

Handheld Thermal Imager — HIKMICRO G41

480×360 IR Resolution · Laser Autofocus · -20 to 650°C Range · IP54 · Wi-Fi

General Description

The **HIKMICRO G41** is a professional handheld thermal imager engineered for high-precision industrial inspection. Its **480×360 pixel VOx detector** (172,800 effective pixels) with **NETD < 35 mK** delivers crisp thermal images even under minimal temperature contrast. **SuperIR technology** boosts displayed resolution to 960×720 pixels on captured images.

The **five-mode autofocus system** — Laser-Assisted AF, Continuous AF, Single AF, Manual Focus and Touch AF — with ~2-second focus speed keeps every image sharp in the field. The **built-in laser distance meter** measures distance and area remotely; integrated **GPS and compass** automatically geotag every acquisition.

The rugged **IP54** housing with **2 m drop resistance** and -20 to +50°C operating range makes it dependable in any industrial environment. The standard kit includes **3 hot-swappable batteries** and a dual charging base for over 12 hours of uninterrupted operation.



Key Features

480×360 VOx · SuperIR 960×720	172,800 pixels, NETD <35 mK. SuperIR boosts displayed resolution to 960×720 px on captures.
5 Autofocus Modes · ~2 s	Laser-Assisted AF, Continuous AF, AF, Manual Focus, Touch AF. ~2 s speed. Min. distance: 0.3 m.
Range -20 to 650°C · Accuracy ±1°C	Two ranges: -20 to 150°C (±1°C from 0 to 100°C) and 0 to 650°C. Up to 10 spots, line, shapes.
Built-in Laser Distance Meter	50 m (indoor) / 10 m (outdoor). Remote distance & area measurement. Simplifies setup and reporting.
GPS · Compass · Full Annotations	Coordinates and direction auto-tagged on every image. Voice (60 s), text (200 chars), QR scanning.
Radiometric Video · Wi-Fi · HDMI	Full radiometric MP4 video. UVC streaming over USB-C and dual-band Wi-Fi 802.11 b/g/n.
IP54 · 2 m drop · -20 to +50°C	Certified IP54 dust and water protection. 2 m drop resistance (IEC 60068-2-31). Shock 25g.
3 batteries included · >12 h runtime	3 hot-swap Li-Ion batteries + dual charging base included. ~4 h/battery, >12 h total.

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Technical Datasheet — HIKMICRO G41

G41 | VOx 480×360 px · SuperIR 960×720 px | -20 to 650°C | IP54 | Wi-Fi | GPS

INFRARED IMAGE & DISPLAY

IR Resolution	480 × 360 px — 172,800 pixels	SuperIR (captured)	960 × 720 px — 691,200 pixels
NETD	< 35 mK (@ 25°C, F#=1.0)	Image Frequency	50 Hz
Detector Pitch	17 µm	Spectral Range	7.5 – 14 µm
Focal Length	25 mm	F-number	F 1.0
Field of View (FOV)	18.7° × 14°	IFOV	0.68 mrad
Min. Focus Distance	0.3 m	Focus Mode	Laser-Assisted AF · Continuous AF · AF · Manual Focus · Touch AF
Focus Speed	~2 seconds	Visual Camera	3264 × 2448 — 8 MP
Display	4.3" LCD Touchscreen — 800 × 480 px	Digital Zoom	1.0× – 8.0× continuous
Image Modes	Infrared / Visual / Fusion / PIP / Blending	Color Palettes	White Hot · Black Hot · Rainbow · Ironbow · Red Hot · Fusion · Rain · Blue Red
Color Alarm	Above / Below / Interval / Insulation / Condensation		

MEASUREMENT & ANALYSIS

Temperature Range	-20 to 150°C 0 to 650°C
Accuracy -20 to 0°C	± 2°C
Accuracy 0 to 100°C	± 1°C
Accuracy 100 to 150°C	± 1%
Accuracy 0 to 650°C	± 2°C (0–100°C) ± 2% (100–650°C)
Measurement Tools	Centre/Hot/Cold Spot, ΔT, 10 spots, 1 line, 5 rectangles, 5 circles
Level & Span	Auto / Manual / 1-Tap
Inspection Route	Yes

DATA STORAGE & COMMUNICATION

SD included / max	64 GB included · max 128 GB
Image Capacity	~60,000 images
Image Format	Radiometric JPEG
Video Format	MP4 + radiometric video
Video Capacity	~54 hours
Annotations	Voice 60 s · Text 200 chars · QR code
UVC Streaming	Over USB-C and Wi-Fi

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CONNECTIVITY

Wi-Fi	802.11 b/g/n — 2.4 GHz & 5 GHz	Bluetooth	4.2
USB	USB Type-C	HDMI	Yes — Mini HDMI cable included
GPS / Compass	Yes / Yes	Laser Distance Meter	50 m indoor / 10 m outdoor — Class II, 635 nm, <1 mW
LED Light	Yes	Laser Pointer	Yes

PHYSICAL & GENERAL SPECIFICATIONS

Battery	Hot-swap Li-Ion · ~4 h/battery · 3 batteries included	Charging Time	~4 hours
Protection Level	IP54 (IEC 60529)	Drop Test	2 m (IEC 60068-2-31)
Vibration / Shock	2g (IEC 60068-2-6) / 25g (IEC 60068-2-27)	Operating Temperature	-20°C to +50°C
Storage Temperature	-20°C to +60°C	Relative Humidity	< 95% non-condensing
Weight	~1,058 g (2.33 lb)	Dimensions	284.7 × 120.6 × 124.5 mm
Tripod Mount	UNC ¼"-20	Certifications	IEC 61010-1 · CE · EN IEC 61326-1/2-2
Warranty	3 years · 10 years detector · 2 years battery		

INCLUDED ACCESSORIES & SOFTWARE

Dual Charging Base	Charges 2 batteries simultaneously — included as standard
Hot-swap Batteries ×3	Li-Ion ~4 h each — included as standard
64 GB SD Card	Included — expandable to 128 GB
Hard Carry Case	Included as standard
Optional Lenses	0.5× wide-angle · 2× telephoto · 3.3× telephoto
HIKMICRO Analyzer	Windows software for advanced analysis and PDF reports — free
HIKMICRO Viewer	Mobile app for image transfer — free

Technical Insights

Building Diagnostics & Pathology Analysis

The G41 detects **thermal bridges**, moisture infiltration, rising damp, plaster detachments and insulation deficiencies with ±1°C accuracy in the 0–100°C range — compliant with EN ISO 6781 and EN 13187 for building thermography. GPS geotags every image for expert reports and EPC documentation.

Radiometric Analysis & Professional Reports

Every captured JPEG is **fully radiometric** — each pixel stores its absolute temperature. The free **HIKMICRO Analyzer** (Windows) generates professional PDF reports with side-by-side visible/thermal images, isotherms and data tables — ready for expert reports and energy diagnostics.