Double Stacked Log.-Periodic Antenna – AXL-80, 80 MHz – 4 GHz

for immunity tests and emission measurements

Description

Double-stacked log.-periodic antennas have mainly been developed in order to reach the highest field strength levels acc. to automotive-, avionics- and military standards with as less as possible input power. **Antenna gain saves amplifier power!**

The stacked design helps to focus the directional pattern of the H-plane somewhat, resulting in a typical gain improvement of 2.5dB compared to an ordinary LP antenna. This is especially important for immunity testing, where a maximum field strength and a good field uniformity is required. The beamwidth in the E-plane and the H-plane are nearly identical, providing an optimized illumination of the EUT with minimized ground reflection influence.

Further the cross polar rejection of the AXL-80 is excellent and the high and flat gain of about 9dBi over a broad frequency range is the main advantage of the AXL-80. Because of its physical dimensions the main application of the AXL-80 is in bigger anechoic chambers / test sites for radiated immunity tests and emission measurements. From its technical / mechanical design it is a double- stacked log.-periodic antenna, consisting of two excellent ordinary log.-periodic structures. For easy transport and storage it is possible to remove the rear elements of the antenna, which are fixed by fast links.

Technical specifications

Type:	AXL-80
Frequency range:	80 MHz to 4 GHz
Max. input power	1.5 kW (intermitt.)
(N-connector):	1 kW (cont.)
Max. input power	3 kW (intermitt.)
(7 / 16-connector):	2 kW (cont.)
Nominal impedance:	50 Ohm
Isotropic gain:	9 +/- 2 dBi
Antenna factor:	2 ... 30 dB/m
Standing wave ratio SWR typ.:	1.5 (f < 3GHz)
Front to back ratio:	8 - 22 dB
Cross polarization:	> 30 dB
3 dB beamwidth typ. (E-Plane):	60° - 75°
3 dB beamwidth typ. (H-Plane):	50° - 65°
Dimensions (W x L x D) in mm:	1850 x 1460 x 1955
Weight:	11 kg
Fixation:	ø 22 mm mounting tube
Use:	Emission measurements
	Radiated immunity tests

Measurements