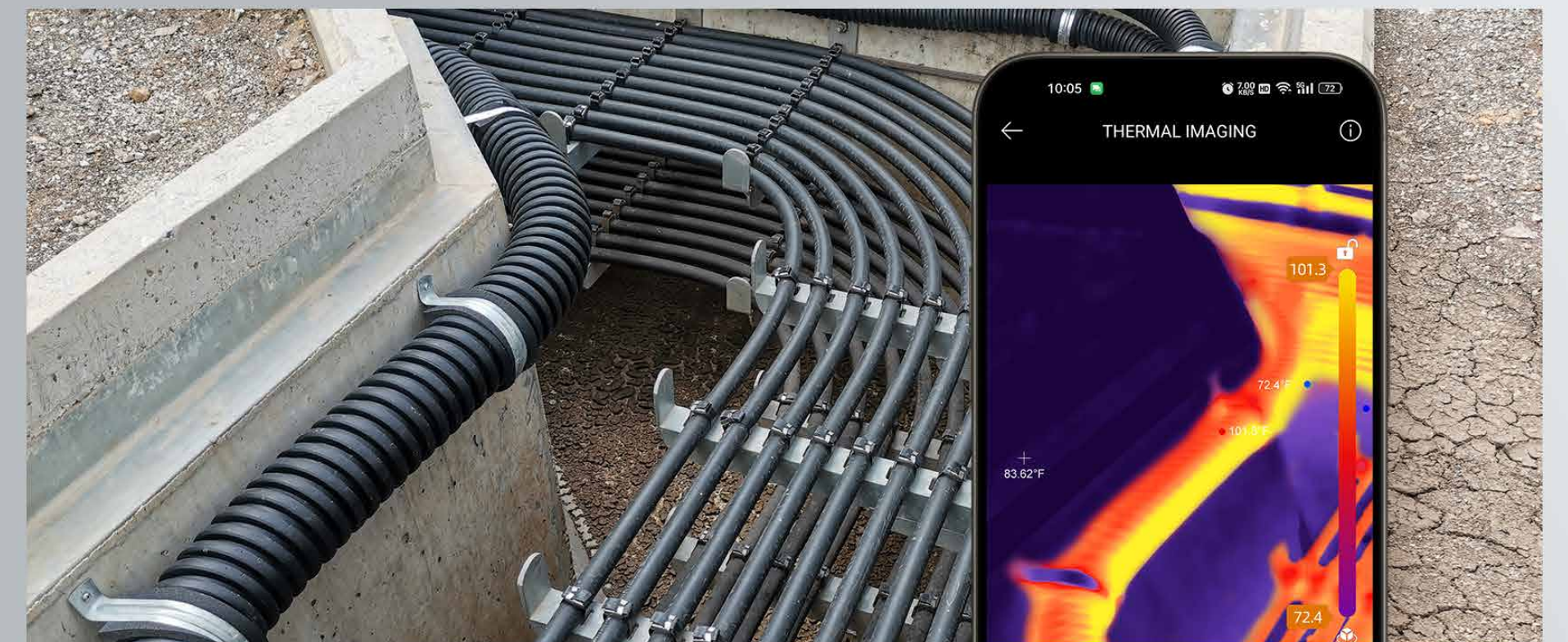
PCB Boards Inspection



Animals Observation



HVAC Inspection



Outdoor Cable Inspection

Brief

Built for Android & Windows

Compatible with Android phones and tablets, and Windows laptops.

Included 50cm extension cable offers more flexibility in temperature reading.

Specs

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Brief



Functions

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Dual Light Mode:
Combine the visual image
and infrared image



Smart Temperature
Alert



Real-time Temperature
Waveform



Image Secondary
Analysis

What's In
The Box?



10 Color Palettes



Works With PC



Image & Video

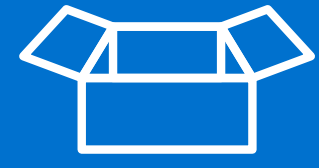


Customized Infrared
Reports

Comp Chart

FAQs

Brief



What's In The Box?

Specs

TS001



Package Box



Carrying Case



USB Data Cable



Features

Functions

Cleaning Cloth



Lens Cap



Thermal Camera Holder





Quick User Guide



What's In The Box?

Comp Chart

FAQs

MODEL	TC001	TS001
SPECIFICATIONS		
Resolution	256*192	256*192
Focal Length	3.2mm	9mm
Adjustable Lense	X	√
Measurement Distance	0.1~50m	0.1~500m
Temperature Accuracy	±2°C or ±2%	±3°C or ±3%
Frame rate	25Hz	25Hz
NETD	<40mK	<40mK
FOV	56°×42°	13°×10°
Color Palettes	10	10
Observation Mode	X	√
High/Low temperature alarm	Yes	Yes
Works with PC	√	√
Weight	30g	45g
Dimension	2.80" x 1.65" x 0.55" (71 x 42 x 14mm)	2.76" x 1.1" x 1.73" (70 x 28 x 44mm)
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

Brief



FAQs

Specs

Question

Why is there no response after connecting the TS001 to a phone?

Features

Answer

Follow the steps below to ensure the device is set up correctly:

- a) Check if the blue LED indicator on the side of the TS001 is on. If not, the device may not be properly connected to your phone or your phone does not support an OTG functionality.
- b) Check if OTG is available in your phone Settings and if it is 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 TS001 is not compatible with phones without OTG function.
- c) Check if the version of Android is 6.0 or above.
- d) Check if you have downloaded the TS001 app and given necessary authorization.
- e) Unplug the TS001 and reconnect it. If there is still no response, please contact after-sales personnel.

Functions

What's In
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FAQs

Specs

Question

Can the TS001 detect objects underwater, through glass, or a wall?

Features

Answer

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

Functions

Question

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

What's In
The Box?

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.

Comp Chart

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

Brief



FAQs

Specs

Question

Is the TS001 compatible with iOS devices?

Features

Answer

No. The TS001 is ONLY compatible with Android devices and Windows computers.

Functions

Question

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

What's In
The Box?

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 such internal calibration makes such a sound, which is known in the industry as "shutter moving".

Comp Chart

FAQs

Brief



FAQs

Specs

Question

Why is the measured temperature not precise?

Features

Answer

The temperature resolution of the TS001 is $\pm 3\%$. And the TS001 provides a normal temperature range of $-20\sim 150^{\circ}\text{C}$ ($-4\sim 302^{\circ}\text{F}$) and a high temperature range of $150\sim 550^{\circ}\text{C}$ ($302\sim 1022^{\circ}\text{F}$). Please select the corresponding range in the app before measuring.

Functions

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FAQs

Specs

Question

What external factors will affect the infrared temperature measurement?

Features

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.

Functions

What's In
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Comp Chart

FAQs



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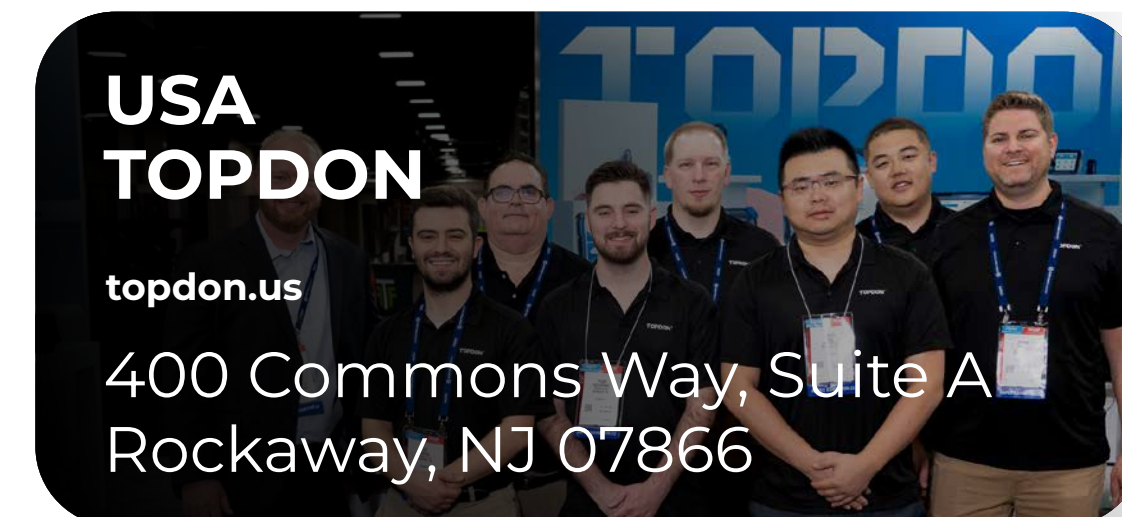
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