

IRDL708 Series

Thermal imaging cameras



Temperature measurement up to 2000 °C with infrared and visible fusion

IRDL708

Portable thermal imaging camera, 640 × 480

amperis

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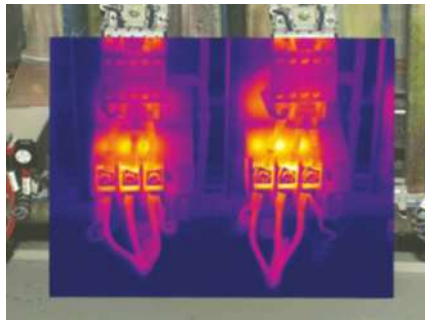
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High-resolution thermography for industry, with IR-visible fusion on a large rotating touchscreen.

Product overview



Side view of the camera



Electrical connections inspected by thermal image

High resolution without cooling

The IRDL708 Series is built around an uncooled 640×480 microbolometer with a thermal sensitivity (NETD) of ≤ 0.02 °C, delivering detailed thermal images from -40 °C up to $+650$ °C, extendable to $+1200$ °C or $+2000$ °C.

Fusion of infrared and visible

A 5 MP visible camera with LED light complements the detector: infrared and visible images are fused on screen and stored linked, so each finding is documented with full context.

Main features

- Large multi-rotated touchscreen and built-in viewfinder.
- Video recording in H.264 or original radiometric data; JPEG backup.
- Sound and light alarms; voice and text annotation.
- Network interface for real-time transmission.
- Built-in class 2 laser pointer.
- Light field camera: 1.75 kg with battery for 3 h of continuous use.



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Applications and analysis functions

Applications

- Inspection of electrical installations and substations.
- Power plants, railway and petrochemical industry.
- Metallurgy, construction and scientific research.

On-screen analysis

Up to 10 movable areas with maximum, minimum and average temperature, 5 measurement lines, profiles, isotherms and temperature difference, with voice and colour alarms; emissivity, background and atmospheric corrections complete the measurement.

Documentation

Radiometric images and video are stored on SD with IR-visible linking, 40 s voice notes and user text; results transfer via the network interface or video output.



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IRDL708 – TECHNICAL SPECIFICATIONS

Detector	Uncooled FPA microbolometer, 640 × 480
Spectral range	8-14 µm
Thermal sensitivity (NETD)	≤ 0.02 °C at 30 °C
Field of view / min. focus	24° × 18° / 0.1 m
Spatial resolution (IFOV)	0.65 mrad
Frame rate and focus	50/60 Hz; automatic or electronic focus
Built-in visible camera	5 MP CMOS with LED light
Displays	Built-in colour viewfinder; large multi-rotated colour touchscreen, 640 × 480
Temperature range	-40 °C to +650 °C; optional up to +1200 °C or +2000 °C
Accuracy	±2 °C or ±2 % of reading, whichever is greater
Analysis functions	Up to 10 movable areas (max/min/average), 5 lines; profile, isotherms, difference, alarms (voice, colour)
Image control	11 palettes; automatic/manual gain and brightness; IR and visible fusion
Corrections	Emissivity 0.01-1.0; background temperature; atmospheric transmittance
Storage	8 GB SD (TF), up to 32 GB; automatic/manual saving with IR-visible link
File formats	Infrared JPEG (14-bit with data) and MPEG-4 or H.264; visible JPEG (picture-in-picture)
Annotation	40 s voice notes (built-in microphone) and user-defined text
Laser pointer	Class 2, 1 mW / 635 nm (red)
Power supply	Rechargeable Li-Ion, 3 h continuous; smart charger or on-line adaptor; external 12 V DC
Environment	-15 °C to +50 °C; ≤ 95 % RH (non-condensing); IP54
Weight and dimensions	1.75 kg; 250 × 180 × 150 mm
Interfaces	Network interface; PAL/NTSC video output; audio output; earphone/RS232



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