Ultrasonic / Sound Camera

PARTIAL DISCHARGE · GAS LEAK · ABNORMAL NOISE DETECTION



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GIS, cloud-based A1 analysis function

From electrical discharges and Gas leaks to various noise sources

Now meet Ultrasonic / Sound Camera with improved performance such as sampling rate, display, UI and more. The newly introduced Ultrasonic / Sound Camera is equipped with GIS and cloud-based AI analysis capabilities to increase user work efficiency. The measurement sensitivity is increased by detecting gas leaks using 112 microphones, measure the following signals in the discharge, abnormal noise, and ultrasonic bands from 2kHz to 100kHz BSR (Buzz, Squak, Rattle) noise it also performs well in measuring high frequency noise.



www.amperis.com



TECHNICAL DATA

HARDWARE

112 Digital MEMS Microphones

USB-C type data transmission And charging

Measurement and analysis up to 100 kHz

Audio and HDMI outputs

5" Bright High Contrast Touch Screen

Available Up to 5 Hours

IR range sensor

LCD Brightness Automatically

SOFTWARE

Visualize real-time sound sources and

Display sound pressure

Multiple/single/Full view source Measurement mode selectable

Real-time air/gas estimated leakage and Loss amount

Real-time PRPD Analysis and Partial Discharge Measurement

Save images and videos (JPG/MP4/WAV)

Digital Zoom

Self-Testing Microphones

Supports Zone(Web/App)

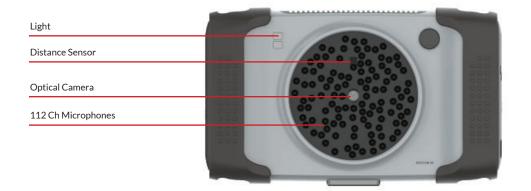
REPORT

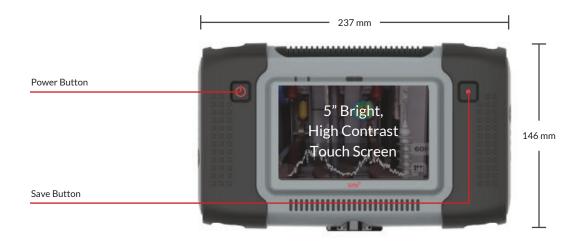
Gas leak report

Estimated leakage flow rate, Estimated annual loss amount, Etc

Partial discharge report

PRPD graph and auto classification







Small and lightweight, making it easy to carry



GPS location can be saved (APP connection)



Cloud-based AI analysis available



SPECIFICATIONS	
Sensor(Microphone)	112 Ch Digital MEMS
Effective Frequency Range	2 k ~ 100 kHz
Acoustic Measurement	Detection threshold 2 kHz: 2.34 dB SPL 20 kHz: 2.22 dB SPL 40 kHz: 1.90 dB SPL 55 kHz: 1.22 dB SPL 70 kHz: 1.84 dB SPL 100 kHz: 20.10 dB SPL
Test Distance	0.5 ~ 200m
Camera pixel / FOV	1024×600
Image Resolution	8MP / Horizontal 63°, Vertical 40°
Frame Rate	25 FPS
Digital Zoom / Auxiliary lights	x2 ZOOM / LED x 2
Display Resolution	5" Color LCD (800 x 480)
Brightness	1000nit (Automatically and manually)
Touch Screen	Capacitive Touchscreen
Data Format	JPG, MP4, WAV
Storage / Video Length	21GB (Save 8,400 Pictures, Video 20hours) / 5min
Product Size / Weight	237 x 146 x 56 (mm) / 1.1kg
Operating time (charging time)	Up to 5 hours (Up to 4 hours)
Operating temperature	-20 ~ 50 °C
Data transfer	USB-C, Bluetooth 5.0 Support
Certifications	KC, CE, FCC
Supported Language	Chinese (Traditional, Simplified), Croatian, Dutch, English, French, German, Japanese, Korean, Portuguese, Russian, Spanish, Thai, Turkish
Save GPS Information	Connects to mobile via Bluetooth
APP	iOS, Android

APPLICATION EXAMPLE

PARTIAL DISCHARGE



GAS LEAK

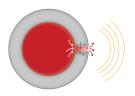


ABNORMAL NOISE

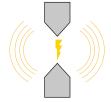


PRINCIPLE OF ULTRASOUND MEASUREMENT

When a gas leak occurs, it results in ultrasonic wave element, higher than the audible frequency. Ultrasonic wave element is also made when electrical arc occurs. Therefore, in noisy environment, ultrasonic wave element can be measured to determination whether or not gas leak and electric arc have occurred and where they have occurred. Ultrasonic / Sound Camera has detected a leak at a distance of $0.5 \, \mathrm{m}$ at $51 \, \mathrm{cc/min}$ ($0.85 \, \mathrm{cc/sec}$) with $1.6 \, \mathrm{bar}$ pressure pressurized.



[When a Gas Leak Occurs]



[When an Electric Arc Occurs]

