



Array Star48 | AC pro

48 channel system for various measurement scenarios



At a glance:



Star48 | AC pro

48 microphones

3.4m diameter

aluminum array structure

6...7 dB single map dynamic (CBF)

recommended mapping frequencies: 100Hz...13kHz

recommended measurement distance: 7...500m

This array has been used for the following applications:

environmental applications

pass-by applications

windtunnel measurements

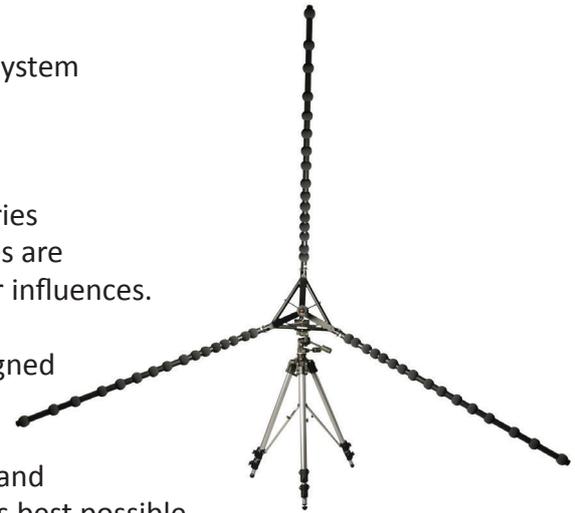
building acoustics

airplane fly-overs

This Star array is a 48 channel measurement system designed for outdoor applications.

Depending on a signal's spectral composition, the recommended measurement distance varies between seven and 500 meters. Longer ranges are possible with consideration of wind and other influences.

The lightweight aluminium array-body is designed as slim as possible to ensure easiest handling and accurate microphone positioning. The wiring of the microphones is enclosed in and protected by the array-body which guarantees best possible acoustic transparency to measure accurate sound levels. The array is foldable and fits in a mid-size station wagon. This array design represents a compromise between portability, map dynamic and spatial resolution. Additionally, the array pattern is easy to identify and indicates wrong focus settings while still pointing to the source's position. As this microphone array has 20dB backfield suppression by design it can be used in most outdoor applications.



The built-in studio microphones have an extremely linear frequency response. All are carefully hand selected and calibrated to ensure stable sound pressure levels (+/- 0.5 dB). To allow long distances the array is connected to the data recorder via two differential SymBus microphone connector cables (max. 20m).

The array comes with an integrated fixed focus Ethernet camera, delivered in different sensor sizes, resolutions and frame rates.

The included high-end tripod allows set-up in almost any measurement environment imaginable. Array and tripod are supplied in transport bags.

With this system, high quality acoustic images are acquired within seconds.



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Technical Characteristics:



Aluminium array-body diameter: 3,4m

Weight: 7.4kg

SymBus microphone connectors via differential conditioning

Advanced disturbance tolerant ¼" symmetrically buffered electret pressure receivers (based on Sennheiser microphone capsule 4211)

Number of microphones: 48

Frequency response of microphones: 20Hz...20kHz

Dynamic range of microphones: 28...130dB (A-weighted)

Acoustic maps from 11dB - 130dB

Max. equivalent sound level: 130dB

Symmetrical output resistance: 100 Ω

Recommended measurement distance: 4...500m

Recommended mapping frequencies: 100Hz...13kHz

Single map dynamic: 6 - 7dB (CBF) using HDR 20 - 40dB

Backward attenuation: up to 20dB

Connecting Array Cable length to data recorder: 1...20m

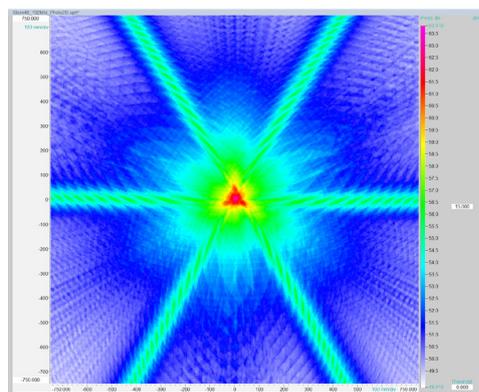
Video camera: Ethernet, different frame rates and resolutions available

Ingress protection code: IP20

Operating environment: 0°...45°C, up to 80% r.h.

Components:

- Array mounted on camera quick release plate
- High-end Manfrotto tripod with three-way head
- Protective transport box (10.8kg)



Array-pattern

70dB white noise source at 15m distance

192kHz sampling frequency

Displayed at 15dB map dynamic

The aliasing figures point towards the source