APEX VISION

Thermal

Guide

50Hz - Unprecedented real-time temperature data update speed

Hammer II Series Intelligent Thermal Camera

Introduction

Hammer II Series -- High-Precision Hammer-Style Infrared Camera is specifically designed for industrial inspections and electrical grid maintenance. Equipped with a proprietary self-developed high-sensitivity detector (NETD<15mK), its 50Hz high frame rate and wide temperature measurement range ensure precise capture of abnormal heating points. Equipped with a single-lens dual-FOV design, it instantly switches between wide-angle and narrow-angle views without lens changes. This enables seamless adaptation to complex scenarios, efficiently handling both long-distance inspections and close-range temperature measurements.
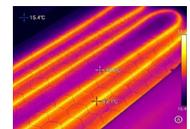
Features

- ◉ Next-gen infrared imaging system APEXVISION for ultra-clarity & precision
- ◉ 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
- ◉ Fast charging supported — 90% charge in just 1 hour
- ◉ OTA firmware upgrade to keep the device up-to-date
- ◉ Optional Dual-FOV Lens with instant wide/narrow FOV switching.
- ◉ Optional Wide Temperature Range Lens supporting a temperature range from −40°C to 2000°C.

Applications

Power

HVAC

Oil and Petrochemical

Electronic Information

Specifications

Product model	H2S	H3S	H3+S	H4S	H6S
Imaging and optics					
Core technology	Equipped with full ApexVision S1 system architecture: Detector ApexCore S1 + Platform Nexus 1.0 + Algorithm SharpIR 2.0				
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	15mK				
Frame rate	50Hz/9Hz				
Focal length	6.8mm	8.5mm	10.5mm	13.0mm	17.7mm
Field of view	25°×19°				
IFOV	1.70mrad	1.36mrad	1.14mrad	0.91mrad	0.68mrad
Min. object distance	0.15m				
D:S	588:1	735:1	877:1	1099:1	1471:1
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
Measurement and analysis					
Measurement range	Support auto-switching: -40°C to 150°C, 0°C to 650°C, 500°C to 2000°C (RangeMax Ultra-wide measurement range lens kit is required)				
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, Color and Flash)				
Others	Isothermals, Smart stroke, Intelligently calculate the area, Color highlighting				
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 dimming				
Digital camera	5MP		8MP		13MP
Functions					
Laser	Laser indication; Laser 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				
Wi-Fi	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				
Environmental parameters					
Working temperature	-20°C to 50°C				
IP rating	IP54				
Drop	2m drop test				
Physical parameters					
Hardware	Wi-Fi, Illuminator×2, Microphone, Speaker, Electronic Compass, GPS				
Weight	1.24KG (with standard lens and battery)				
Size	292×125×125mm				
Software kit	PC: ThermoTools; Mobile: FocusIR (iOS/Android)				
Standard	A device (with lens), Lens front and back cover, Lithium-ion battery (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, Warranty Card, Inspection Report, Calibration Certificate				
Options	Optional lenses: Wide-angle (44°), Medium Telephoto (15°), Telephoto (7°), TwinView DFOV (25°+15° / 25°+45°), RangeMax Ultra-wide Kit (25° / 15° / 7°); Tripod, Docking station, Ethernet cable		Optional lenses: Wide-angle (44°), Medium Telephoto (15°), Telephoto (7°), TwinView DFOV (25°+15° / 25°+45°), RangeMax Ultra-wide Kit (25° / 15° / 7°), Macro; Tripod, Docking station, Ethernet cable		