

# Active Loop Antenna – LAX-10, 9 kHz – 30 MHz

for H-Field measurements



## Description

Active, shielded loop antenna with nearly constant antenna factor over the entire frequency range, battery driven to minimize disturbance influence from power line. Combined with a CISPR-16 EMI-receiver a convenient field strength measuring system with low noise and pulse measuring capabilities is composed. The LAX-10 can also be used with a spectrum analyzer. The shielded aluminum housing is equipped with rubber feet for desktop operation or can be mounted to a tripod using the female camera thread (3/8") at the bottom. A protection circuit against deep discharge provides a long battery lifecycle. The battery must be recharged after an automatic switch off.

A full battery charging period using the recommended charger takes around 5 hours. The PWR-switch must be set to OFF during the recharging period, otherwise no charging takes place. The charging connector is disabled while the PWR switch is set to ON (normal measuring operation), this avoids disturbances generated by the charger having an unwanted influence on the measurement.

## Application

The active loop antenna LAX-10 can be used for the frequency selective measurement of magnetic fields in the long wave, mid wave and short wave frequency ranges. It can be used for testing according to CISPR, MIL, FCC, EN, ISO, ANSI, ETSI and many other standards.

## Technical specifications

Type:	LAX-10
Nominal frequency range:	9 kHz – 30 MHz
Connector, female:	50 Ohm, BNC
Antenna factor for fict. E-field strength:	20 dB / m
Antenna factor for H-field strength:	-31.5 dB / $\Omega$ m
Loop diameter:	0.5 m
Fieldstrength measuring range QP-Detector / 9 kHz IF-Bandwidth:	30 – 130 dB $\mu$ V/m
Fieldstrength measuring range AV-Detector / 200 Hz IF-Bandwidth:	8 – 130 dB $\mu$ V/m
Broadband impulsive field strength:	
20 ns, 100 kHz pulse rep. freq.	90 dB $\mu$ V/m
20 ns, 20 kHz pulse rep. freq.	76 dB $\mu$ V/m
20 ns, 10 kHz pulse rep. freq.	70 dB $\mu$ V/m
Frequency response:	< +/- 1 dB
Operation time with full battery capacity:	> 20 h / typ. 24 h
Battery capacity:	12 V Pb 2.4 Ah
Recommended charger:	ALCS 2-24A
Operation indicator: Green LED	> 10.2 V
Batt. reserve indicator: LED red and green	9.8 V – 10.2 V
Automatic switch off LED red (terminating):	< 9.8 V
Mounting thread:	3/8"
Dimensions:	520 x 615 x 160 mm
Weight:	4.0 kg