

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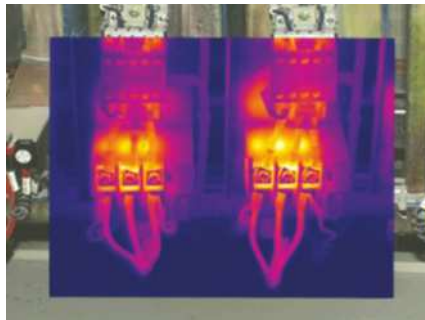
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High-resolution thermography for industry, with IR-visible fusion on a large rotating touchscreen.

## 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  $640 \times 480$  microbolometer with a thermal sensitivity (NETD) of  $\leq 0.02$  °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

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



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