M20W
Handheld Thermal Camera



HIKMICRO M20W handheld thermography camera is specially designed for professional inspections of large objects where a wider FOV captures more of the scene in one picture. It's equipped with a 256 × 192 resolution thermal detector, 50° x 37.2° fixed focus lens, and an 8MP resolution visual camera. The high resolution 3.5-inch touch screen displays crisp, clear images and streamlines camera operations. Imaging modes include thermal, visual, picture in a picture of the optical and thermal view, and fusion of both channels. The M20W quickly identifies potential faults and quantifies the impact with accurate temperature measurement, provides detailed documentation to complete your inspections efficiently.

▪ Features

- High sensitivity thermal module with 256 × 192 resolution
- Supports multiple palettes
- High quality optical module with 8 MP resolution
- Bi-spectrum image fusion, picture-in-picture preview
- Wide temperature measurement range: -20 - 650° C
- High temperature measurement accuracy: Max ±2°C for 0 to 100°C, ±2% for 100 to 600°C, ±4% for 600 to 650°C at the ambient temp. 15 to 35°C
- 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
- 1.0x to 8.0x continuous digital zoom
- Supports remote album access, download and quick report with APP.

▪ Specification

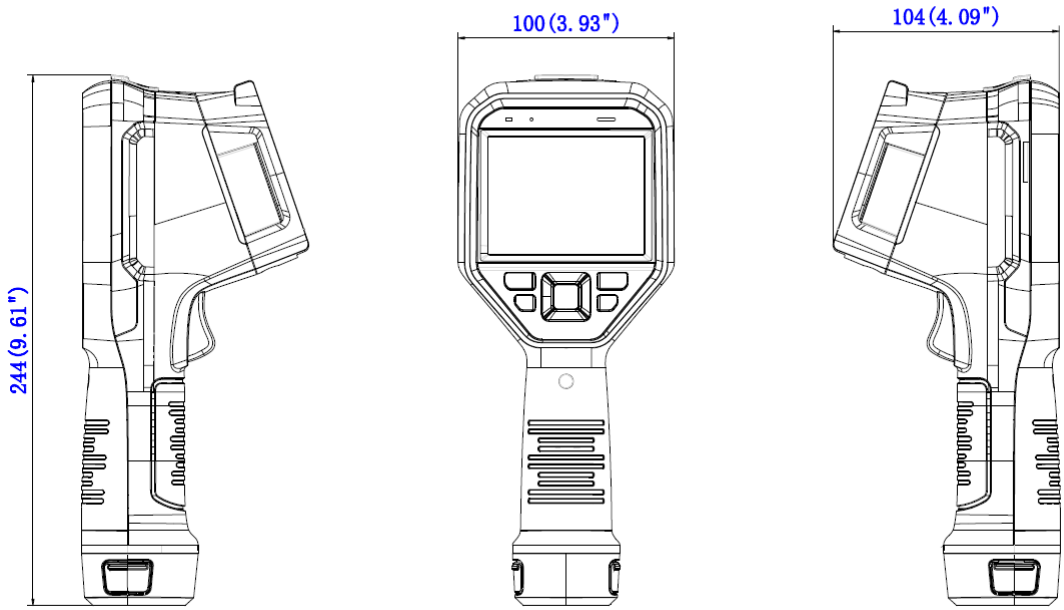
Infrared Image	
IR Resolution	256 × 192 (49,152 pixels)
SuperIR	Yes, on captured images and live view
NETD	< 40 mK (@ 25 °C, F#=1.0)
Image Frequency	25 Hz
Detector Pitch	12 μm
Spectral Range	7.5 to 14 μm
Focal Length	3.6 mm
F-number	F1.0
Field of View (FOV)	50° × 37.2°
Spatial Resolution (IFOV)	3.33 mrad
Min. Focus Distance	0.3 m (0.984 ft)
Focus Mode	Focus Free
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 100°C to 650°C（212°F to 1202°F）
Accuracy	Max ±2°C for 0 to 100°C, ±2% for 100 to 600°C, ±4% for 600 to 650°C at the ambient temp. 15 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. 60,000 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. 150h 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 32 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. 6 hours
Battery Charging Time	Approx. 4 hours fully charged
Protection Level	IP54
Drop Test Height	2 m (6.56 ft)
Safety	IEC 61010-1
EMC	EN 50130-4, EN 55032, EN IEC 61000-3-2, EN 61000-3-3
Vibration	1 g, IEC 60068-2-6
Shock	15 g, IEC 60068-2-27
Working Temperature Range	-10°C to 50°C (-4°F to 122°F)
Storage Temperature Range	-20°C to 70°C (-4°F to 158°F)
Relative Humidity	< 95% non-condensing
Weight	Approx. 660g (1.46 lb)
Dimension	244 × 100 × 104 mm (9.6 × 3.9 × 4.1 in)
Tripod Mounting	UNC ¼"-20
Warranty	3 years for the full product, 10 years for the detector, and 2 years for the battery.
Power Saving Mode	Yes

▪ Available Model

HM-TP22-3AQF/W-M20W

▪ Dimension



▪ Packaging List



QSG (× 1)



USB 2.0 A to USB Type-C Cable (× 1)



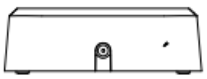
Power Supply for Battery Charger (× 1)



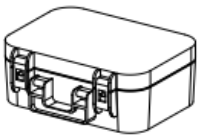
International Use Plugs (US/EU/UK/AU) for Power Supply



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