

Mikado

HANDHELD ACOUSTIC CAMERA FOR TROUBLESHOOTING NOISE AND VIBRATION PROBLEMS



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 tablet with NoiselImage Mobile software, Mikado includes all components needed for quick and efficient acoustic measurements and analyses. Data recording and basic analyses in both frequency and time domain based are possible directly on the device. Features such as the touchscreen and manual trigger button ensure a fast and easy operation. Mikado can also be easily connected to your workstation for more in-depth analyses with NoiselImage Pro.

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

BENEFITS

- All-in-one Acoustic Camera
- 100 % autonomous due to rechargeable Bosch battery (available worldwide)
- Completely flexible during measurement
- Use handheld or mounted on a tripod
- For beginners and experts

APPLICATIONS

- Troubleshooting noise and vibration problems
- Quality management of products and components
- Leakage detection
- Closeup measurements in aerospace, automotive, electronics and appliance, education and research



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TECHNICAL DATA

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
Resolution	1920 x 1080 (Full HD)
Additional channels	4 digital channels

Operating Conditions

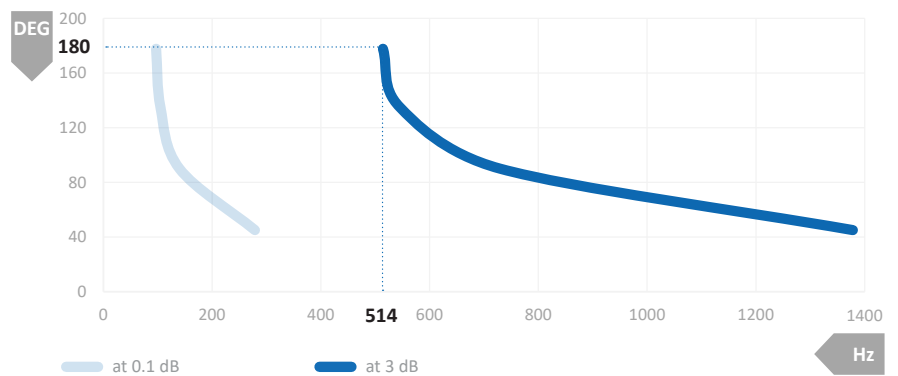
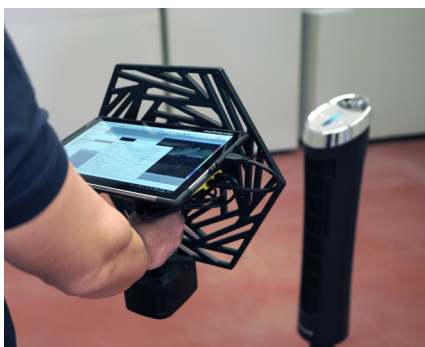
Ingress protection code	IP20
Operating environment	0°C – 35°C (-10°C – 45°C short time measurement)

Microphone Data (by Knowles)

Microphones	MEMS
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
Acoustic mapping range	9 dB – 120 dB
Recommended mapping frequencies	514 Hz – 24 kHz
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