

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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