

Handheld Acoustic Camera

Key Features

- 128 Low-noise MEMS microphones
- Gas leakage detection
- Vacuum leak detection
- Multiple sound sources detection
- Real-time sound source localization
- Laser rangefinder



HA3A

Overview

Hertzinno's third-generation acoustic camera, HA3A, integrates a 128-channel MEMS microphone array with multi-mode positioning and upgraded AI algorithms, delivering a lighter, faster, and smarter solution for gas leakage detection, and mechanical fault diagnosis.

Designed for precision and efficiency, the camera empowers industrial professionals to capture and quantify complex acoustic sources in real-world scenarios.

An optimized 128-channel circular array design, paired with beamforming algorithms, achieves $\pm 1^\circ$ localization accuracy ($\leq 1\text{cm}$ error at 1 m distance, 40kHz), enabling the clear differentiation of dense acoustic sources.

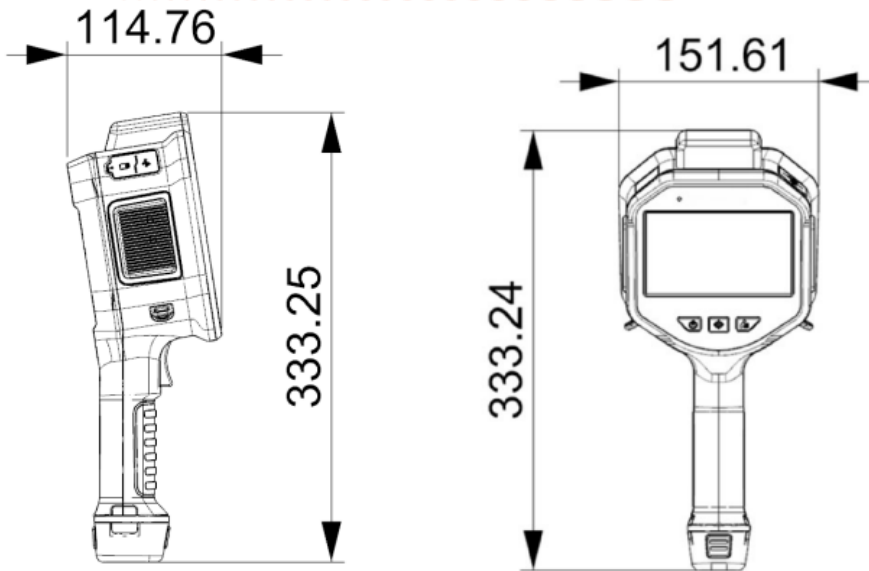


The camera supports real-time monitoring of audio signals via Bluetooth connection to headphones. It also supports the online display of frequency spectrum diagrams. The camera supports one-click analysis and one-click forwarding functions on the device.

After completing the report analysis, users can export the file via Wi-Fi, Bluetooth, or a USB interface. The camera supports file management and file notes, allowing users to add notes to their photos in a variety of ways, including text, voice, photos, and tags.

Model	HA3A
Acoustic	
Microphones	128 Digital MEMS Microphones
Frequency Bandwidth	2k ~ 100kHz
Dynamic Range	-30 dB ~ 120 dB
Minimum Imaging Sensitivity	10 kHz: 3 dB SPL 20 kHz: -10 dB SPL 40 kHz: 3 dB SPL 60 kHz: 20 dB SPL
Operating Distance	0.3 m ~ 150 m
Dynamic Range of Multiple Targets	0 dB ~ 18 dB
Space Resolution	≤1 cm @1 m, 40 kHz
Microphone Self-Check	Support
General	
Optical Camera	13 MP
Camera FOV	72°±3°
Fill Light	LED Light
Image Resolution	4K (3840 × 2160), 1080P
Digital Zoom	1/2/4/8
Video Image Resolution	1920 × 1080 @ 30 fps, 1920 × 1080 @ 60 fps
Storage	128 GB micro-SD Card
Annotation	Text, Voice, Photo, Tags
E-Compass	Support
Display	5-inch, Capacitive Touch Screen, 1920*1080
Wi-Fi & Bluetooth	IEEE 802.11a/b/g/n/ac 2.4G/5G & BT4.2
Weight	Less than 1.2 kg
Dimension	333 mm*152 mm*115 mm
Working Temperature Range	-20°C ~ 55 °C
Storage Temperature Range	-40°C ~ 85 °C
Humidity	10%~95% (non-condensing)
Laser Distance Measurement	0.1 – 30 m (±1 mm) (Laser Class II, 620 -690 nm, < 1 mw)
Data Transmission	USB, Wi-Fi
USB Port	Type-C
Battery	Li-Ion Rechargeable Battery
Charging Time	2.5 h (from 10% to 90%) & PD Fast Charging
Protection Level	IP54
Tripod Mount	UNC 1 /4-20
Gas Leakage Detection	>0.0032 L/min from 2.5 m
Mechanical Noise	YES

Dimension



Package List

1. Acoustic Imaging Camera
2. USB Charger
3. Charging Docker
4. Spare battery *1
5. Carrying Case
6. User Manual
7. Factory test report
8. Accessory kit

Safety Notice

Laser Safety Caution

When operating the laser rangefinder, NEVER aim the laser beam at human eyes.

LED Light Caution

Avoid prolonged direct viewing of LED light sources (may cause temporary visual discomfort).
 HERTZINNO shall not be held liable for any equipment damage or personal injury resulting from noncompliant operation (including but not limited to failure to read manuals, laser misuse, etc.).
 Users assume all risks and legal consequences arising from failure to follow safety instructions.

Notes

Please note that parameters are subject to change, and we encourage you to refer to Hertzinnno's official announcements for the most up-to-date information.

Hertzinnno reserves the right to provide final explanations for any changes that may occur.

