M31
HM-TP23-7QF/W-M31

HIKMICRO M31 handheld camera is specially designed for temperature measurement. It's equipped with a 384 x 288 resolution thermal detector. It helps the staff to quickly find the high-temperature targets in the environment. Meanwhile, it provides assistance with decisions and ensures safety. The device is mainly applied to various industries, such as Building, HVAC, auto industry, etc.

▪Key Features

- High sensitivity thermal module with 384 x 288 resolution
- Leading thermal image processing technology: Adaptive AGC, DDE, 3D DNR
- Supports multiple palettes
- High quality optical module with 8 MP resolution
- Bi-spectrum image fusion, picture-in-picture preview
- Wide temperature measurement range: -20°C ~650°C
- High temperature measurement accuracy: Max (±2°C/3.6°F, ±2%), for the ambient temp. 15°C to 35°C (59°F to 95°F) and object temp. above 0°C (32°F)
- 640 x 480 resolution 3.5'' LCD touch display
- Long-distance laser light supplement for thermography targets
- LED light supplement makes the device a torch in required scenarios
- Supports 1.0x to 8.0x continuous digital zoom
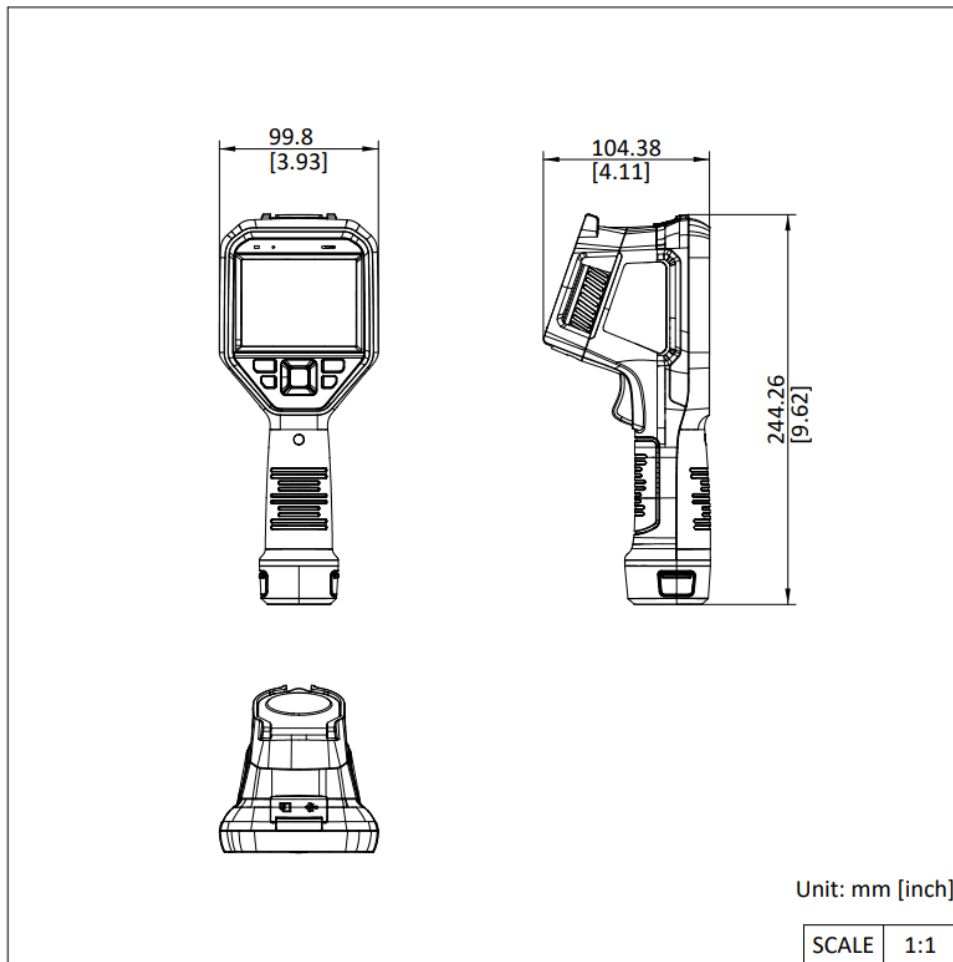
▪ Specification

Infrared Image	
IR Resolution	384 x 288 (110,592 pixels)
SuperIR	768 x 576 (442,368 pixels)
NETD	< 35 mK (@ 25 °C, F#=1.0)
Image Frequency	30Hz
Detector Pitch	12 μm
Spectral Range	7.5 to 14 μm
Focal Length	6.4mm
F-number	F1.0
Field of View (FOV)	41.1°×30.5°
Spatial Resolution (IFOV)	1.87 mrad
Min. Focus Distance	0.1 m (0.32ft)
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	1.0x to 8.0x continuous
Color Palettes	White Hot, Black Hot, Rainbow, Ironbow, Red Hot, Fusion, Rain, Blue Red, Condensation Alarm
Focus Mode Palette	Above/Below/Interval
Color Alarm	Above/Below/Interval/Insulation
Image Modes	Thermal/Visual/Fusion/PIP/Blending
Measurement and Analysis	
Object Temperature Range	Range -20°C to 150°C (-4°F to 302°F) Range 0°C to 650°C (32°F to 1202°F)
Accuracy	Max (±2°C/3.6°F, ±2%), for the ambient temp. 15°C to 35°C (59°F to 95°F) and object temp. above 0°C (32°F)
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
SuperScene+	Electrical Panel, PCB Inspection
Data Storage and Communication	
Image Storage Capacity	Approx. 100,000 Images (8MP)
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. 400h; Radiometric video max. 50h
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	-20°C to 50°C (-4°F to 122°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-TP23-7QF/W-M31

▪Dimension

99.8
[3.93]

104.38
[4.11]

244.26
[9.62]

Unit: mm [inch]

SCALE	1:1

▪Packaging List
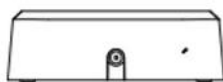

QSG (× 1)

USB 2.0 A to USB Type-C Cable
(× 1)

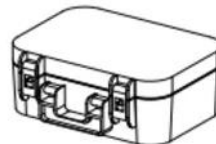Power Supply for
Battery Charger (× 1)

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**

HM-AHL02-MM650
Thermography
Camera Macro Lens

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

E097-13-1S1P26650
M Series Battery

HM-5202ZC
M Series Charging
Base

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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