

M31T Thermographic Handheld Camera



The HIKMICRO M31T handheld thermal imaging camera is engineered for high-precision temperature monitoring within critical ranges. Equipped with a 384×288 resolution, advanced calibration algorithms, it enables rapid identification of temperature anomalies in dynamic environments. With real-time temperature tracking at $\pm 0.5^{\circ}\text{C}$ accuracy (ambient temperature: $5^{\circ}\text{C}\sim 40^{\circ}\text{C}$), the device supports informed decision-making and enhances safety.

• Features

- High sensitivity thermal module with 384×288 resolution
- Supports multiple palettes
- High quality optical module with 8 MP resolution
- Bi-spectrum image fusion, picture-in-picture preview
- Wide temperature measurement range: $5^{\circ}\text{C}\sim 40^{\circ}\text{C}$
- High temperature measurement accuracy: Max ($\pm 0.5^{\circ}\text{C}$), for the ambient temp. 15°C to 35°C
- 640×480 resolution 3.5" LCD touch display
- LED light supplement makes the device a torch in required scenarios
- Supports 1.0× to 8.0× continuous digital zoom

• Specification

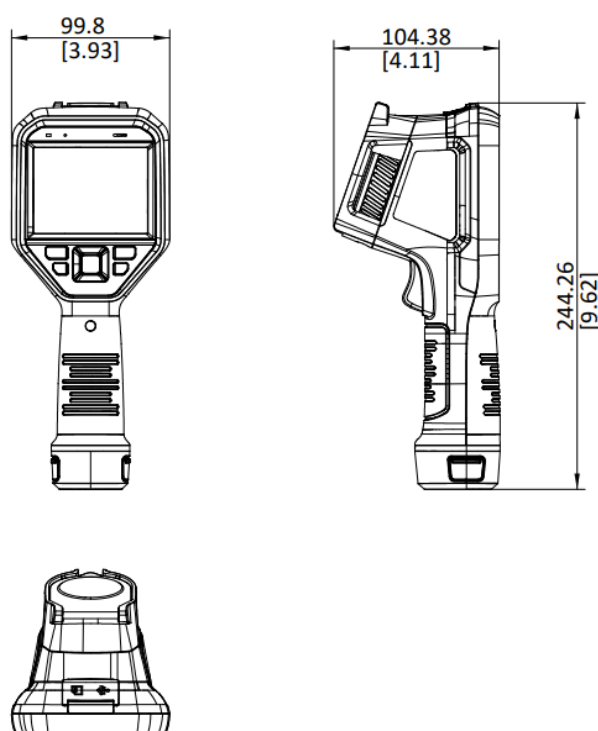
Infrared Image	
IR Resolution	384×288 (110,592 pixels)
SuperIR	768×576 (442,368 pixels)
NETD	< 35 mK (@ 25°C, F#=1.0)
Image Frequency	30 Hz
Detector Pitch	12 μm
Spectral Range	7.5 to 14 μm
Focal Length	6.4 mm
F-number	F1.0
Field of View (FOV)	41.1°×30.5°
Spatial Resolution (IFOV)	1.87 mrad
Min. Focus Distance	0.1 m (0.32 ft)
Focus Mode	Manual Focus
Image Display	
Visual Camera	3264×2448 (8 MP)
Display	640×480 Resolution, 3.5" LCD Touch Screen
Screen Brightness	Manual
Digital Zoom	1.0× to 8.0× continuous
Color Palettes	White Hot, Black Hot, Rainbow, Ironbow, Red Hot, Fusion, Rain, Blue Red
Focus Mode Palette	Above/Below/Interval
Color Alarm	Above/Below/Interval
Image Modes	Thermal/Visual/Fusion/PIP/Blending
Measurement and Analysis	
Object Temperature Range	Range 5°C to 40°C (41°F to 104°F)
Accuracy	Max (±0.5°C), for the ambient temp. 15°C to 35°C
Measurement Tools	Center Spot, Hot Spot, Cold Spot User-definable: 10 spots, 1 line, 5 rectangles, and 5 circles
Level and Span Mode	Auto/Manual/1-Tap Touch-screen
Data Storage and Communication	
Image Storage Capacity	Approx. 100,000 Images (8 MP)
Annotations	Voice note: max. 60 seconds; Text note: max. 200 characters; QR Code note; Picture note; Tag note; Sketch;
Video Storage Capacity	MP4 video max. 400 h; Radiometric video max. 50 h
Video File Format	MP4 video and radiometric video
Radiometric Infrared-Video Streaming (Compressed)	Over UVC, Wi-Fi
Extendable Memory Card	Extendable 64 GB Micro SD Card
General	
Wi-Fi	802.11 b/g/n (2.4 GHz and 5 GHz)
Bluetooth	Bluetooth 4.2
USB Interface	USB Type-C
LED Light	Yes

Laser	Yes, Class II, Wavelength: 635 nm; Power:< 1 mW
Battery Type	Interchangeable and rechargeable Li-ion battery
Battery Operating Time	Approx. 4 hours
Battery Charging Time	Approx. 4 hours fully charged
Power Saving Mode	Yes
Protection Level	IP54
Drop Test Height	2 m (6.56 ft)
Safety	IEC 61010-1
EMC	EN 301489-1, EN 301489-17, EN IEC 61000-6-2, EN IEC 61000-6-3, EN 61326-1
Vibration	2 g, IEC 60068-2-6
Warranty	3 years for the full product, 10 years for the detector, and 2 years for the battery.
Shock	25 g, IEC 60068-2-27
Working Temperature Range	5°C to 40°C (41°F to 104°F)
Storage Temperature Range	-40°C to 70°C (-40°F to 158°F)
Relative Humidity	< 95% non-condensing
Weight	Approx. 720g (1.59 lb)
Dimension	244 × 100 × 104 mm (9.6 × 3.9 × 4.1 in)
Tripod Mounting	UNC ¼"-20

▪ Available Model

HM-TP23A-7QF/W-M31T

▪ Dimension



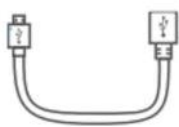
Unit: mm [inch]

SCALE 1:1

▪ Packaging List



QSG (× 1)



**USB 2.0 A to USB Type-C Cable
(× 1)**



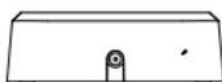
**Power Supply for
Battery Charger (× 1)**



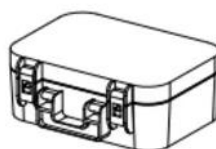
**International Use
Plugs (US/EU/UK/AU)
for Power Supply**



Battery (× 2)



Two-bay Battery Charger (× 1)



**Hard Carrying Case (×
1)**



Wrist Strap (× 1)



Calibration Certificate

▪ Accessory

▪ Optional

**E097-13-1S1P26650
M Series Battery**



**HM-5202ZC
M Series Charging
Base**



**HM-SP01-POUCH
M/G/SP Series Pouch**



▪ COMPLIANCE NOTICE:

The thermal series products might be subject to export controls in various countries or regions, including without limitation, the United States, European Union, United Kingdom and/or other member countries of the Wassenaar Arrangement. Please consult your professional legal or compliance expert or local government authorities for any necessary export license requirements if you intend to transfer, export, re-export the thermal series products between different countries.



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*Note: Specifications are subject to change without notice. For the current specs,
please go to www.hikmicrotech.com