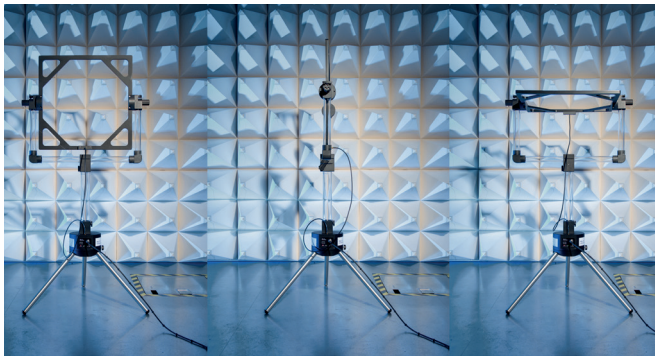
SEIBERSDORF LABORATORIES

PLA-R RECEIVE ANTENNA

PRECISION LOOP ANTENNA



The PLA-R antenna is an active, battery powered loop antenna for fully compliant radiated disturbance measurements. Due to the broad frequency range from 9 kHz to 30 MHz it is suitable for all emission standards.

A very low noise floor allows for compliance measurements with low limits. Furthermore, the passive operation mode ensures that strong emissions e.g. from wireless charging applications don't overload the preamplifier.

With the integrated tripod, positioning is convenient and fast as the loop antenna needs to be oriented in x, y and z orientation. Two integrated laser pointers support the alignment.

SATURATION INDICATION

The patent pending circuit avoids erroneous measurements. In case of overload the PLA-R generates a pulsed signal which saturates the EMI receiver. The detection is done “automatically” by the EMI measurement software. No further saturation control mechanism is required. This works with all modern EMI receivers and test software.

PRODUCT HIGHLIGHTS

- Active and passive operation
- Patent pending saturation indication
- Very low noise floor
- Fully compliant to CISPR 16-1-4
- Integrated tripod with laser alignment
- Battery powered
- Accredited calibration included
- Transport/Flight case included

TECHNICAL DATA

Frequency range	9 kHz - 30 MHz
Antenna area	Square, 60 cm side length
Antenna height (center)	1.3 m
Antenna output VSWR	<1.1
Connector type	Type N female
Pulse generator	
- Voltage	30 V
- Pulse repetition frequency	10 kHz, 1 MHz
- Pulse width	200 ns, 12 ns
Temperature stability of antenna factor	± 0.1 dB
Battery operation time, continuous use	>24 h
Batteries	internal, 10 cell NiMH, factory serviceable only
Laser	Class 2
Temperature operating range	10°C - 35°C
Dimensions of Antenna Set (flightcase)	89 x 83 x 28 cm, weight 32kg
Weight of Antenna including tripod	12.5 kg

www.seibersdorf-laboratories.at/PLA-R

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PLA-R ACTIVE LOOP ANTENNA
PRECISION LOOP ANTENNA - PLA

FIGURES

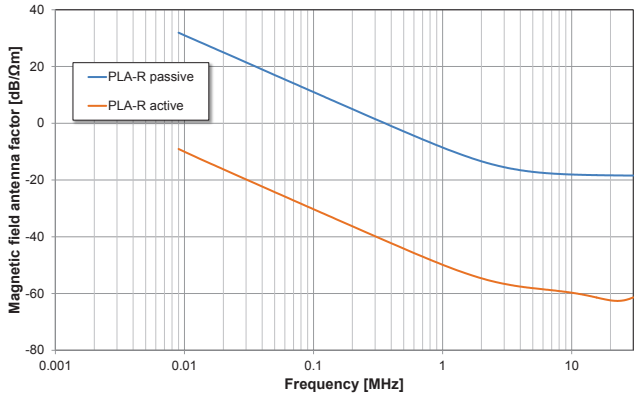
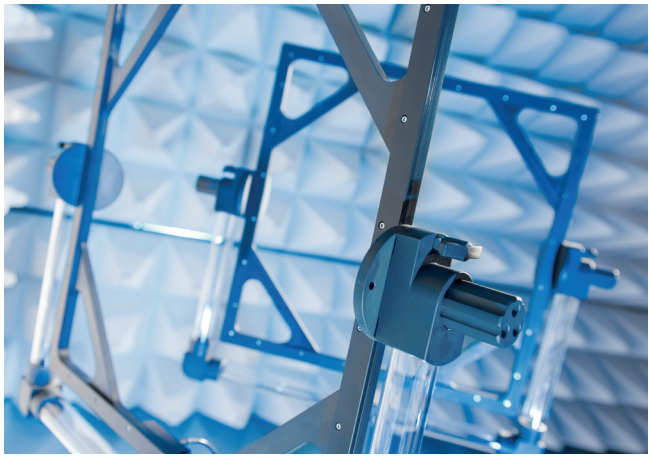


Figure 1: Magnetic antenna factor in active and passive mode



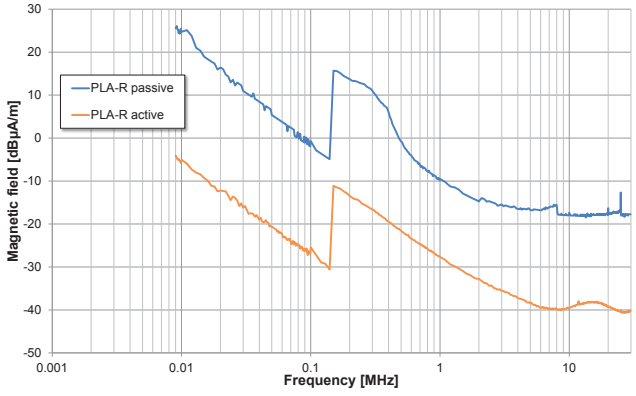


Figure 2: Noise floor for RE measurements in active and passive mode using Quasi-Peak detector

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