

Eta450 Ultra

optical microphone



昊量光电

moving sounds without moving parts

Xarion
laser acoustics

Acoustic specifications

| | |
|--|---|
| Transducer type | Membrane-free, optical |
| Frequency range | 50 kHz - 2 MHz |
| Dynamic range | 100 dB |
| Self-noise | 5 μ Pa (BW: 1 Hz, measured @ 500 kHz) |
| Self-noise, full bandwidth | 10 mPa |
| Max. sound pressure for THD < 3% | 40 Pa |
| Max. sound pressure level for THD < 3% | 126 dB rel. 20 μ Pa |
| Damage threshold | > 194 dB rel. 20 μ Pa |
| Sensitivity | 100 mV/Pa @ 1 kHz (0 dB gain, 50 Ω) |
| Polar pattern | Omnidirectional |
| Sound field optimization | Free field and pressure field |
| Calibration | Yes, standard calibrators (with adapter) |

General specifications

| | |
|---|--|
| Sensor output | \pm 15V (high impedance), \pm 7.5V (50 Ω) |
| Sensor output voltage connector | BNC |
| Size of sensor head | diameter: 5 mm; length: 35 mm |
| Weight of sensor head | ca. 10 g |
| Fiber cable length | 5 m (other upon request) |
| Size of control unit | 220 mm x 334 mm; height: 93 mm |
| Weight of control unit | 8 kg |
| Power supply (signal conditioning unit) | 120/230V \pm 5%; 50/60 Hz |
| Power consumption | < 50W |
| Operating temperature of sensor head | 10 $^{\circ}$ C to 40 $^{\circ}$ C (50 $^{\circ}$ F to 100 $^{\circ}$ F) |

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