

THERMAL MASTER P2 Pro USB-C Mini Thermal Camera



Model: TM-P2pro

Manufacturer: THERMAL MASTER

EAN: 6977658980029

Product Code: 1180703

R6,172

THERMAL MASTER P2 Pro Mini Thermal Camera (USB-C)

The THERMAL MASTER P2 Pro is a professional-grade mini thermal camera that combines an exceptionally compact design with precise diagnostic capabilities. It weighs just 9 g and measures only 27 × 18 × 9.8 mm, making it even smaller than the standard P2 model, and when connected to a smartphone, it instantly turns it into a professional thermal inspection tool. The device offers an infrared resolution of 256 × 192 pixels, which is upscaled to 512 × 384 pixels thanks to X³IR technology, a measurement range from -20°C to 600°C, and an accuracy of ±2°C at the PCB level. Thermal sensitivity NETD ≤40 mK, 15x digital zoom, and low power consumption of just 0.33 W make it an extremely effective tool for electronics engineers, electricians, HVAC installers, and automotive diagnosticians.

Even more detail with Razor X™ and X³IR

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Image capture is handled by a VOx sensor with a resolution of 256×192 pixels and a pixel size of $12 \mu\text{m}$. The use of the Razor X™ Ultra Clear Image Algorithm and X³IR technology increases image detail to 512×384 pixels, allowing you to see significantly more detail than with standard thermal imaging cameras. The P2 Pro allows for the observation of electronic components as small as $0.25 \times 0.25 \text{ mm}$, making it ideal for diagnosing PCBs, locating overheating components, and detecting short circuits.

Magnetic macro lens for precise work with electronics

The kit includes a magnetic macro lens that allows for even greater detail when working with small components. This solution will be particularly appreciated by electronics technicians who repair motherboards, power supply units, and mobile devices. The ability to closely observe miniature resistors, capacitors, and integrated circuits significantly reduces diagnostic time and makes it easier to locate faults.

Wide measurement range and high thermal sensitivity

The THERMAL MASTER P2 Pro measures temperatures ranging from -20°C to 600°C , making it suitable for both precise electronics diagnostics and the inspection of electrical installations, HVAC systems, and engine components. Accuracy of $\pm 2^{\circ}\text{C}$ and IQ+ Precision Temp technology ensure reliable results, while the very high sensitivity of $\text{NETD} \leq 40 \text{ mK}$ allows for the detection of even minimal temperature differences. This makes it easier to detect overheating wires, energy losses, thermal bridges, or malfunctioning components.

Professional analysis in the Temp Master app

The dedicated Temp Master app allows you to perform spot, line, and surface analysis at no additional cost. You can choose from 12 color palettes, such as White Hot, Black Hot, Iron Red, and Red Hot, save photos and videos, and use the Colorbar feature, which highlights objects at a specific temperature. Emissivity, distance, and ambient temperature adjustments are also available, increasing measurement accuracy under various conditions.

Minimal power consumption and long battery life

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The camera is powered directly from the host device via a USB-C connection, so it does not require its own battery. With a power consumption of just 0.33 W, it can operate for extended periods without significantly draining your smartphone’s battery. Depending on the device, the operating time can range from 300 to 480 minutes. For example, when connected to a Samsung Galaxy S23+ with a 4700 mAh battery, the camera can operate for approximately 367 minutes.

One device, many applications

The P2 Pro (USB-C) is compatible with smartphones running Android 6.0 and later. The camera can also be used with tablets and computers via the Temp Master app, providing greater convenience during analysis and report generation. The plug-and-play feature allows you to start working immediately after connecting. The camera is ideal for PCB diagnostics, electronics repair, electrical inspections, HVAC system inspections, pipeline diagnostics, building energy audits, and automotive repairs. It can also be used for inspecting photovoltaic panels, engine repairs, monitoring electrical switchgear, tire inspections, and even outdoor applications such as hiking, fishing, or locating animals.

Included in the set:

- Thermal imaging camera
- Magnetic macro lens
- USB-C extension cable
- Quick start guide

Manufacturer	THERMAL MASTER
Model	P2 Pro
Infrared (IR) resolution	256 × 192 pixels (12 µm pixel size)
Temperature measurement range	From -20°C to 600°C
Temperature measurement accuracy	±2°C (PCB-grade accuracy)

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Accessories	Magnetic macro lens
PCB testing	Capable of observing 0.25 × 0.25 mm resistors
Zoom	15× digital zoom
Thermal sensitivity (NETD)	≤40 mK at 25°C, F#1.0
Estimated runtime	300 to 480 minutes (e.g., Samsung Galaxy S23+ with a 4700 mAh battery – approximately 367 minutes of operation)
Power consumption	0.33 W
Image refresh rate	25 Hz
IQ+ Precision Temp	Supported
Razor X	Supported
Colorbar technology	Highlighting of objects at a specific temperature
Free professional analysis	Point, line, and surface analysis
Color palettes	12 palettes (White Hot, Black Hot, Iron Red, Red Hot, and 8 others)
Measurement parameter correction	Emissivity, distance, ambient temperature
Adaptation method	Smartphone / tablet / computer
Application scenarios	Electrical inspections, HVAC, pipelines, buildings, and automotive
Thermal core	Thermal Master High-Sensitivity Core
Focus mode	Fixed-focus athermal lens (Athermalized Prime Lens)
Field of View (FOV)	56.0° (horizontal) × 42.2° (vertical)
Weight	9 g
Photo and Video Recording	Capable of saving photos and videos
Dimensions	27 × 18 × 9.8 mm
Operating temperature	From -10°C to 55°C
Storage temperature	From -40°C to 85°C
App name	Temp Master
Supported OS	Android 6.0 and later

Net weight: 260, Box length: 11,00, Box width: 6,50, Box height: 3,50, Gross weight: 260, GPSR Link:

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https://psr-assets.innpro.pl/photo_and_accessories/sg_photo_and_accessories_photo_accessories.pdf,

Information about data generation: https://dataact.innpro.pl/THERMAL_MASTER/6977658980029

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