



# GUIDE

## Refresh the temperature record at 30Hz

**Hammer Series** Intelligent Thermal Camera

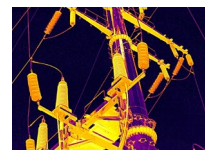
### Introduction

With a built-in self-developed high-sensitivity IR detector with a maximum resolution of 640x480, 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 Frame rate for fast and accurate access to more temperature data of moving targets, far beyond the same level of products.

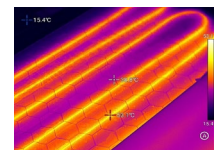
### Features

- The new generation of self-developed IR detectors with a maximum resolution of 640x480
- 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
- 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

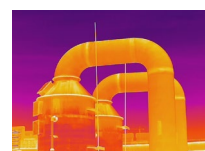
### Applications



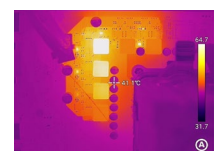
Power



HVAC



Oil and Petrochemical



Electronic Information

## Specifications

Product model	H2	H3	H3+	H4	H6
<b>Imaging and optics</b>					
Detector type	VOx, 7.5 to 14μm				
Infrared resolution	256×192@12μm	320×240@12μm	384×288@12μm	480×360@12μm	640×480@12μm
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
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
Min. object distance	0.1m		0.15m		
D:S	588:1	735:1	885:1	1099:1	1470:1
Focusing mode	Manual / Automatic / Touch autofocus / Continuous autofocus				
Digital zoom	1.1x to 8x		1.1x to 10x	1.1x to 16x	1.1x to 20x
Shot recognition	Auto				
<b>Measurement and analysis</b>					
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				
Analyzed 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)				
Parameter settings	Emissivity, reflected temperature, target distance, humidity, atmospheric transmittance, optical transmittance, dew point				
Others	Isothermals, Smart Stroke, Intelligently calculate the area				
<b>Image display</b>					
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, Customized				
<b>Functions</b>					
Recording function	Photo and Video (infrared & visible light)		Photo (image stitching) and Video (infrared & visible light)		
Cloud Services	Available				
Others	Customized physical button, Intelligent diagnosis, OTA update				
<b>Storage and transmission</b>					
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; Irgd (with temp info), up to 30 Hz (optional) for temperature analysis				
External interface	Type-C, SD card slot, UNC ¼"-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)				
<b>Power system</b>					
Battery type	Lithium-ion rechargeable battery				
Operating 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				
<b>Environmental parameters</b>					
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, Anatel, Damp heat test, Vibration test, Shock test, Impact test, UN38.3, MSDS				
<b>Physical parameters</b>					
Hardware	Laser (Indication, Ranging 0.1m to 40m), Illuminator, Microphone, Speaker, Electronic Compass, GPS				
Weight	≤1.15kg (with battery)		≤1.15KG (with battery)		≤1.15kg (with battery)
Size	292×125×125 mm				
Software kit	PC: ThermoTools; Mobile: Thermography (iOS/Android)				
Standard	A device (with lens), Front and lens covers, Lithium-ion battery (2 pcs), 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			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	Desktop charger, Battery, optional lens (44°, 15°, 7°, 25°), Carrying bog, Tripod, Bluetooth earphone, Docking station	Desktop charger, Battery, optional lens (44°, 15°, 7°, 25°, high-temperature lens), Carrying bog, Tripod, Bluetooth earphone, Docking station		Battery, optional lens (44°, 15°, 7°, 25°, high-temperature lens, macro lens), Carrying bog, Tripod, Bluetooth earphone, Docking station	