GIM

Refresh the temperature record at 50Hz

Hammer Series
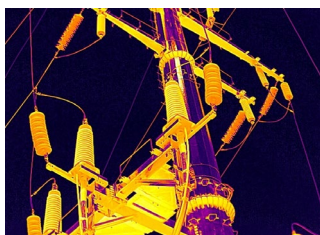
Intelligent Thermal Camera

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. 50Hz Frame rate for fast and accurate access to more temperature data of moving targets, far beyond the same level of products.
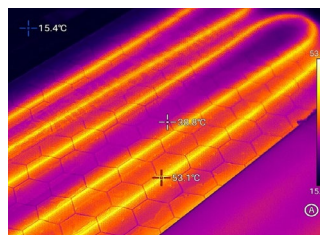
Features

- 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 50Hz IR video frame rate for temperature analysis by the screenshot
- Dual-FOV lens. One lens, two views wide & narrow switch easily
- Optional wide temperature range (-40°C to 2000°C) with a single lens
- Fast charging supported — 90% charge in just 1 hour
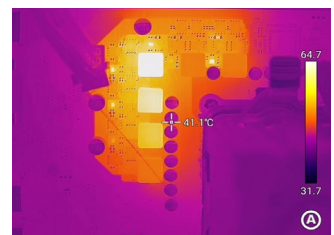- OTA firmware upgrade to keep the device up-to-date

Applications

Power

HVAC

Oil and Petrochemical

Electronic Information

www.gim-thermal.com   gim-mkt@guideir.com   Supports OEM/ODM Customized Services

Specifications

Product model	H2	H3	H3+	H4	H6
Imaging and optics					
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	30mK			20mK	
Frame rate	50Hz/9Hz				
Focal length	6.8mm	8.5mm	10.5mm	13mm	17.7mm
Field of view	25°×19°				
IFOV	1.70mrad	1.36mrad	1.13mrad	0.91mrad	0.68mrad
Min. object distance	0.15m				
D:S	588:1	735:1	885:1	1099:1	1470:1
Focusing mode	Image Autofocus / Laser Autofocus / Continuous Autofocus / Manual Focus / Touch-to-Focus				
Digital zoom	1x to 8x		1x to 10x	1x to 16x	1x to 20x
Measurement and analysis					
Measurement range	Support auto-switching: -40°C to 150°C, 0°C to 650°C, 500°C to 2000°C (Need option ultra-wide measurement range lens kit)				
Measurement accuracy	±2°C or ±2%, whichever is greater				
Analyzed target	5 in total (Spot/Line/Area)	8 in total (Spot/Line/Area)	10 in total (Spot/Line/Area)	12 in total (Spot/Line/Area)	16 in total (Spot/Line/Area)
Alarm	Full screen temperature threshold alarm (image, voice and flash)				
Others	Isothermals, Smart Stroke, Intelligently calculate the area				
Image display					
Display screen	4.3" LCD, touch screen, 800×480				
Image mode	IR, VIS, MIF, PIP				
Color palettes	15: 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			15: 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	
Image adjustment	Level span mode: Automatic, Semi-automatic, Manual,Local				
Digital camera	5MP		8MP		13MP
Functions					
Laser	Laser (Indication, Ranging 0.1m to 40m)				
Recording function	Photo and Video		Photo (image stitching) and Video (infrared & visible light)		
Cloud Services	Available				
Others	Customized physical button, OTA update				
Storage and transmission					
Storage media	Built-in (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 50 Hz (optional) for temperature analysis				
External interface	USB-C, SD card slot, Tripod socket				
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				
Operating time	5 hours			4 hours	
Environmental parameters					
Working temperature	-20°C to 50°C				
IP rating	IP54				
Drop	2m drop test				
Physical parameters					
Hardware	Illuminator×2, Microphone, Speaker, Electronic Compass, GPS				
Weight	1.24kg (with battery)				
Size	292×125×125mm				
Software kit	PC: ThermoTools; Mobile: Thermography (iOS/Android)				
Standard	A device (with lens), Lens front and rear caps, Lithium-ion batteries (2 pcs), Desktop charger, Power adapter, Adapter plug, USB-C to USB-C cable, USB-A to USB-C cable, USB-C to Ethernet Adapter, SD card (64 GB), Wrist strap, Shoulder strap, Carrying bag, Safety box, Quick start guide, Data download card (analysis software & user manual), Factory inspection report, Calibration certificate, Warranty card				
Options	Optional lenses: Wide-angle (44°), Medium telephoto (15°), Telephoto (7°), DFOV (25°+15°/25°+45°), Ultra-wide measurement range lens kit (25°/15°/7°), Macro; Docking station, Tripod, Lab stand, Ethernet cable				

Optional lens information list

Model	H2	H3	H3+	H4	H6
Standard: Standard Lens (25°) **Optional: Ultra-wide measurement range lens kit (25°)**					
Focal length	6.8mm	8.5mm	10.5mm	13.0 mm	17.7 mm
FOV	25°×19°	25°×19°	25°×19°	25°×19°	25°×19°
IFOV	1.7mrad	1.36mrad	1.14mrad	0.91 mrad	0.68 mrad
Min focus distance	0.15m	0.15m	0.15m	0.15m	0.15m
Option1: Medium Telephoto (15°) **Option2: Ultra-wide measurement range lens kit (15°)**					
Focal length	11.7mm	14.6mm	17.7mm	21.7 mm	29.0 mm
FOV	15°×11°	15°×11°	15°×11°	15°×11°	15°×11°
IFOV	1.02mrad	0.82mrad	0.68mrad	0.55 mrad	0.41 mrad
Min focus distance	1m	1m	1m	1m	1m
Option1: Telephoto (7°) **Option2: Ultra-wide measurement range lens kit (7°)**					
Focal length	25.1mm	31.4mm	37.5mm	40.1 mm	62.9 mm
FOV	7°×5°	7°×5°	7°×5°	7°×5°	7°×5°
IFOV	0.48mrad	0.38mrad	0.32mrad	0.25 mrad	0.19 mrad
Min focus distance	3m	3m	3m	3m	3m
Wide Angle (44°)					
Focal length	4mm	5mm	6mm	7.5 mm	10.0 mm
FOV	44°×33°	44°×33°	44°×33°	44°×33°	44°×33°
IFOV	3.01mrad	2.41mrad	2.00mrad	1.60 mrad	1.20 mrad
Min focus distance	0.1m	0.1m	0.1m	0.1m	0.1m
DFOV Lens (Standard + Medium telephoto lens)					
Focal length	6.8mm/11.7mm	8.5mm/14.6mm	10.5mm/11.7mm	13.0mm/21.7mm	17.7mm/29mm
FOV	25°×19°/15°×11°	25°×19°/15°×11°	25°×19°/15°×11°	25°×19°/15°×11°	25°×19°/15°×11°
IFOV	584:1/970:1	730:1/1219:1	885:1/1449: 1	1075:1/1818:1	1470:1/2439:1
Min focus distance	0.15m/1m	0.15m/1m	0.15m/1m	0.15m/1m	0.15m/1m
DFOV Lens (Standard + Wide-angle lens)					
Focal length	6.8mm/4.0mm	8.5mm/5.0mm	10.5mm/6.0mm	13.0mm/7.5mm	17.7mm/10.0mm
FOV	25°×19°/44°×33°	25°×19°/44°×33°	25°×19°/44°×33°	25°×19°/44°×33°	25°×19°/44°×33°
IFOV	1.70mrad/3.00mrad	1.36mrad/2.40mrad	1.10mrad/1.88mrad	0.91mrad/1.64mrad	0.69mrad/1.18mrad
Min focus distance	0.15m/0.1m	0.15m/0.1m	0.15m/0.1m	0.15m/0.15m	0.15m/0.15m
3X Macro Lens					
Focal Length	/	/	17.9mm	13.4mm	17.9mm
IFOV			63.0um	50.4um	37.8um
Min focus distance			50mm	50mm	50mm
F-number			1.1	1.1	1.1
Magnification			0.32x	0.32x	0.32x