



Soundcam Mikado

Handheld Acoustic Camera for Troubleshooting Noise and Vibration Problems



The Mikado is the perfect solution for troubleshooting noise and vibration problems. The fully mobile device enables measurements from nearly any location.

As a complete package consisting of a microphone array, data recorder, and Microsoft® Surface Pro with the NoiseImage Mobile software, the Mikado includes all components needed for quick and efficient acoustic measurements and analyses.

Data recording and basic analyses in both the frequency and time domains are possible directly on the device. Features such as the touch screen and manual trigger button ensure fast and easy operation. The Mikado can also be easily connected to your workstation for more in-depth analyses with the software NoiseImage Pro.

BENEFITS

- All-in-One Acoustic Camera
- 3D scanning and beamforming (DynaBeam)
- 100 % autonomous due to rechargeable Bosch batteries (available worldwide)
- Completely flexible during measurement
- Use as handheld or mounted on a tripod
- For beginners and experts

APPLICATIONS

- Troubleshooting noise and vibration problems
- Quality management of products and components
- Leakage detection
- Research & development
- Close-up measurements in aerospace, automotive, electronics and appliances, education and research

The array comes with an integrated Intel® RealSense™ depth camera which features Full HD resolution and the ability to record depth information.



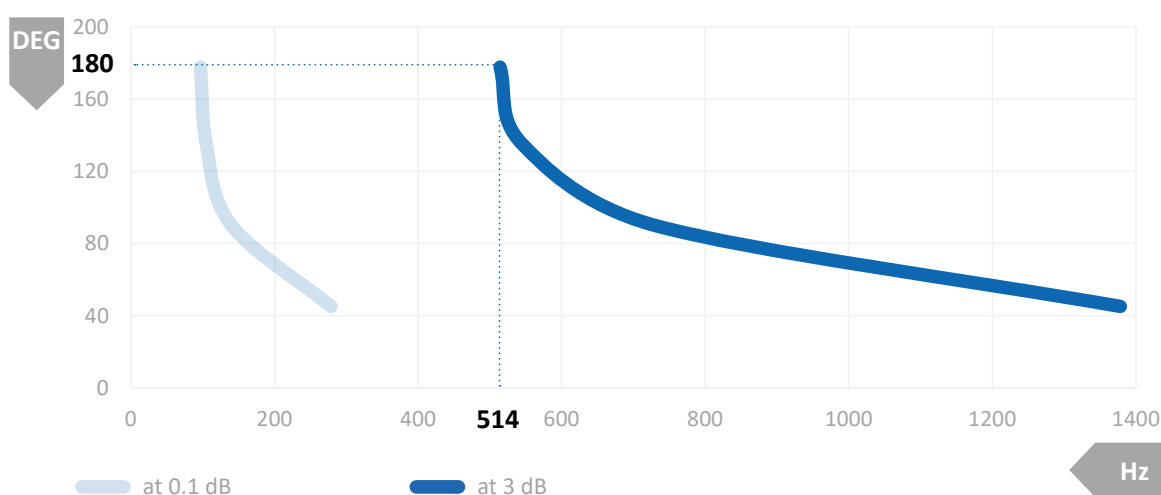
Acoustic Camera Mikado set



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SIZE AND WEIGHT	
Array-body dimensions	45 x 35 x 15 cm
Weight	1.7 kg (3.4 kg incl. battery and Microsoft® Surface)
FEATURES	
Video camera	Intel® RealSense™ Depth Camera D435 opening angle 77°
Resolution	1920 x 1080 (Full HD)
Sampling rate	48 kS/s
Additional channels	4 digital channels
OPERATING CONDITIONS	
Ingress protection code	IP20
Operating environment	0 °C – 35 °C (handheld operation) -10 °C – 45 °C (desktop operation)

MICROPHONE DATA	
Microphones	MEMS (Knowles)
Frequency response	10 Hz – 24 kHz 100 Hz – 5 kHz (< 0.5 dB) 100 Hz – 11 kHz (< 3 dB)
Max. sound pressure level	121 dB at 10 % THD
Noise level	30 dB(A)
Sensitivity (1 kHz, 94 dB SPL)	-26 dBFS
ARRAY DATA	
Channels	96
Recommended measurement distance	> 0.3 m (Beamforming) < 0.15 m (acoustic holography)
Acoustic mapping range	9 dB – 120 dB
Recommended mapping frequencies	514 Hz – 24 kHz (Beamforming) 30 Hz – 2 kHz with near field (acoustic holography)
Dynamic range*	15 dB – 27 dB, up to 50 dB with advanced algorithms



Calculation of the lowest frequency (Hz) at 180° opening angle (DEG)

* Distance to the source: 1 m; calculation points: 90.000

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