



# 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 measurement from nearly any location.

As a complete package consisting of a microphone array, data recorder, and Microsoft® Surface Pro with 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.



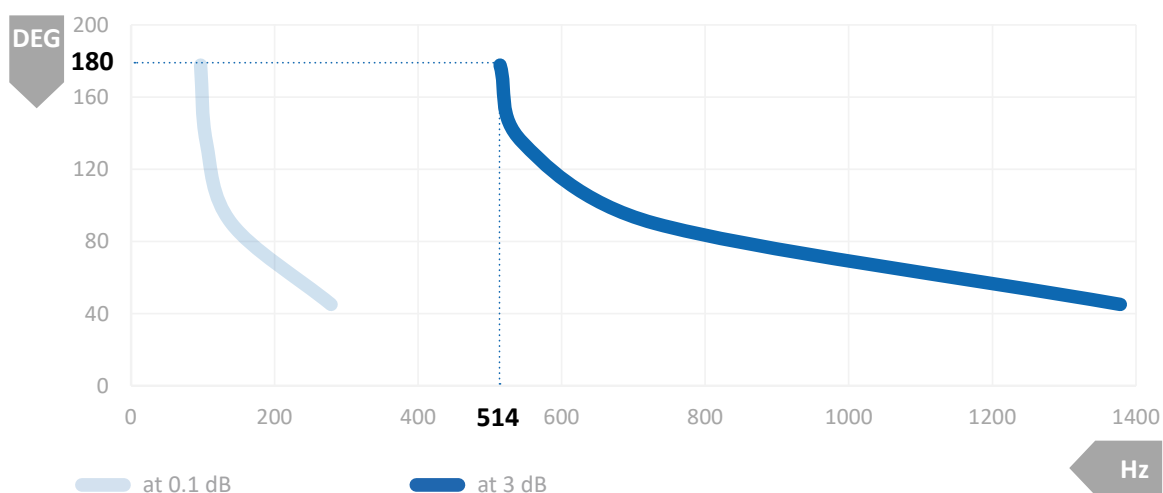
Acoustic Camera Mikado set



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

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