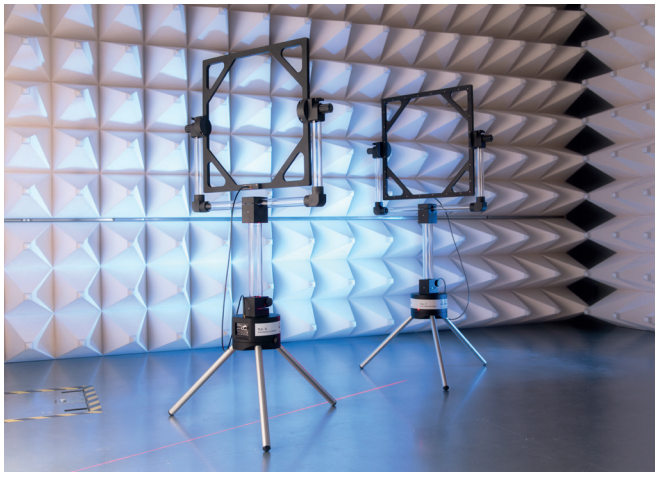
SEIBERSDORF LABORATORIES

PLA-SET FOR SITE VALIDATION

PRECISION LOOP ANTENNA



The PLA set consists of two active, battery powered loop antennas intended for site validation. With the broad frequency range from 9 kHz to 30 MHz it is suitable for Normalized Site Attenuation (NSA) measurements and Shielding Effectiveness (SE) measurements.

Normalized Site Attenuation (NSA) measurement at 3 m, 5 m and 10 m distance is convenient due to sufficient dynamic range, all required documentation and calibration. Setup and alignment is easy with the integrated tripod and laser system. A decoupling unit to avoid ground loops is included.

The high dynamic range of the PLA-Set is a benefit for Shielding Effectiveness (SE) can be measured with a high dynamic. No external power amplifier or low noise preamplifier is required.

PRODUCT HIGHLIGHTS

- Active transmit and receive antenna
- Integrated tripod with laser alignment
- High of transmit power
- Very low noise floor
- Battery powered
- Accredited calibration included (Antenna Pair Method)
- Transport/Flight case included

APPLICABLE STANDARDS

- CISPR 16-1-4 (draft)
- EN 50147-1
- IEEE 299

TECHNICAL DATA

	PLA - T	PLA - R
Application	transmit	receive
Frequency range	9 kHz - 30 MHz (broadband stage) 9 kHz – 200 kHz (current stage)	9 kHz - 30 MHz
Antenna area	Square, 60 cm side length	
Antenna height (center)	1.3 m when mounted on the antenna stand	
Temperature stability of antenna factor Laboratory (20° C - 25°C) Field use (10° C – 35° C)	 ± 0.05 dB ± 0.25 dB	 ± 0.025 dB ± 0.1 dB
Battery operation time	>8 h typical use for SE and NSA measurement	>24 h continuous use
Batteries	internal, 10 cell NiMH, factory serviceable only	
Laser	Class 2	
Dimensions of Antenna Set (flightcase)	89 x 83 x 53 cm, weight 62 kg	

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FIGURES

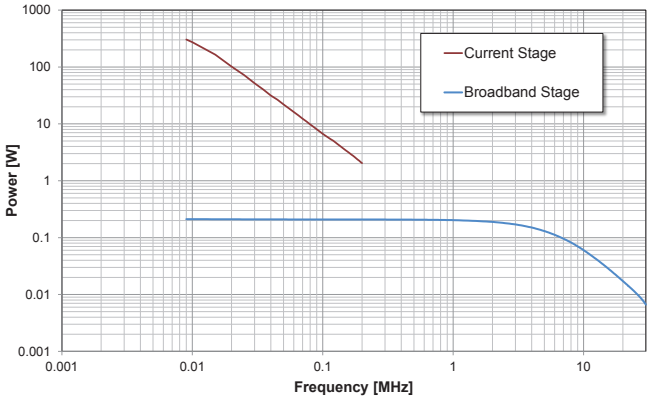

Figure 1: PLA – T: Equivalent RF transmit power in a 50 Ohm system

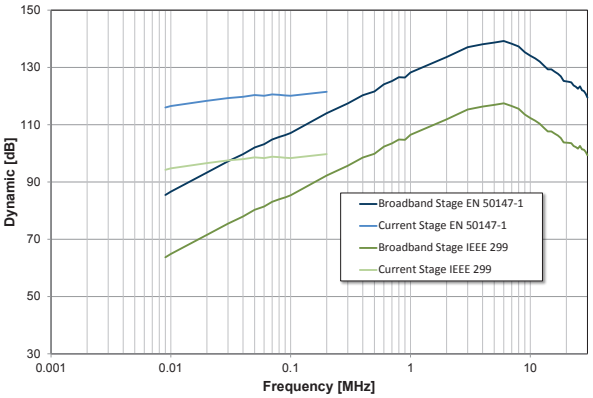

Figure 3: Dynamic range for Shielding Effectiveness measurement using 10 Hz resolution bandwidth

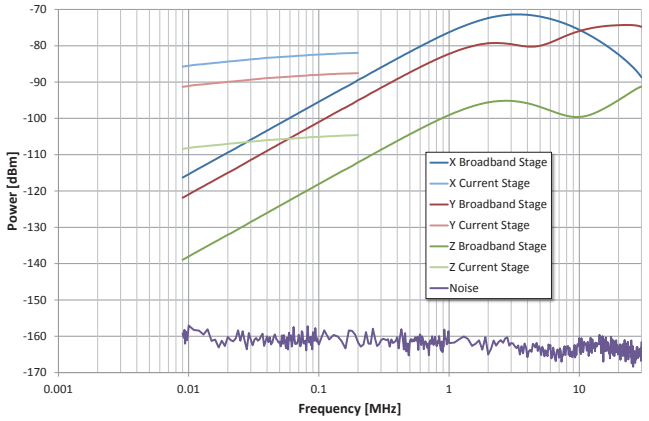

Figure 2: Signal levels for 10 m Normalized Site Attenuation measurement using 10 Hz resolution bandwidth