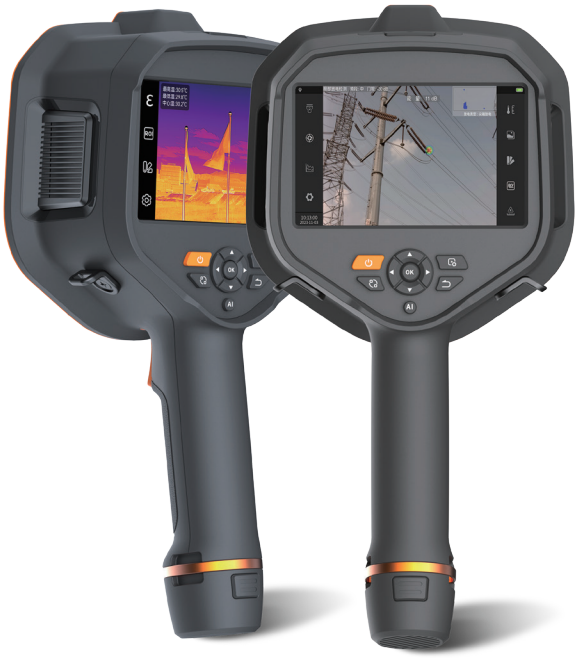
RA128
Handheld Acoustic Imaging Camera

The Handheld Acoustic Imaging Camera (RA128) uses a microphone array to measure sound field distribution and integrates infrared imaging for multi-method fault detection.

It supports audible and ultrasonic frequencies, enabling sound source localization, abnormal sound testing, and tracking of sound source trajectories. Effective for detecting stationary and moving sound sources, this device is primarily applied in high-pressure gas leak detection and partial discharge detection in electrical equipment.



Product Highlights

- Integrated acoustic-visual design
- Intuitive one-handed operation
- Portable and easily deployable
- Detachable battery for extended runtime
- Fast and stable imaging without ghosting
- Infrared imaging function
- AI partial discharge type analysis
- Intelligent offline analysis
- Wideband audible and ultrasonic monitoring

Specifications

Acoustic Imaging Parameters	
Number of Channels	128
Sensor Type	MEMS Digital Microphone
Sensor Dynamic Range	30dB~120dB
Frequency Band Range	2kHz~200kHz
Detection Distance	0.5m~150m
Application Scenarios	Partial discharge/Gas leak detection
Minimum Imaging Sensitivity (1m)	10kHz: 1dB SPL; 20kHz: -10dB SPL; 30kHz: -6dB SPL; 40kHz: 3dB SPL; 50kHz: 6dB SPL; 60kHz: 20dB SPL
Discharge Detection Performance	Minimum detectable discharge: 200pc (detection distance: 3 meters)
Leak Detection Sensitivity	Detection distance not less than 8m (pressure 120kPa, 0.83mL/s leak rate)
Multi-target Minimum Lateral Resolution	150mm (18kHz, 1m, 94dB SPL)
Multi-target Maximum Detectable Sound Pressure Difference	Not less than 18dB (18kHz, 1m, 94dB SPL)
Optical Image Parameters	
Screen Resolution	800×480
Image Resolution	Up to 3840×2160
Video Resolution	Up to 1920×1080
Video Frame Rate	60FPS
Imaging Frame Rate	30FPS
Camera Focal Length	Fixed focal length: 4.0mm
Screen FOV	72°
Infrared Module Resolution	640×512
Infrared Lens Focal Length	9.1mm
Infrared Lens FOV	32.9° ×26.6°
Infrared Temperature Measurement Range	-20°C~150°C/150°C~550°C, switchable
Infrared Temperature Measurement Accuracy	±2°C or ±2% (whichever is greater) @ 23°C±5°C
NETD (Sensitivity)	⩽50mK@F1.0@25°C
Physical & Electrical Parameters	
Dimensions	309.4mm×157.4mm×88mm
Weight	Approx. 1.1kg
Battery Capacity	Lithium-ion battery: 7.4V/5000mAh; Operating time: Not less than 5h
Power Adapter Charging Parameters	DC5V/3A
Display Size	5-inch LCD screen
Touch Screen	Capacitive
Data Transmission Interface	USB/WIFI
Amount of Built-in Memory	64GB (expandable)
Environment Adaptability	
Operating Temperature	-20°C~+55°C
Storage Temperature	-40°C~+85°C
Operating Humidity	10%~95%, non-condensing
Ingress Protection Rating	Not less than IP51
EMC Reliability Indicators	Electrostatic discharge immunity, GB/T17626.2-2018 Level 4, Class A; Power frequency magnetic field immunity, GB/T17626.8-2006 Level 4, Class A Pulse magnetic field immunity, GB/T17626.9-2011 Level 4, Class A
Relevant Certifications	ROHS certification, CE certification
Other Functions	
Infrared Temperature Measurement	Area and point temperature measurement
Microphone Self-diagnosis	Supports 128-channel detection
Offline Analysis/Upgrade	Support
Cloud Online Analysis/Upgrade	Support
PRPD Pattern	Support
Discharge Type Prediction	Support
Leak Rate Estimation	Support
Leak Loss Estimation	Support
Multi-target	2
Digital Zoom	8×
Multi-language Mode	Supports Simplified Chinese, English, Thai, Spanish, Turkish, German, Russian, Czech, Korean, Portuguese, Polish, Hungarian, Italian, French
Acoustic Calibration	Support
Analysis Software	Supports secondary analysis of device acoustic field data and report generation