





SORAMA PRODUCT SPECIFICATION SHEET AUGUST 2025 V.1

The Sorama CAM iV64Ex is designed to detect even the smallest unwanted emissions (leaks) in hazardous environments, aswell as detecting early anomalies in mechanical systems and high voltage systems (partial discharge). Powerful A.I. onboard computing enables you to check the mechanical health of any operating system.

Offering on board computing results in faster than traditional ways of performing (preventive) maintenance and/or inspections. The Sorama CAM iV64Ex reduces the time a service team is exposed in hazardous environments. Sorama offers storage and in depth analysis of the health status via the Sorama Portal, you can now monitor the performance and the trends of your industrial assets. In addition, the measurements and data output can be easily integrated in any customer ERP/MMS or in your safety & security system, via API.

- > Realtime spectrum
- > Far-field sound source localization and visualization
- > Generation of reports using the Sorama Portal
- > Leak Inspection
- > Partial Discharge Inspection
- > Mechanical Inspection













## **INVENTORY**

| Sorama CAM iV64Ex      | 1 |
|------------------------|---|
| Handstrap              | 1 |
| Neckstrap              | 1 |
| Waterproof travel case | 1 |
| Smart battery          | 2 |
| Battery charger        | 1 |



Touch screen

Strap holder







## **PHYSICAL PROPERTIES**

| Size         | 358 x 173 x 170 mm<br>14.1 x 6.8 x 6.7 inch              | LxWxD  |
|--------------|--|--|
| Weight       | 2.6 Kg<br>5.7 Lb   | Including battery                              |
| Connectivity | Wireless & USB-C   | Dual band 2x2 802.11ac WLAN /<br>Bluetooth 5.1 |
| Battery      | Rechargeable and replaceable battery                     | Battery life ±4 hours                          |
| Tripod mount | Possibility to use with a tripod for longer measurements |  |

# STORAGE

Internal 500 Gb

## **DISPLAY & CAMERA**

| Touch display      | 7-inch LCD capacitive touchscreen |
|--------------------|-----------------------------------|
| Display resolution | 720 x 1280                        |
| Camera resolution  | 1280 x 960                        |

## **ACOUSTICS**

| SNR(A-weighted @1Khz)   | 66dB per channel                | @ 1kHz, 94dB SPL    |
|-------------------------|---------------------------------|---------------------|
| Sensitivity             | -37 ±1 dB FS                    | At 1 kHz, 94 dB SPL |
| Acoustic overload point | 132.5 dB SPL                    | At 1 kHz, <10% THD  |
| Auto min/max            | Auto or manual, user selectable |                     |







#### **MEASUREMENT FEATURES**

| Frequency range         | 10 Hz - 120kHz              |
|-------------------------|-----------------------------|
| Frequency resolution    | 29Hz and 59Hz               |
| Beamforming (far field) | 2kHz - 60kHz, 2kHz - 120kHz |
| Operating distance      | 0.3m to 120m                |

#### **DATA FORMATS**

| Audio + Video | .mp4  |
|---------------|-------|
| Image         | .jpeg |
| Report        | .pdf  |

#### **LEAK INSPECTION**

On device leak inspection can be used to determine a type of leak in a pressurized system and estimate the leak's size. This capture mode is always subjected to environmental conditions. Depending on these conditions (distance, environmental noise), values such as leak rate should be seen as indicative. Estimated flow based on distance and noise in the environment from field-testing:

| Quiet environment | 0.3m to 5m | 0.02I/min to 0.1I/min  |
|-------------------|------------|------------------------|
|                   | 5m to 10m  | O.1I/min to O.2I/min   |
| Noisy environment | 0.3m to 5m | 0.051/min to 0.151/min |
|                   | 5m to 10m  | 0.151/min to 0.31/min  |







#### PARTIAL DISCHARGE INSPECTION

On device partial discharge can be used to find and identify defects in High Voltage (HV) assets. Defects can include voids, gaps, splits, physical sharp points, imperfections or discharges in the open air on/within HV assets. The defect itself discharges as it is not able to insulate the voltage applied across it.

How this defect behaves over time can be made insightful with a phase-resolved partial discharge plot (PRPD). PRPD is a powerful tool used for analyzing and diagnosing PD activity within HV insulation systems.

#### MECHANICAL INSPECTION

On device mechanical inspection tools can be used to identify and detect early faults in machines and assets (faulty or worn-out bearings, pump cavitation, faulty or worn-out rollers etc) over time.

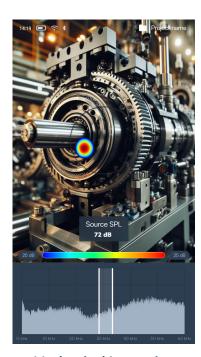
Train the device on healthy machines or assets so that faults that can occur over time can be detected in advance. This allows for preventive maintenance of equipment and assets in order to keep them running and prevent any costly unplanned downtime from unexpected equipment failure.



**Leak Inspection** 



**Partial Discharge Inspection** 



**Mechanical Inspection** 







#### **EXPLOSION SENSITIVE AREAS**

**Ex marking** II 3 G Ex ic IIC T4 Gc

### **OPERATING CONDITIONS**

**Temperature** -10° C to 50° C

14° F to 122° F

IP rating 54

