



## SONASCREEN® Acoustic Camera



The handheld acoustic camera SONASCREEN generates acoustic images from both the audible and ultrasound frequency range. The device locates sound sources in real time and displays the results immediately on the screen. Furthermore, the camera provides audible feedback through industrial headphones. We make ultrasound audible and visible.

### Key Features

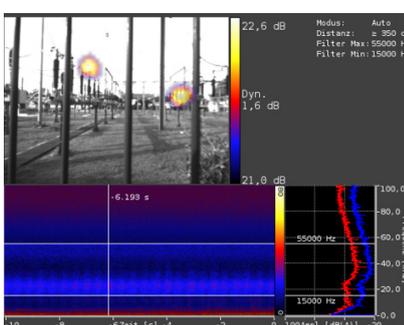
- 72 MEMS microphones
- 24 bit resolution
- Real-time acoustic results at 100 fps
- Sampling rate of 200 kHz
- Wide frequency range: 10 Hz to 100 kHz
- Optical camera
- Integrated data acquisition and analysis software
- Handheld device with IP54 protection
- Integrated LED lights
- 8 configurable buttons for fast control
- Low weight and small size

### Applications



#### Leak Detection

- Broadband ultrasound
- Adjustable bandpass filter to adapt industrial environments with disturbing ultrasound
- Show multiple leaks in one image
- Reporting software for complete leak detection audits
- Provide a gross loss estimation



#### Partial Discharge

- Detect partial discharge in the ultrasonic range
- Recognize typical forms of partial discharge in the spectrogram
- Show multiple partial discharges in one image

## Technical Data

Hardware Features	
<b>Dimension</b>	31 × 16 × 5.5 cm (12.2 × 6.3 × 2.2 inch)
<b>Weight</b>	1.5 kg (3.3 lb)
<b>Protection Class</b>	IP54
<b>Operation</b>	One or two-handed
<b>Battery</b>	Life ~ 3.5h; fully charged in 1.5h
<b>Buttons</b>	8 configurable, power on/off
<b>Environment Temperature</b>	-20 °C to 50 °C (-4 °F to 122 °F)
<b>Charging Temperature</b>	0 °C to 45 °C (32 °F to 113 °F)
<b>Storage Temperature</b>	-30 °C to 60 °C (-22 °F to 140 °F)
Display	
<b>Size</b>	7 inch / 15.5 cm × 8.6 cm
<b>Resolution</b>	800px × 480px
<b>Touch</b>	10 finger capacitive touch
Embedded Controller	
<b>Processor</b>	ARM A53 4×1.2GHz with 1GB RAM
<b>Internal storage</b>	32 GB
<b>OS</b>	Linux for ARM
Interfaces	
<b>USB</b>	For data export
<b>Ethernet</b>	LAN (for running software on laptop/PC)
<b>Audio</b>	3.5 mm for headphones
Sensors	
<b>Microphones</b>	72 digital MEMS
<b>Frequency Range</b>	From 1Hz up to 100kHz
<b>Sample Rate</b>	200kHz
<b>Sound Pressure</b>	Max. 120dB
<b>Resolution</b>	24 bit
<b>Detection Range</b>	Up to 150m
Optical Camera	
<b>Type</b>	Digital
<b>Resolution</b>	320 × 240 (50fps) or 640 × 480 (16fps)
<b>Lighting</b>	4 LEDs
<b>Aperture Angle</b>	70° (FoV horizontal)
<b>Shutter</b>	Global Shutter
Power Supply	
<b>Battery</b>	Li-ion rechargeable battery (48 Wh); Work and charge simultaneously
<b>Input</b>	19V with power adapter

Software Features	
<b>Operation System</b>	Linux (camera), Windows (Laptop/PC)
<b>HMI</b>	Touchscreen, headphones, buttons
<b>Protection</b>	Password (unauthorized access protection)
<b>Online Performance</b>	Up to 100 acoustic fps, up to 50 optical fps; Acoustic pictures, optical pictures, FFT and spectrogram; Listen to local sound (broadband or frequency filtered); Place marker while measuring; Buffer recording, trigger recording (SPL or frequency); Long term measurements (average and peak-hold); Time weighting: fast, slow, impulse
<b>Offline Features</b>	View acoustic results frame by frame; Save and reload; Replay in real-time or slow motion; Listen to local sound
<b>Export</b>	Screenshots, video, sound
<b>Intuitive Usability</b>	Distance settings; Frequency filters (narrow band, 1/3-octave and octave) Dynamic filter and low cut-off; 3 scaling modes: off, auto, smart (crest factor)

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## Applications

- Leak detection
- Partial discharge detection
- Tightness testing



## Sales & Support

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🛡 Certified according to ISO 9001

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