



# Soundcam Octagon

All-in-one Soundcam for Demanding Measurements



## BENEFITS

- All-in-one Acoustic Camera
- Extremely high acoustic dynamic
- Excellent holography results due to high microphone density
- Interface for 4 digital and 4 analog channels
- Acoustically transparent

## APPLICATIONS

- Detailed acoustic analysis of products and components
- Detection of masked sources
- Leakage detection for buildings and pipes
- Correlation measurements order analysis of rotating parts

The Octagon system is the perfect solution for all challenging measurements. 192 microphones in an acoustic transparent frame guarantee high precision with the highest dynamic. Due to the dense microphone distribution, beamforming as well as holography measurements are possible – covering a frequency range from 30 – 24.000 Hz.

The integrated data acquisition makes it a handy system with no set-up time. 4 digital and 4 analog channels can be directly connected to the Octagon for your additional sensors. The array comes with an integrated Intel® RealSense™ depth camera which features Full HD resolution and the ability to record 3D data.

The fiber-carbon construction makes the octagon stable and light at the same time, integrated handles allow for an easy transport or handheld measurements. All these features make the Octagon the perfect system for a wide range of applications in R&D, quality assurance, maintenance or environmental acoustics.



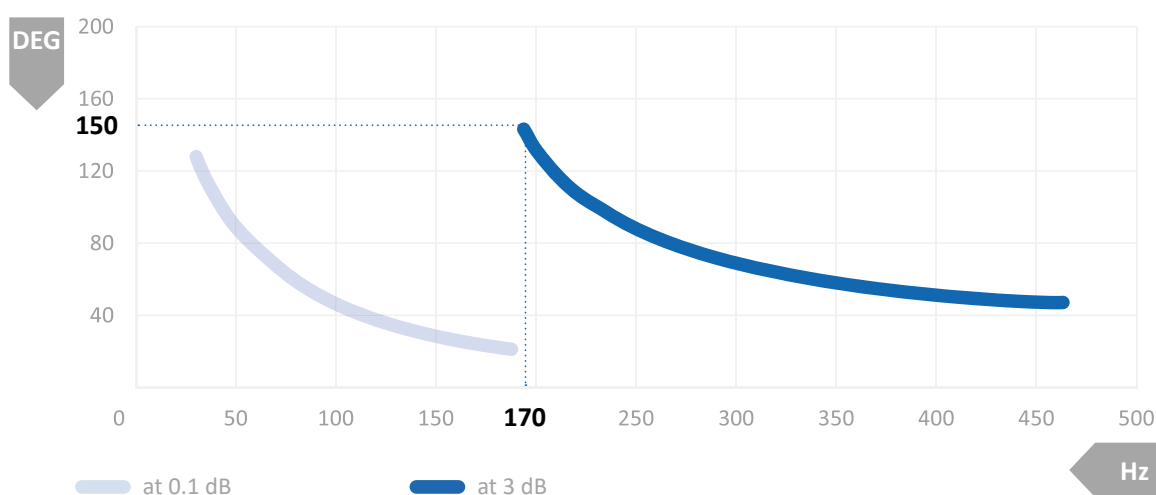
The Octagon can be placed on the ground or on a tripod



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SIZE AND WEIGHT	
<b>Array-body dimensions</b>	90 x 82 x 19 cm (H x W x D)
<b>Weight</b>	5 kg (without tripod, cable)
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 channles 4 analog channles (each switchable dc or voltage-input)
OPERATING CONDITIONS	
<b>Ingress protection code</b>	IP20
<b>Operating environment</b>	-10 °C – 45 °C

MICROPHONE DATA (BY KNOWLES)	
<b>Microphones</b>	MEMS Microphones: Infineon IM69D130
<b>Frequency response</b>	20 Hz – 24 kHz 100 Hz – 10 kHz (< 0.5 dB) 28 Hz – 20 kHz (< 3 dB)
<b>Max. sound pressure level</b>	130 dB at 10 % THD
<b>Noise level</b>	25 dB(A)
<b>Sensitivity (1 kHz, 94 dB SPL)</b>	-36 dBFS
ARRAY DATA	
<b>Channels</b>	192
<b>Recommended measurement distance</b>	> 0.5 m (Beamforming) < 0.15 m (acoustic holography)
<b>Acoustic mapping range</b>	9 dB – 120 dB
<b>Recommended mapping frequencies</b>	170 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

