Acoustic Camera Array Star48 AC Pro

48 Channel System for Outdoor Measurements

The microphone array Star48 is our largest preconfigured array and particularly suitable for outdoor measurements of large objects. The lightweight folding aluminum body of the array ensures a stable and safe setup by just one person.

The array has 48 interference-resistant microphone channels. The recommended measurement distance ranges from four meters up to several hundered meters, depending on the spectral content of the measured acoustic signal and ambient conditions.

Large objects can be measured and analyzed via time and frequency domain acoustic beamforming using the same methods as our smaller microphone arrays. Analysis can be performed quickly using NoiseImage software.

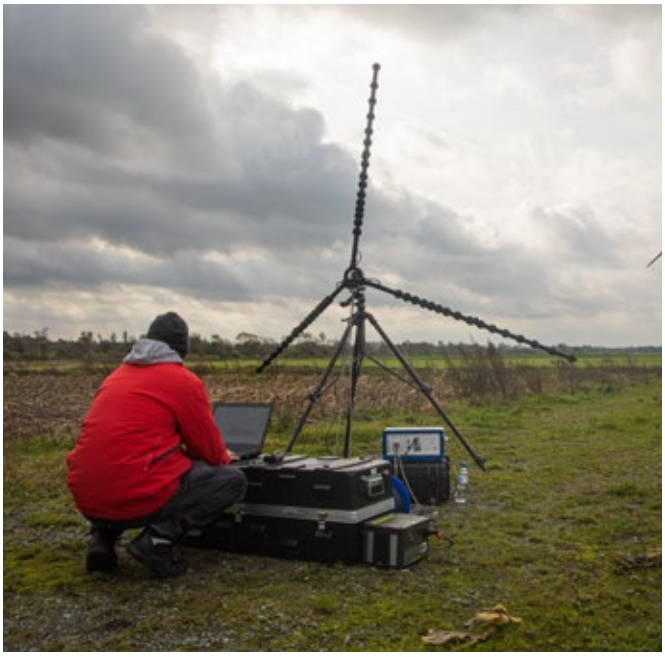
The Star48 features a Baumer VCXG-25C camera to provide ideal reference images for acoustic measurement tasks.

BENEFITS

- Easy handling and accurate microphone positioning
- Distinct array pattern aids in troubleshooting even with non-ideal focus measurements
- Slim aluminum array body
- > -23 dB backward attenuation

APPLICATIONS

- Environmental noise control
- Pass-by measurements of vehicles
- Airplane fly-overs
- Wind tunnel measurements
- Applications with low to mid-range acoustic frequency



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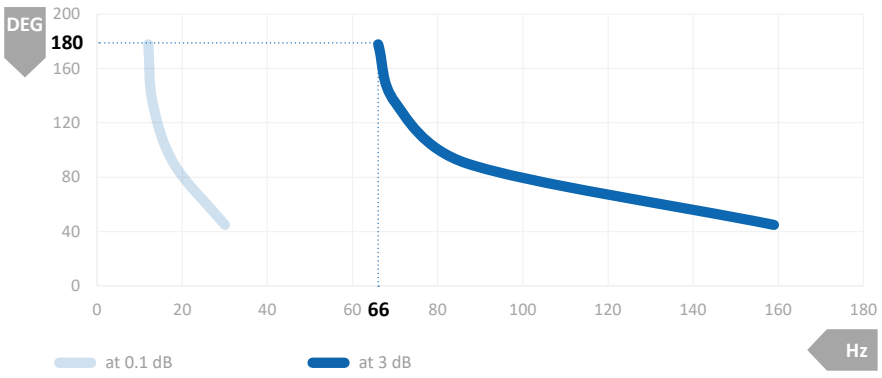
SIZE AND WEIGHT	
Array-body diameter	3.4 m
Weight	7.4 kg
FEATURES	
Video camera	Baumer VCXG-25C
Resolution	1920 x 1080 (Full HD)
OPERATING CONDITIONS	
Ingress protection code	IP20
Cable length to data recorder	up to 20 m (on request: 50 m)
Operating environment	-15 °C – 45 °C, up to 80 % RH

MICROPHONE DATA	
Microphones	Electret condenser capsule + special designed preamplifier
Frequency response	20 kHz – 60 kHz (< 15 dB) 100 Hz – 15 kHz (< 0.5 dB) 20 Hz – 20 kHz (< 3 dB)
Max. sound pressure level	130 dB peak at 3 % THD
Noise level	27 dB(A)
Sensitivity	20 mV/Pa
ARRAY DATA	
Channels	48
Recommended measurement distance	> 4 m
Acoustic mapping range	12 dB – 130 dB
Backward attenuation	> -23 dB
Recommended mapping frequencies	66 Hz – 13 kHz
Dynamic range*	7 dB – 9 dB, up to 50 dB with advanced algorithms



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

* Distance to the source: 7 m; calculation points: 90.000

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