

SOUNDCAM BIONIC M

Product data



Highlights

- Modular system
- Big array with 100 cm diameter
- Beamforming and Holography
- Quick toolless assembly
- Integrated battery
- Real-time results at 100 fps
- Input for Trigger and Tacho

Applications

- Automotive
- Machine acoustics
- Railway vehicles
- Building acoustics
- Sound insulation checking



100 cm

SOUNDCAM BIONIC M

The Advanced Modular Sound Camera



What is SoundCam?

SoundCam Bionic is a modular acoustic camera that images sound. The device locates sound sources in realtime and immediately displays the results on the screen. It is as easy to use as a smartphone.

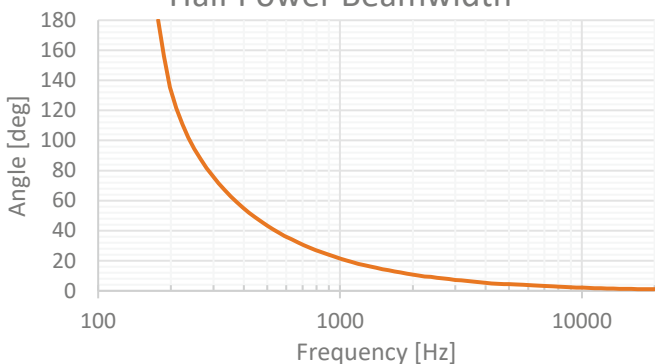
The SoundCam Bionic M microphone array has a diameter of 100 cm and consists of 112 microphones. It is designed for use in the far field and can also be used in the near field from 40 Hz. The optimized microphone arrangement guarantees perfect results.

The seven detachable microphone arms are locked and held by magnets and guarantee a very fast setup and a small packing volume.

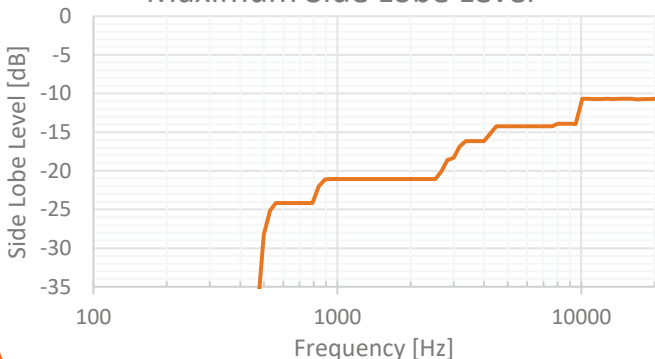
The carrying handle on the device and the integrated rechargeable battery make the SoundCam Bionic M suitable for mobile use.



Half Power Beamwidth



Maximum Side Lobe Level



Hardware

| | | |
|---------------------|------------------|--|
| Physical Properties | Dimensions | 100 x 100 x 15 cm (39 x 39 x 5.9 inch) |
| | Weight | 3.8 kg (8.4 lb) |
| | Waterproof | IP20 or IP54 |
| | Battery | Life ~ 3.5 h; fully charged in 1.5 h |
| | Tripod socket | 1/4 inch |
| | Buttons | 1 configurable + power on/off |
| | Operating temp | -20°C to 50°C (-4°F to 122°F) |
| | Charging temp | 0°C to 45°C (32°F to 113°F) |
| | Storage temp | -30°C to 60°C (-22°F to 140°F) |
| | Display | Size |
| Resolution | | 800 x 480 px |
| Touch | | 10 finger capacitive touch |
| Embedded Controller | Processor | ARM A53 4x1.2 GHz with 1 GB RAM |
| | Internal storage | 32 GB or 512 GB |
| | OS | Linux for ARM |
| Interfaces | USB | For data export |
| | Ethernet | LAN (for running software on laptop/PC) |
| | Audio | 3.5 mm for headphones |
| | Input | Trigger, Tacho |
| Sensors | Microphones | 112 digital MEMS |
| | Frequency range | Up to 24 kHz |
| | Beamforming | 250 Hz to 24 kHz |
| | SONAH | 40 Hz to 2 kHz |
| | Sample rate | 48 kHz |
| | Sound pressure | Max. 120 dB |
| Optical Camera | Resolution | 320 x 240 (50 fps) or 640 x 480 (16 fps) |
| | Aperture angle | 70° (FoV horizontal) |
| | Shutter | Global shutter |
| | Battery | Li-ion rechargeable battery (48 Wh) |
| Power | Input | 19V with power adapter |
| | Management | Smart: work and charge simultaneously |

Software features

| | |
|---------------------|--|
| OS | Linux (on SoundCam), Windows (for Laptop/PC) |
| HMI | Touchscreen, headphones, buttons |
| 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) |
| Offline Features | Time weighting: fast, slow, impulse |
| | View acoustic results frame by frame |
| | Save and reload |
| Export | Replay in real-time or slow motion |
| | Listen to local sound |
| Intuitive Usability | Screenshots, video, sound |
| | 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) |