



Instruments Hammer Series Intelligent Thermal Camera Owner's Manual

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Introduction

With a built-in self-developed high-sensitivity IR detector with a maximum resolution of 640×480, a 13MP visible light camera, and 5 focusing modes, Hammer Series, the high-precision thermal camera designed specifically for the industrial field helps users intuitively view high-definition images and temperature details of the target, with the classic “hammer” shape. 30Hz infrared frame rate for fast and accurate access to more temperature data of moving targets, far beyond the same level of products.

Features

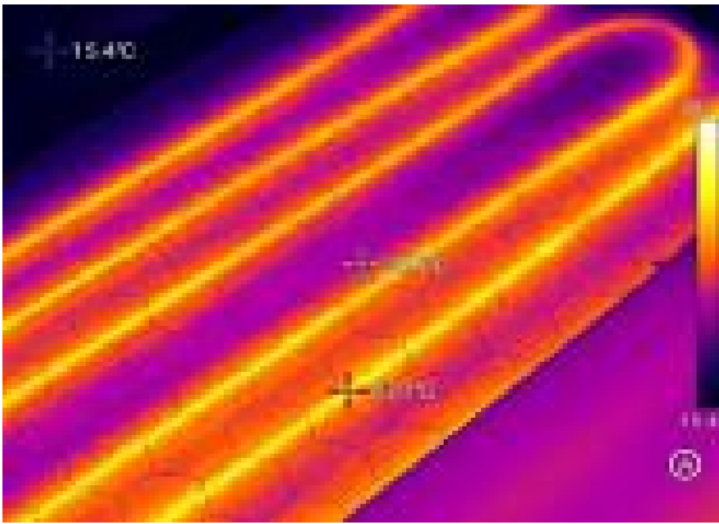
- The new generation of self-developed IR detectors with a maximum resolution of 640×480
- ASIC algorithms for pixel point details and hidden hazards
- A 13MP visible light camera and dual illumination for easy location of faults
- Up to 30Hz IR video frame rate for temperature analysis by the screenshot
- IP54 waterproof and dustproof and 2m drop resistance with military-grade quality
- OTA online upgrades to keep the device in top shape
- Built-in WIFI module for easy transfer of images to the cloud and remote instant download and analysis

Applications

- Power



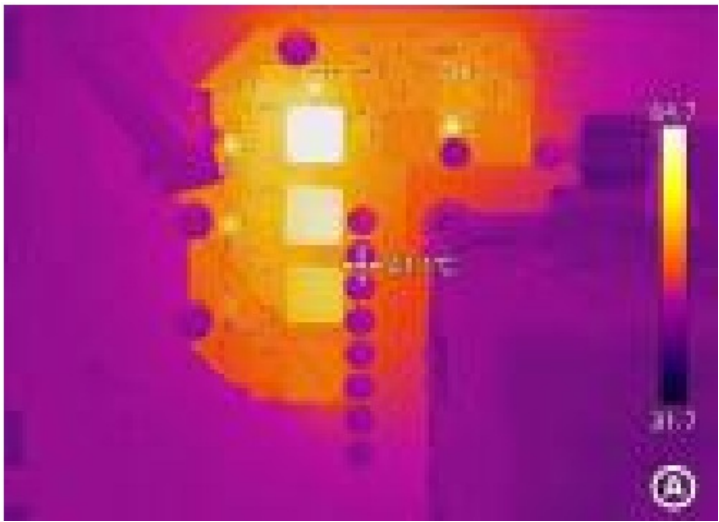
- HVAC



- Oil and Petrochemical



- Electronic Information



Specifications

Product model	H2	H3	H3+	H4	H6
Imaging and optics					
Detector type	VOx, 7.5 to 14μm				

Infrared resolution	256 × 192@12μ m	320 × 240@12μ m	384 × 288@12μ m	480 × 360@12μ m	640 × 480@12μ m
Super resolution	Yes, Upgrade to 512 × 384	Yes, Upgrade to 640 × 480	Yes, Upgrade to 768 × 576	Yes, Upgrade to 960 × 720	Yes, Upgrade to 1280 × 960
NETD	≤45 mK				≤40 mK
Infrared frame rate	30 Hz / 9 Hz				
Focal length	10.5 mm			17.7 mm	
Field of view	25° × 19°				
IFOV	1.70mrad	1.36mrad	1.13mrad	0.91mrad	0.68mrad
Minimum object distance	0.1m		0.15m		
D:S	588:1	735:1	885:1	1099:1	1470:1
Focusing mode	Manual / Automatic / Continuous auto focus				
Digital zoom	1.1x to 8x		1.1x to 10x	1.1x to 16x	1.1x to 20x
Shot recognition	Auto				
Measurement and analysis					
Measurement range	Support auto-switching:-40°C to 150°C, 0°C to 650 °C	Support auto-switching: -40°C to 150°C, 0°C to 650°C, Optional 500°C to 2000°C (High temperature lens is required)			
Measurement accuracy	±2°C or ±2%, whichever is greater				
Analysed target	Spot×5, Line×5, Area×5	Spot×8, Line×8, Area×8	Spot×10, Line×10, Area×10	Spot×12, Line×12, Area×12	Spot×16, Line×16, Area×16
Tracking / Alarm	Full screen maximum, minimum and average temperature tracking; The maximum, minimum and average temperature tracking of analyzed target; full screen temperature threshold alarm (image, voice and flash)				
Temperature measuring parameters	Emissivity, reflected temperature, target distance, humidity, atmospheric transmittance, optical transmittance, dew point				
Others	Isothermals, Smart Stroke, Intelligently calculate the area				
Image display					
Display screen	4.3', 800×480 pixel touchscreen LCD				
Digital camera	5 MP		8 MP		13 MP
Image mode	IR, VIS, MIF, PIP				
Image adjustment	Level span mode: Automatic, Semi-automatic, Manual				

Color palettes	White Hot, Iron Red, Arctic, Rainbow 2, Hot Iron, Rainbow 1, Fulgurite, Medical, Tint, Black Hot, Blue Hot, Sepia, Green Hot, Ice and Fire, Amber,Customised	
Functions		
Recording function	Photo and video (infrared & visible light)	Photo (image stitching) and video (infrared & visible light)
Cloud Services	Available	
Others	Customised physical button, Intelligent diagnosis, OTA update	
Storage and transmission		
Storage media	Local storage (64 GB) and external SD card (64 GB and up to 256 GB)	
Image storage	JPG with temp info	
Video storage	MP4 format (without temp info) can be used to record audio synchronously; lrgd (with temp info), up to 30 Hz (optional) for temperature analysis	
External interface	Type-C, SD card slot, UNC 1/4"-20 (Tripod mounting)	
WIFI	Yes, it can be connected to the mobile terminal for image and real-time video transmission	
Bluetooth	Bluetooth 5.0, support image transmission (only for Android)	
Power system		
Battery type	Lithium-ion rechargeable battery	
Battery working time	≥5 hours	≥4 hours
Charging mode	TYPE-C charging; PC/portable charger; Capable of charging while using	
Charging time	90% of full charge in 2.5 hours	
Environmental parameters		
Working temperature	-20°C to 50°C	
Storage temperature	-40°C to 60°C	
IP rating	IP54	
Drop	2m drop test	
Certification	CE, FCC, ROHS, KCC, Anabel, Damp heat test, Vibration test, Shock test, Impact test, UN38.3, MADS	
Physical parameters		
Hardware	Laser (Indication, Ranging 0.1m to 40m), Illumination, Microphone, Speaker, Electronic Compass, GPS	
Weight	≤1.15KG (with battery)	

Size (L x W x H)	292 x 125 x 125 mm		
Software kit	PC: Thermos Tools; Mobile: Tomography (iOS/Android)		
Standard	A device (with lens), Front and lens covers, Lithium-ion battery (2 pcs), Desktop charger, Power adapter, Adapter plug (for China, US, UK, Australia and Europe), Cable (double-headed TYPE-C USB), TYPE-C USB cable, Ethernet Cable, TYPE-C to RJ45, SD card (64 GB), Wrist strap, Shoulder strap, Safety box, Packaging list, Quick Start Guide, Data download card (analysis software & user manual), Certificate of approval, Factory certificate		
Options	Battery, optional lens (44°, 15°, 7°, 25°), Carrying bag, Tripod, Bluetooth earphone, Docking station	Battery, optional lens (44°, 15°, 7°, 25°, high-temperature lens), Carrying bag, Tripod, Bluetooth earphone, Docking station	Battery, optional lens (44°, 15°, 7°, 25°, high-temperature lens, macro lens), Carrying bag, Tripod, Bluetooth earphone, Docking station

Supplied by:

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Technical parameters are subject to change without notice. For the latest information.



Documents / Resources

	Instruments Hammer Series Intelligent Thermal Camera [pdf] Owner's Manual H2, H3, H3, H4, H6, Hammer Series Intelligent Thermal Camera, Hammer Series, Intelligent Thermal Camera, Thermal Camera, Camera
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References

- [User Manual](#)

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