

# SoundSpot

## The Mobile Real-Time Sound Camera



### Introduction

OROS offers the SoundSpot - the lightest handheld real-time sound camera in the market.

In a noisy environment, the most efficient way to decrease the global noise level is to reduce the main noise source. SoundSpot displays a spot on video in real-time, locating the dominant noise source. The recorded data can be post-processed. SoundSpot is based on ACB Engineering patented technology. Its ultra-compact and light-weighted design, user-friendly interface, and fully automatic setup allow users to perform acoustic investigation anywhere immediately.

#### Industries

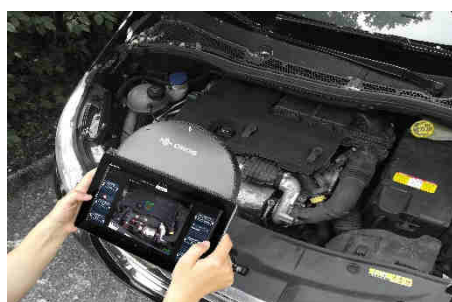
- > Automotive
- > Manufacturing
- > Aerospace
- > Energy and Process

#### Machines

- > Vehicle cabin
- > Engine components
- > Mechanical components
- > Electric appliances
- > Door/Window sealing
- > Leakage detection

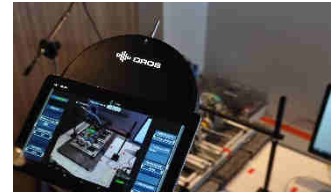
#### Applications

- > Noise localization
- > Noise reduction
- > Quantification of noise radiation
- > Health monitoring and diagnostics



## Main features

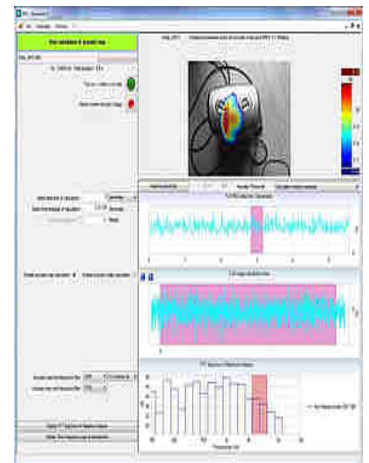
- > Visualize the **dominant noise source in real-time video**
- > Ultra-compact system: the **lightest handheld** sound camera in the market, weight only 0.95 kg / 2.1 lb.
- > Fully automatic setup, ready to use right out of the package
- > Usable anywhere by anybody: no prior acoustical knowledge required
- > Detect both transient and stationary noise sources
- > Acoustic map corresponding to the selected octave band
- > High noise localization performance with only eight microphones thanks to the patented technology
- > Automatic distance measurement by the optical system
- > Sonometer mode to measure sound pressure level in dB or dBA
- > Post-processing software **SoundSpot-office** available



## SoundSpot-office

SoundSpot-office is the acoustic imaging software to **post-analyze** the data exported from the SoundSpot. The data is transferred via Wifi, and it includes microphone time signals, measured distance, and optical video.

- > Generate acoustic picture and video corresponding to any time-frequency area selected from the spectrogram, or the selected frequency bands (oct, 1/3 oct).
- > Acoustic video synchronized with the optical video: can be viewed frame by frame.
- > Provide the spectrum of the dominant noise source (narrowband, oct, 1/3 oct)
- > Recorded microphone signal and localized sound source playback.
- > Acoustic picture and video export in .jpg and .avi format.



## A Powerful and Flexible Range for Your Needs

SoundSpot belongs to the comprehensive OROS solution suite that covers a wide range of applications:



**Data Acquisition and Signal Processing**  
FFT, Recording, Time Domain Analysis



**Structural Dynamics**  
Operating Deflection Shape, Modal Analysis, Bump Test, FRF & Cross-Spectrum



**Rotating**  
Order Tracking, Torsion and Twist, Rotordynamics, Turbomachinery Vibration, Reciprocating Machines Diagnostics, Single, Dual and Multiplane Balancing, Monitoring



**Acoustics**  
1/n Octave, Multichannel Sound Level Meter, Sound Power, Sound Intensity, Sound Mapping & Source Localization, Sound Quality/Psychoacoustics, Near-field Acoustic Holography (Air or Underwater), Transfer Path Analysis, EV/HV NVH



The OROS Teamwork technology enables the analyzers to be cascaded or distributed in order to measure up to 1000 channels. Instruments, conditioners and software licenses are exchangeable and flexible. Results are also easy to share thanks to the native Dataset Management technology. Based on the same platform, same technology and same software, OROS instruments are portable, rugged and real-time.



## Specifications

### Software

Feature	Description
Real-time sound imaging	<ul style="list-style-type: none"> <li>Broadband noise detection</li> <li>Octave bands noise detection</li> <li>Transient noise detection</li> </ul>
Scanning mode	Suitable for noise detection in large spaces
Sonometer mode	Display sound pressure level in dB or dBA (Class 2 microphone included)
Measurement distance	<ul style="list-style-type: none"> <li>Auto focus by the optical system: 0.2 m – 5 m</li> <li>Manual focus: 0.2 m – 100 m</li> </ul>
Frequency range	160 Hz – 5000 Hz
Frame rate	4 acoustic fps
Export via wifi	<ul style="list-style-type: none"> <li>Acoustic picture in .jpg</li> <li>Acoustic video in .avi</li> <li>Data, can be imported into SoundSpot-office for post-processing</li> </ul>
Intuitive usability	<ul style="list-style-type: none"> <li>Frequency filtered sound playback (octave bands)</li> <li>Overload alert / Automatic tuning</li> </ul>

### Microphone Array

Feature	Description
Number of microphones	8
Array diameter	35 cm
Frequency range	20 Hz – 20 kHz
Sampling rate	15 kHz
Resolution	16 bits

### Processor Unit

Feature	Description
Screen Size	10.1", 25 cm x 16 cm / 9.8 inch x 6.3 inch
Resolution	2560 x 1600 pixel
Processor	Quad core 2 GHz with 4G RAM
Storage	60 minutes
Battery	3 hours in intensive use, 1 day in normal use
Tripod socket	1/4 inch
Weight	0.95 kg / 2.1 lb

## Ordering Information

Reference	Description
ORNVS-BF-SS-1	Broadband SoundSpot
ORNVS-BF-SS-2	Broadband SoundSpot, Octave bands option
ORNVS-BF-SS-3	Broadband SoundSpot, Octave bands option, Transient option
ORNVS-BF-SS-O	Acoustic imaging software to post-processing the data exported from SoundSpot

# OROS, Leadership through Innovation

## About Us

OROS has been designing and manufacturing noise and vibration testing systems (instruments and software) for more than 30 years, meeting the requirements and expectations of automotive, aerospace, marine energy & process, manufacturing and automation industries.

## Our Philosophy

Reliability and efficiency are our constant ambition. We know you have the same requirements for your measurement instruments: comprehensive solutions providing guaranteed performance, designed to meet the challenges of your demanding environments.

## Our Emphasis

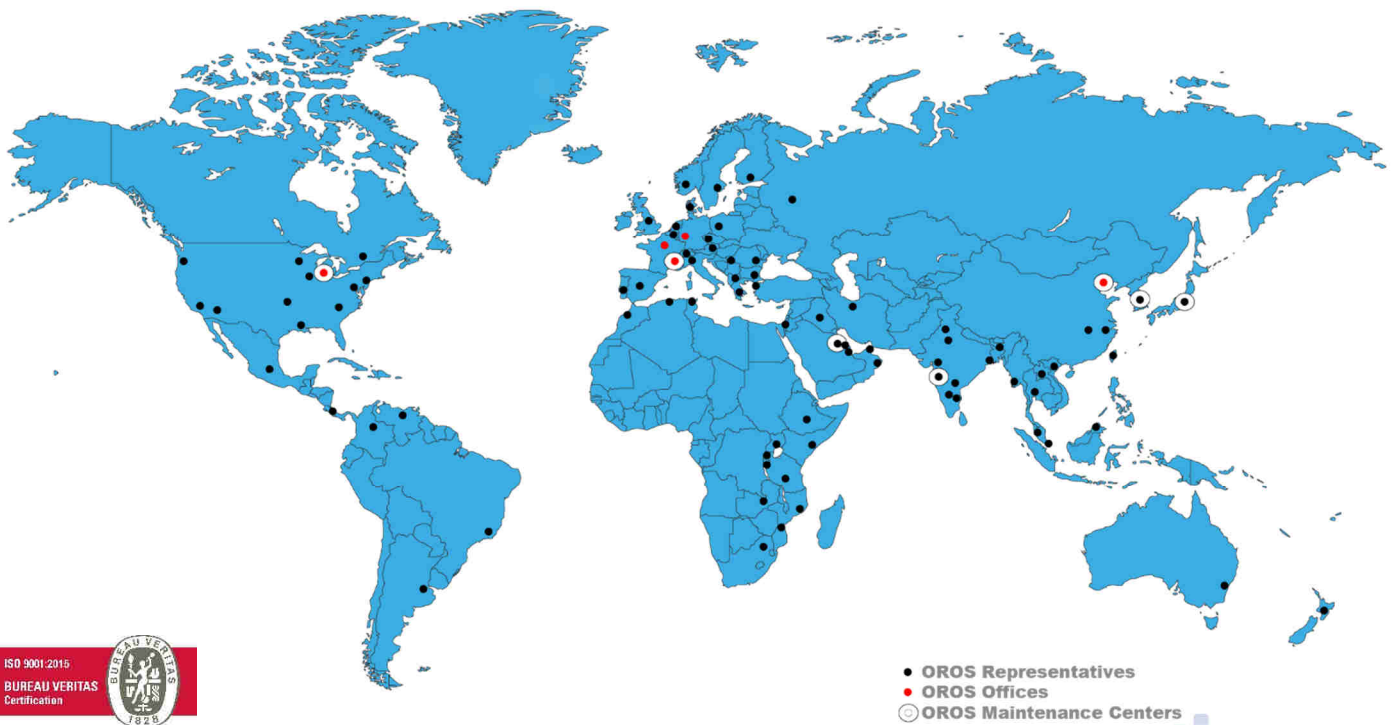
Constantly in tune with your needs, OROS collaborates with a network of proven scientific affiliates to offer the latest in technology in this field, always based on innovation.

## Global Presence

OROS products are marketed in more than 35 countries, through our authorized network of representatives, offices and accredited maintenance centers.

## Want to know more?

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