

SP120H Thermographic Handheld Camera



The HIKMICRO SP120H high-performance handheld thermal camera is an excellent choice for industrial, predictive, oil and gas, and utility maintenance inspections. It features a high-sensitivity HIKMICRO VOx detector (NETD < 20 mK) with a resolution of 1280 x 1024 and can measure temperatures up to 2200°C. This flexible and ergonomic thermal imager includes an electronic viewfinder and a 180° rotating lens, simplifying long outdoor inspections. Advanced features such as GPS and compass annotations, continuous digital zoom, and 1-Tap level and span make it easy for professionals to survey equipment and detect malfunctions. With the HIKMICRO Viewer App or HIKMICRO Analyzer software, users can transfer, analyze, and share images, as well as generate reports for free.

▪ Features

- Thermal resolution: 1280 x 1024 (1 310 720 pixels), NETD: < 20 mK (@ 30 °C, F#=1.0)
- Temperature measurement range: -40°C to 2200°C
- Accuracy: Max. ±1°C: 0 to 100°C; ±1%: 100 to 150°C
- The 90° rotating screen and the 180° rotating lens design
- 1024 x 768 OLED electronic viewfinder and auto-brightness 5.1-inch color LCD display
- 1.x to 12.x continuous digital zoom
- Manual, automatic, and 1-Tap Level and Span
- GPS & compass annotation functions
- 30 Hz image frequency
- Up to 4 hours continuous running

▪ Specification

Infrared Image	
IR Resolution	1280 × 1024 (1,310,720 pixels)
SuperIR	2560 × 2048 (5,242,880 pixels)
NETD	< 20 mK (@ 30 °C, F#=1.0)
Image Frequency	30 Hz
Detector Pitch	12 μm
Spectral Range	7.5 to 14 μm
Focal Length	L8: 112.2 mm; L12: 72.9 mm; L25: 35 mm; L50: 17.6 mm
F-number	L8: F1.3; L12: F1.2; L25: F1.1; L50: F1.1
Field of View (FOV)	L8: 7.9° × 6.3°; L12: 12° × 9.6°; L25: 25° × 20°; L50: 50° × 40°
Spatial Resolution (IFOV)	L8: 0.11 mrad; L12: 0.17 mrad; L25: 0.34 mrad; L50: 0.68 mrad
Min. Focus Distance	L8: 5m (16.4 ft); L12: 1.65m (5.41 ft); L25: 0.3m (0.98 ft); L50: 0.2m (0.66 ft)
Focus Mode	Laser Assisted AF/Continuous AF/AF/Manual Focus/Touch AF
Image Display	
Visual Camera	4096 × 3036 (13 MP)
Display	1920 × 1080 Resolution, 5.1" OLED Touch Screen, Lv 360 Cd/m ²
Screen Brightness	Manual/Auto
Viewfinder	1024 × 768 pixels OLED
Digital Zoom	1.x to 12.x continuous
Color Palettes	White Hot, Black Hot, Rainbow, Ironbow, Red Hot, Fusion, Rain, Blue Red, Blue Yellow, Bright Rainbow
Focus Mode Palette	Above/Below/Interval
Color Alarm	Above/Below/Interval/Insulation/Condensation
Image Modes	Thermal/Visual/Fusion/PIP/Blending
Measurement and Analysis	
Object Temperature Range	Range 1: -40~150°C Range 2: 100~650°C Range 3: 300~2200°C
Accuracy	Range 1: ±2°C for -40 to 0°C, ±1°C for 0 to 100°C, ±1% for 100 to 150°C Range 2: ±2°C for 0 to 100°C, ±2% for 100 to 650°C Range 3: ±2% for 300 to 2200°C
Measurement Tools	Center Spot, Hot Spot, Cold Spot User-definable: Delta T, 10 spots, 1 line, 5 rectangles, and 5 circles
Level and Span Mode	Auto/Manual/1-Tap Touch-Screen
Inspection Route	Yes
SuperScene+	Electrical Panel, PCB Inspection
Data Storage and Communication	
Image Storage Capacity	Approx. 45,000 Images
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. 100h; Radiometric video max. 9h
Video File Format	MP4 video and radiometric video
Image Format	Radiometric JPEG

Radiometric Infrared-Video Streaming (Compressed)	Over UVC, Wi-Fi
Extendable Memory Card	Extendable 128 GB 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
HDMI Interface	HDMI-D
LED Light	Yes
Laser Pointer	Yes
Laser Distance Meter	Indoor distance: 50 m (164 ft); Outdoor distance: 15 m (49 ft).
Laser	Yes, Class II, Wavelength: 635 nm; Power: < 1 mW
Battery Type	Interchangeable and rechargeable Li-ion battery
GPS & Compass	Yes
Battery Operating Time	Approx. 4 hours
Battery Charging Time	Approx. 2.5 hours fully charged
Power Saving Mode	Yes
Programmable Buttons	2
Protection Level	IP54, IEC 60529
Drop Test Height	1 m (3.28 ft), IEC 60068-2-31
Safety	IEC 61010-1
EMC	EN 301 489-1, EN 301 489-17, EN IEC 61000-6-2, EN IEC 61000-6-3, EN 61326-1
Vibration	2 g, IEC 60068-2-6
Shock	25 g, IEC 60068-2-27
Working Temperature Range	-20°C to 50°C (-4°F to 122 °F)
Storage Temperature Range	-20°C to 60°C (-4°F to 140°F)
Relative Humidity	< 95% non-condensing
Weight	Approx. 1550 g (3.42 lb) (Without lens) Approx. 1700 g (3.74 lb) (With L25 lens)
Dimension	220.5 × 151.9 × 88.1 mm (8.68 × 5.98 × 3.47 in) (Without lens)
Tripod Mounting	UNC ¼"-20
Warranty	3 years for the full product, 10 years for the detector, and 2 years for the battery.

▪ Available Model

HM-TP9CH-W/W-SP120H-L25

HM-TP9CH-W/W-SP120H-L8

HM-TP9CH-W/W-SP120H-L12/25

HM-TP9CH-W/W-SP120H-L12

HM-TP9CH-W/W-SP120H-L12/50

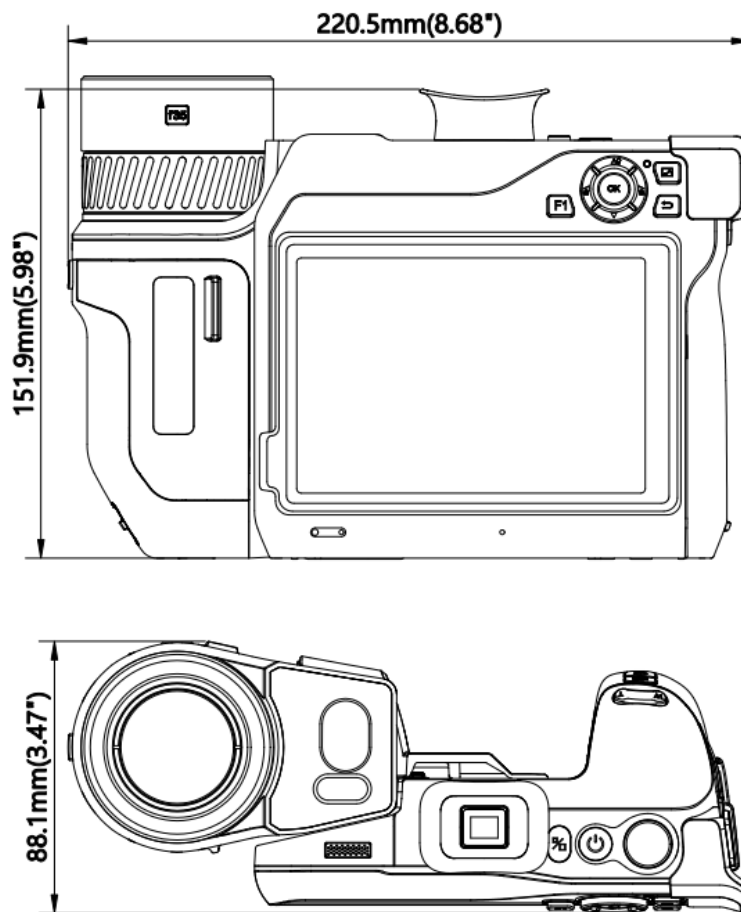
HM-TP9CH-W/W-SP120H-L50

HM-TP9CH-W/W-SP120H-L8/25

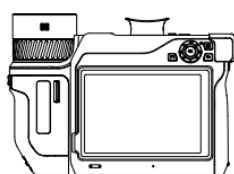
HM-TP9CH-W/W-SP120H-L25/50

HM-TP9CH-W/W-SP120H-L8/12/25

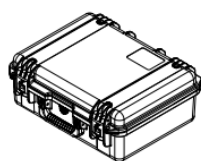
▪ Dimension



▪ Packaging List



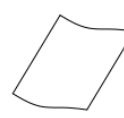
Camera(x1)



Hard Carrying Case(x1)



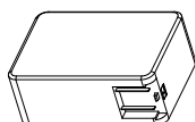
QSG(x1)



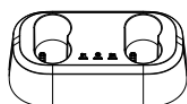
Non-Dust Cloth(x1)



Lens Caps(x1)



Adapter(x1)



Charging Base(x1)



USB Cable(x2)



Wrist Strap(x1)



Adapter Plug(x4)



Battery(x2)



HDMI Cable(x1)



Neck Strap(x1)

- Accessory
- Optional

HM-20322ZC
SP Series Battery
Charger



HM-7250DC
SP Series Battery



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.



 Hikmicro Industrial

 hikmicro_industrial

 HIKMICRO Industrial

 HIKMICRO

 info@hikmicrotech.com

 www.hikmicrotech.com

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