SOUNDCAM ULTRA SENSOR

Product data

Highlights

- Real-time results at 100 fps
- IP54 protection
- Audible and ultrasound range
- Streaming via Ethernet (TCP/IP)
- Analysis up to 100 kHz

Applications

- Road/traffic monitoring
- EOL testing/quality assurance
- Condition monitoring
- Non destructive testing
- Partial discharge localization

SOUNDCAM ULTRA SENSOR

The First Sound Camera Sensor for Integration

What is SoundCam?

The SoundCam Ultra Sensor is an acoustic camera covering the audible and ultrasonic frequency ranges. It has a USB and an ethernet interface, which allow connection to a remote PC. The supplied PC software will show the location of acoustic events in real-time at up to 100fps, overlaid on the camera image.

One or more of these sensors can be combined into your own applications to form complex machine monitoring, leak detection, or animal or traffic monitoring networks, for example. Since the ultrasonic range is also included, electrical discharge or sparking can be monitored over vast networks.

The light weight, compact and waterproofed design makes it highly suitable for drone use. No other acoustic camera is so small and flexible, opening up infinite possibilities for new applications!

Hardware

Physical Properties	Dimensions	15 x 15 x 7.5 cm (5.9 x 5.9 x 2.9 inch)
	Weight	1.9 kg (4.4 lb)
	Waterproof	IP54
	Housing	Aluminium
	Mounting	4 x M6
	Operating temp	-20°C to 50°C (-4°F to 122°F)
	Storage temp	-30°C to 60°C (-22°F to 140°F)
Interfaces	USB	data streaming and firmware updates
	Ethernet	LAN for data streaming
Sensors	Microphones	72 digital MEMS
	Frequency range	Up to 100 kHz
	Sample rate	200 kHz
	Sound pressure	Max. 120 dB
	Resolution	24 bit
Optical Camera	Type	Digital
	Resolution	320x240 (50fps) or 640x480 (16fps)
	Aperture angle	70° (FoV horizontal)
	Shutter	Global shutter
Output		Acoustic map video
		Video
		Local sound
		Audio spectrum
Communication	Logical	TCP/IP
	Physical	Ethernet or USB-B
Power	Input	9 - 19V with power adapter

Software features

OS	Windows (for Laptop/PC)
HMI	Keyboard, mouse, headphones
Protection	Password (unauthorized access protection)
Online Performance	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
Offline Features	View acoustic results frame by frame
	Save and reload
	Replay in real-time or slow motion
	Listen to local sound
Export	Screenshots, video, sound
Intuitive Usability	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)