

QL-ThermaSight

QUAKELOGIC

HANDHELD THERMAL IMAGING CAMERA



QL-ThermaSight

Handheld Thermal Imaging Camera



PROFESSIONAL THERMAL IMAGING AND ANALYSIS

The QL-ThermaSight is a professional handheld thermal imaging camera engineered for inspection, maintenance, research, utility, industrial, and defense applications demanding exceptional image quality and accurate temperature measurement. It pairs a 640×512 uncooled VOx detector with ultra-low 15 mK thermal sensitivity, interchangeable wide- and standard-angle optics, and a 5.5-inch HD touchscreen. Radiometric capture, visible-light imaging, and a complete field-ready accessory package deliver versatile, single-operator thermal inspection across demanding environments.

- 640×512 uncooled VOx detector with 15 mK NETD resolves fine thermal detail, exposing faults and anomalies missed by lower-sensitivity cameras.
- Interchangeable wide-angle and standard-angle optics adapt one camera to broad-area scans and distant targets, eliminating the need for multiple instruments.
- $\pm 1^\circ\text{C}$ thermographic accuracy across a -40°C to $+2500^\circ\text{C}$ range supports reliable measurement from cold-fault detection to high-temperature process monitoring.
- Complete kit with dual batteries, charger, hard case, and calibration documentation delivers audit-ready, field-deployable inspection capability out of the box.

STANDARD FEATURES »

- 640×512 IR Detector
- Wide-Angle Lens
- Standard-Angle Lens
- 5.5-inch Touchscreen
- OLED Viewfinder
- 13 MP Visible Camera
- Radiometric Capture
- Thermal Video Recording
- Laser Pointer & Ranging
- 40× Digital Zoom
- Two Li-ion Batteries
- Desktop Battery Charger
- Hard Transport Case
- Front & Rear Lens Covers
- SD Card Storage
- Printed User Manual
- Calibration Certificate
- Inspection Report
- Warranty Documentation
- Multiple Color Palettes

Key Features

- 640 × 512 uncooled VOx infrared detector with 12 μm pixel pitch captures high-resolution thermal imagery for detailed fault identification and reporting.
- Thermal sensitivity of 15 mK or better at 30°C reveals subtle temperature gradients, enabling early detection of developing electrical and mechanical faults.
- Interchangeable wide-angle 45° and standard-angle 25° × 20° lenses adapt the camera to close-range surveys or distant, narrow-field targets.
- Hybrid manual, automatic, touch, and continuous autofocus ensures sharp thermal images quickly across varied working distances and inspection conditions.
- 5.5-inch 1920 × 1080 capacitive touchscreen plus integrated OLED viewfinder deliver clear composition and analysis in bright field environments.
- Radiometric image capture and thermal video recording preserve full temperature data for later analysis, trending, and documented inspection evidence.
- Integrated 13 MP visible-light camera with Fusion and Picture-in-Picture modes overlays thermal and visual detail for faster fault localization.
- Laser pointer and laser ranging combined with 40× digital zoom help operators target, identify, and document distant or inaccessible components.
- IP54-rated body and -20°C to +50°C operating range support reliable use in dusty, wet, and temperature-variable field conditions.

PRODUCT FEATURES

Infrared Detector

640 × 512 pixel uncooled VOx detector · 12 μm pixel pitch, 7.5–14 μm spectral range · NETD 15 mK or better at 30°C

Measurement

Range -40°C to +2500°C, auto range switching · Accuracy ±1°C or ±1% of reading · Radiometric image and video capture

Optics

Interchangeable wide-angle lens ~45° FOV · Standard-angle lens ~25° × 20° FOV · Hybrid manual, auto, touch and continuous autofocus

Display & Viewfinder

5.5-inch capacitive touchscreen, 1920 × 1080 · Integrated OLED electronic viewfinder · Digital zoom up to 40×

Imaging Modes

Thermal, Visible, Fusion, Picture-in-Picture · White Hot, Black Hot, Red Hot palettes · 13 MP integrated visible-light camera

Interfaces & Power

USB-C, Micro HDMI, SD card, DC inputs · Rechargeable lithium-ion, up to 4 h per battery · Laser pointer and laser ranging

Environmental

IP54 environmental protection rating · Operating temperature -20°C to +50°C · Handheld, single-operator design

For more information about the features, specifications, and available configurations of the QL-ThermaSight, please contact QuakeLogic.

MACHINE CONFIGURATION

COMPONENT	CONFIGURATION
Detector	Uncooled VOx, 640 × 512 pixels, 12 μm pitch
Spectral Range	7.5–14 μm (LWIR)
Primary Optics	Interchangeable wide-angle lens, ~45° FOV
Secondary Optics	Interchangeable standard-angle lens, ~25° × 20° FOV
Focus System	Hybrid manual, auto, touch, continuous autofocus
Display	5.5-inch capacitive touchscreen, 1920 × 1080
Viewfinder	Integrated OLED electronic viewfinder
Visible Camera	Integrated 13 MP digital camera
Storage	Removable high-capacity SD card
Power	Rechargeable lithium-ion battery, dual supplied
Interfaces	USB-C, Micro HDMI, SD slot, DC external
Environmental Rating	IP54, -20°C to +50°C operation

CAPACITY

SPECIFICATION	VALUE
Detector Resolution	640 × 512 pixels
Temperature Range	-40°C to +2500°C
Thermal Sensitivity (NETD)	15 mK or better at 30°C
Measurement Accuracy	±1°C or ±1% of reading
Wide-Angle Field of View	~45°
Standard-Angle Field of View	~25° × 20°
Digital Zoom	Up to 40×
Battery Operating Time	Up to 4 hours per battery
Visible Camera Resolution	13 MP or higher

OPTIONAL FEATURES & ACCESSORIES

ADDITIONAL INTERCHANGEABLE OPTICS

Expands the optical set for telephoto or macro thermal inspection, extending measurement range across additional working distances and target sizes.

EXTRA BATTERY PACK

Provides additional rechargeable lithium-ion capacity for extended field shifts, minimizing downtime during long inspection or survey campaigns.

HIGH-CAPACITY SD STORAGE

Increases onboard capacity for radiometric images and thermal video, supporting large inspection datasets without frequent offloading.

THERMAL ANALYSIS SOFTWARE

Desktop reporting suite for post-processing radiometric data, generating documented inspection reports and temperature trend analysis.

TECHNICAL SPECIFICATIONS

SPECIFICATION	DESCRIPTION
Camera Type	Handheld portable thermal imaging camera
Operation	Single-operator handheld
Detector Type	Uncooled VOx microbolometer
Detector Resolution	640 × 512 pixels
Pixel Pitch	12 µm
Spectral Range	7.5–14 µm
Thermal Sensitivity (NETD)	15 mK or better at 30°C
Measurement Accuracy	±1°C or ±1% of reading
Temperature Range	–40°C to +2500°C, auto range switching
Wide-Angle Lens FOV	~45° (interchangeable)
Standard-Angle Lens FOV	~25° × 20° (interchangeable)
Focus	Manual, auto, touch, continuous autofocus
Display	5.5-inch capacitive touchscreen
Display Resolution	1920 × 1080
Viewfinder	Integrated OLED electronic
Digital Zoom	Up to 40×
Visible-Light Camera	13 MP or higher

SPECIFICATION	DESCRIPTION
Image Modes	Thermal, Visible, Fusion, Picture-in-Picture
Color Palettes	White Hot, Black Hot, Red Hot, and more
Image Capture	Radiometric still capture
Video	Thermal video recording
Laser	Integrated pointer and laser ranging
Storage	Removable high-capacity SD card
Interfaces	USB-C, Micro HDMI, SD slot, DC external
Bluetooth	Disabled in supplied configuration
Battery	Rechargeable lithium-ion
Battery Operating Time	Up to 4 hours per battery
Batteries Supplied	Two rechargeable batteries
Charger	Desktop battery charger included
Transport Case	Hard protective case included
Lens Protection	Front and rear lens covers included
Environmental Rating	IP54
Operating Temperature	–20°C to +50°C
Documentation	Manual, calibration cert, inspection report, warranty

Corporate Headquarters:**QUAKELOGIC INC.**

2008 Opportunity Dr., Suite 130
Roseville, CA 95678, USA

Monday – Friday

9:00 AM – 5:00 PM (PST/PDT)

Contact Us:

Phone: +1 (916) 899-0391

Email: sales@quakelogic.net

Web: products.quakelogic.net

About QuakeLogic:

QuakeLogic Inc. is a California-based engineering and technology company providing innovative, reliable, high-quality solutions to customers worldwide.

Our Commitment

We are committed to quality, innovation, and customer satisfaction – building lasting partnerships through reliable solutions and dependable support.