Professional Handheld Thermal Camera M305

InfiRay Tianxuan M305 Professional Handheld Thermal Camera is a high-resolution manual-focusing thermal camera for temperature measurement. Featuring InfiRay high-performance 12μm 384×288 infrared detector and 5-megapixel visible light camera, it can easily present high-resolution thermal images on the basis of the 35mK thermal sensitivity and accurate manual focusing function. Its diversified analysis and data association functions make it a powerful assistant for demanding engineers engaged in electricity, automation, building inspection, and piping HVAC.
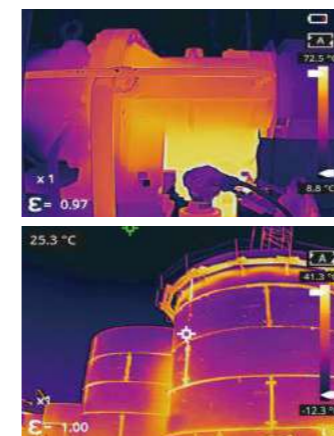
CE RoHS FC

Check clearly, solve quickly

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High-performance thermal imaging detector
Perform well in key tasks, with one device serving several purposes

- **High resolution, high frame rate, high accuracy, and wide range**

  The 12μm high-performance 384×288 infrared detector collaborates with an accurate manual focusing lens. On the strength of up to 8× digital zoom, it is a perfect substitute for low-resolution devices with multiple lenses, saving the trouble of changing lenses.

- **Plug and play analysis with USB, real-time full-frame transmission and analysis of temperature information**

  Timed photographing is available. Real-time and offline analysis can be realized on the PC software. The report can be generated with one click, which empowers the applications in professional scientific research, equipment monitoring, temperature measurement assessment, and more.

  USB Plug-and-play Analysis

- **Amazing native 110,000-pixel thermal image + 5-megapixel visible-light image**

  Featuring a resolvable temperature difference of 0.035℃ and a 30Hz high frame rate, it can obtain delicate and smooth images and videos with no data missing even the user is on the move. With a measurement accuracy of ±2℃, it ensures the accuracy of temperature data while offering a wider measurement range.

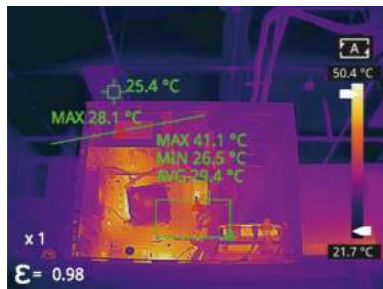## 2

Advanced interaction function
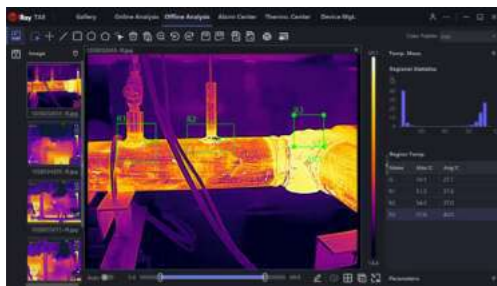# Visualize temperature measurement clearly

- **Three-point temperature display, custom point/line/area temperature measurement**

  The product can automatically trace the highest, lowest, and center temperature in the measurement area; it can perform movable point/line/area temperature measurement; hot spot tracing can be displayed for line/area temperature measurement; the highest temperature can be displayed for line temperature measurement, and the highest, lowest, and average temperature can be displayed for area temperature measurement.
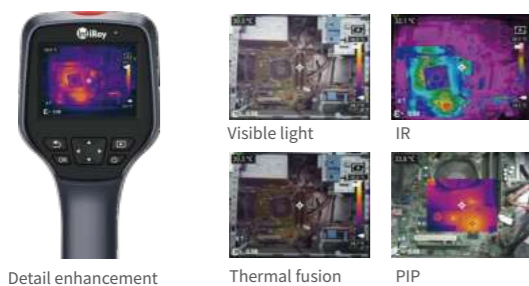
- **Comprehensive analysis data on PC, and convenient operation with App**

  The thermal images and visible light images with temperature data can be synced to the PC analysis software for professional analyses. In addition, it supports Wi-Fi transmission, so temperature images and data can be analyzed and shared with the App anywhere and anytime efficiently and conveniently.

- **Built-in 5 image modes+10 pseudo color settings**

  The device boasts 5 image modes including detail enhancement, IR, visible light, PIP, and fusion, with 10 palette settings, to cater to the temperature measurements of different requirements and increase the measurement efficiency.

Visible light   IR

Detail enhancement   Thermal fusion   PIP

- **Support full-frame high/low-temperature alarm and time-lapse photographing**

  When the temperature in the inspection area exceeds the threshold value, the device will give a temperature alarm, so the fault point can be detected in a timely manner to reduce the loss caused by high-temperature accident. It especially supports timed photographing to record temperature rises, facilitating equipment operation analysis and various scientific research applications.

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Easy-to-use and reliable overall performance
Your right-hand thermal imaging assistant

- **Solid and durable, IP54 + 2m-drop protection**

  It features a 2m-drop protection and is waterproof/dustproof. IP54 ensures its temperature measurement accuracy, imaging quality, and functions will not be influenced even if the tools drop off, are trampled, or get stained with water or dirt.

  2m drop   Waterproof   Dustproof

- **Laser pointer module, quick target positioning**

  The built-in laser pointer helps you quickly locate the target and obtain an accurate temperature.

- **HD thermal image displayed on a 3.5-inch HD touch screen**

  After the HD thermal image is obtained, you can view more temperature information of each image on the 3.5-inch HD touch screen.

- **Voice annotation and QR code naming functions free your hands**

  In case of a long-time operation, it can help you quickly distinguish the necessary information on the image and clearly know the real-time site situation. The images can be named automatically, or by scanning QR code, or by entering a name manually.

Specifications

Model		M305
Thermal Imaging Parameters	Detector Type	Uncooled Vox
	Detector Resolution	8-14μm
	Infrared Spectral Band	384×288
	Pixel Pitch	12μm
	Thermal Sensitivity	35mK
	IFOV (Spatial Resolution)	1.98mrad
	Frame Rate	30Hz
	Focal Length	6.2mm
	FOV	43.7°×31.9°
	Focusing Mode	Manual focusing
	Measurement Range	-20 ℃～150 ℃ , 100 ℃～550 ℃
	Measurement Accuracy	±2% or ±2℃
Camera Functions	Temperature Measuring Mode	Center point/hot and cold spot tracking and temperature display
	Custom Temperature Measurement	Movable points/lines/areas; up to 10 points, areas, and lines
	Temperature Measuring Unit	Celsius, Fahrenheit, Kelvin
	Emissivity Settings	Adjustable between 0.01 and 1.00 with a step size of 0.01
	Ambient Temperature Settings	−10℃ to +50℃ with a step size of 1℃
	Distance Settings	1-20m with a step size of 1m
	Digital Zoom	1×, 2×, 4×, 8×
	Image Mode	Infrared, dual-spectrum fusion, visible light, PIP
	Palettes	10
	Temperature Alarm	Available
	Alarm Type	Image alarm
	Temperature Scale	Manual/Auto temperature range
	Laser Pointer	Available
	Visible Light Camera	5MP
	Video/Photo Storage	XX-IR.jpg (infrared image with temperature data) and XX-DC.jpg (visible-light image); H.264 videos without temperature data
	Video Transmission	UVC, without temperature data
	Voice Annotation	Available
	Language	English, Polish, Russian, Korean, Hungarian, Brazilian Portuguese, German, French, Spanish, Italian, Turkish, Traditional Chinese
	Display Size	3.5-inch touch screen (480×640)
	Image Naming	Auto/manual naming, naming by scanning QR code
	Memory Card	Standard 32GB Micro SD card
	Battery	Rechargeable and detachable lithium-ion battery
	Power Interface	USB Type-C
	Connecting Methods	USB, WiFi
	Charging Time	About 3 hours
	Operating Time	About 4 hours
	Power Management	Automatic shutdown: 5 minutes, 10 minutes, 20 minutes, never
Others	Analysis Software	PC (Infrared Analysis Software) & Mobile Device (iOS/Android APP)
	Tripod Mounting	Equipped (1/4''-20-UNC)
	Operating Temperature	-10℃ to +50℃
	Storage Temperature	-20℃ to +60℃
	Relative Humidity	10% to 95%, non-condensing
	Drop Protection	2m
	IP Grade	IP54(IEC 60529)
	Shock and Vibration	Shock: 25g (IEC 60068-2-27); vibration: 2.5g (IEC60068-2-6)
	Dimensions (H×W×D)	256.4×105.1×105.3mm
	Weight	About 670g
	Authentication	CE/FCC/UKCA/RoHS
	Standard Fittings	5V 3A power adapter (with various plugs to fit global regions), USB cable, SD card, battery × 2, QSG, battery charger, calibration certificate, package list, safety box